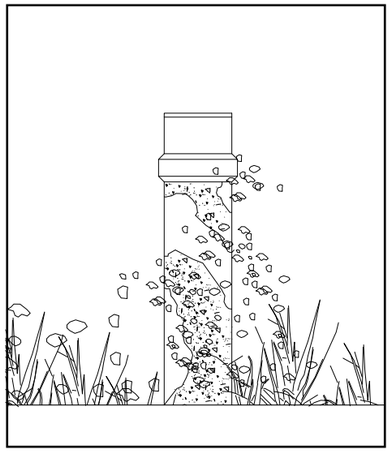
independent group 2020



Gardens of Dialectics

A story of decay and reconstruction.

presentation

Jacopo Zani

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Introduction

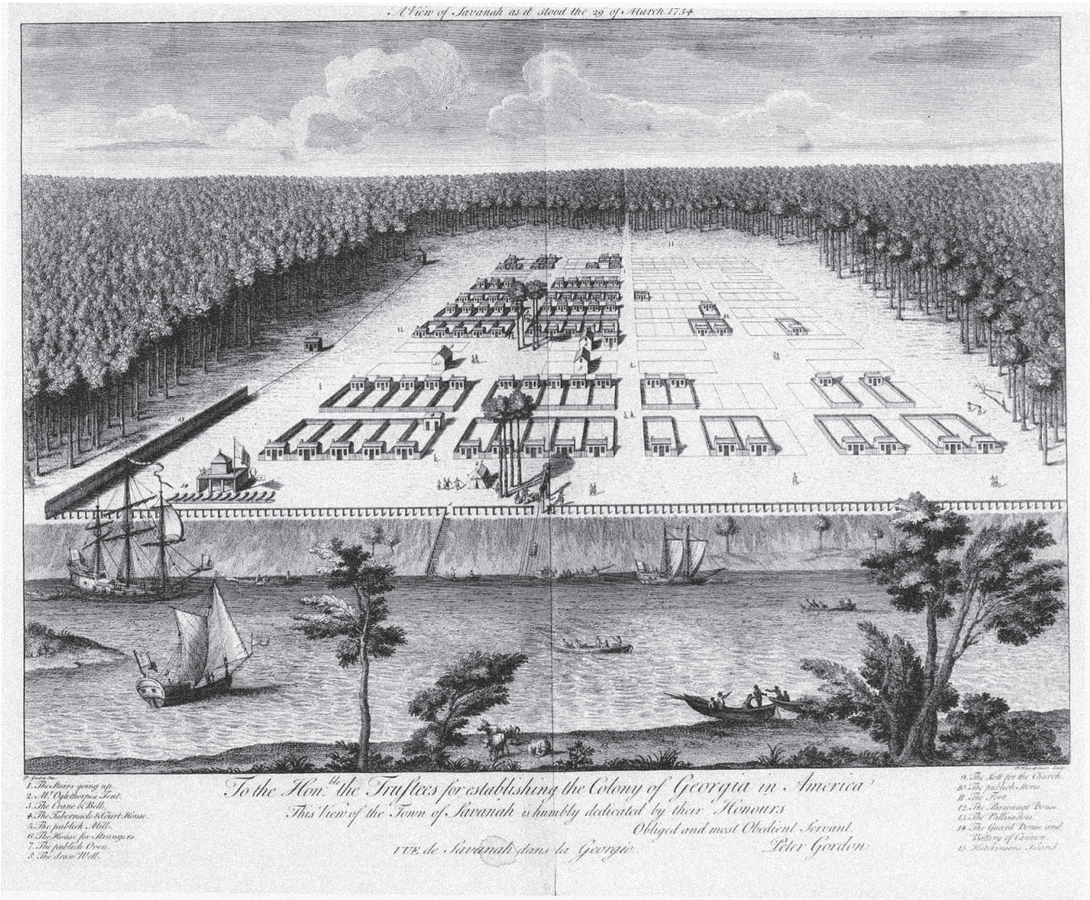
The project wants to propose an operative method to rediscuss the future of worker's suburbs facing economic and demographic crisis caused by the dismission of industrial activities.

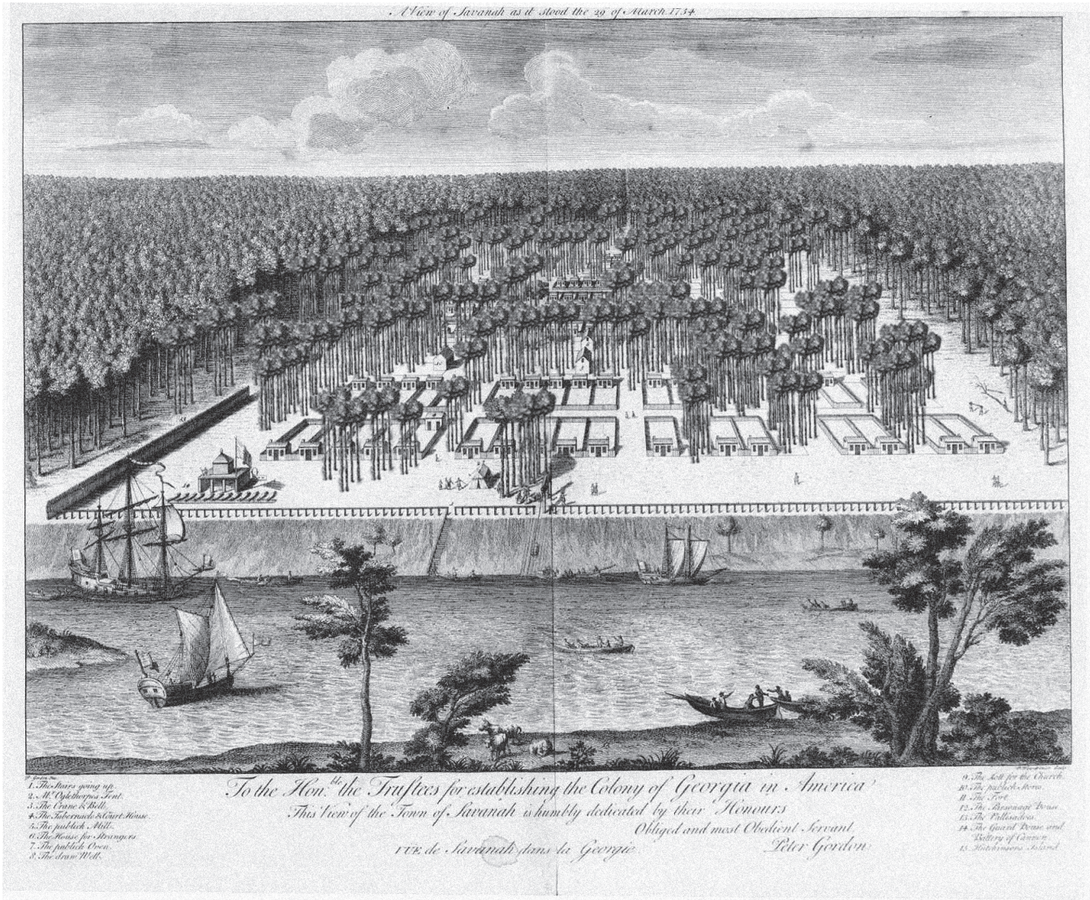
garden suburbs

Garden ababrs are originated by the dispersion of laborers in the green landscape. Originally implemented as a strategy to better control worker's communal and personal life.

decay

Today, many worker's suburbs are facing the dismission of industrial activities and demographic crisis, causing decay and abandonment that deeply affect communities and their identity.

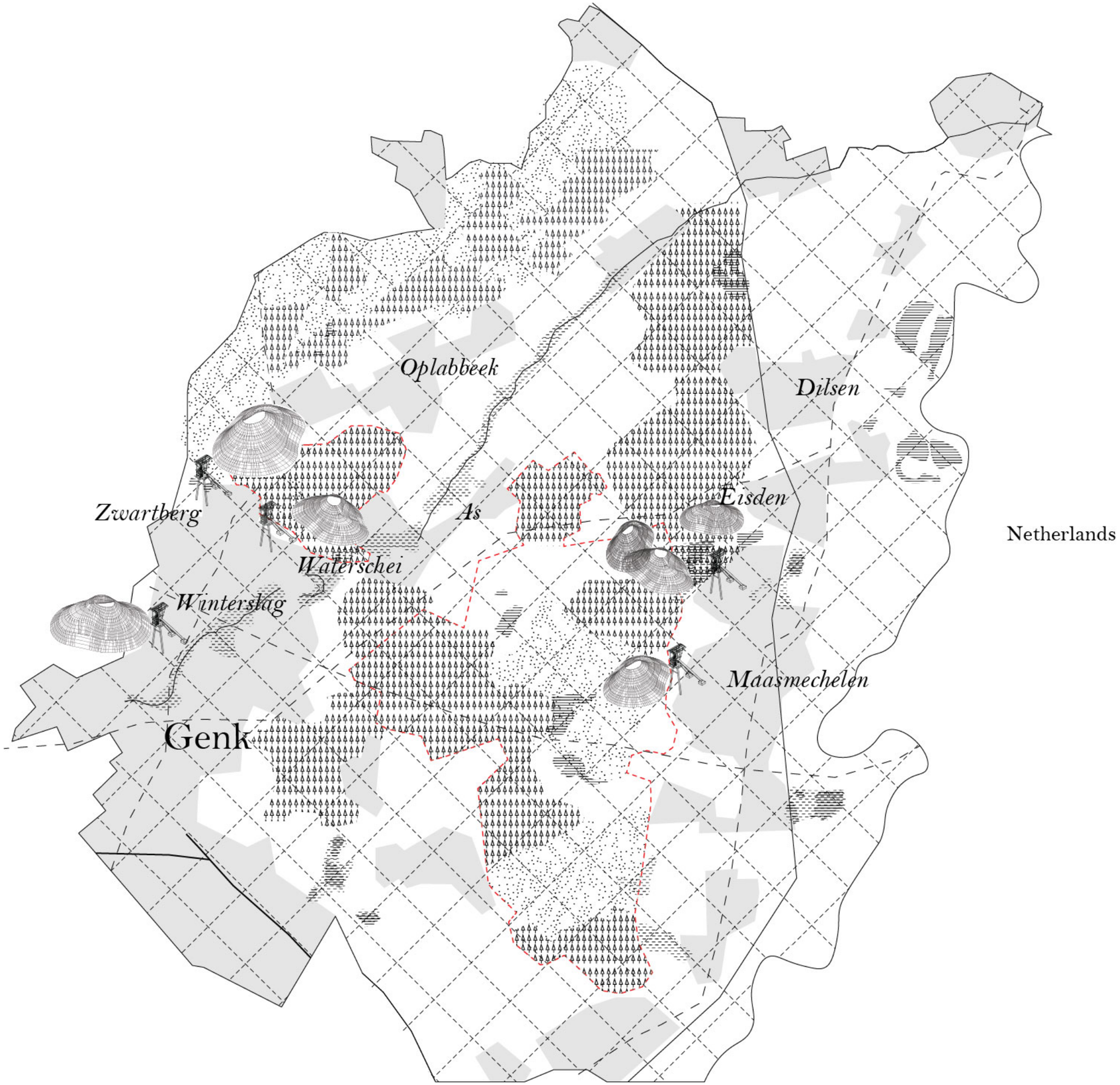




New beginning

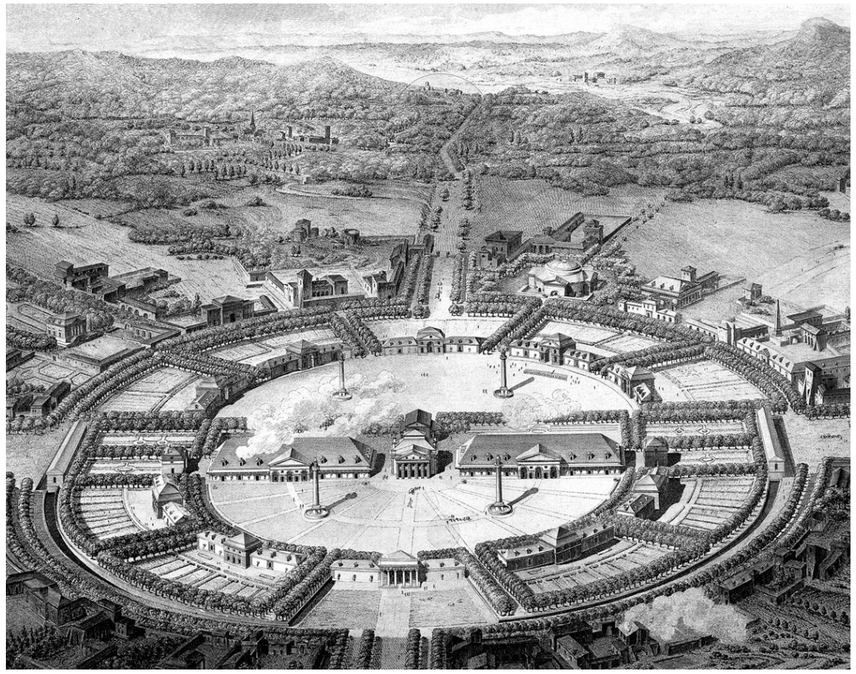
How to elaborate a notion of new beginning within the dissolution of modern settlements?

Which values can give new meanings to life in this context of abandonment?



Kempens Plateau

The Kempens Plateau perfectly depicts the dynamics that shapes many suburban settlements developed around the industrial system.



rationalized territory

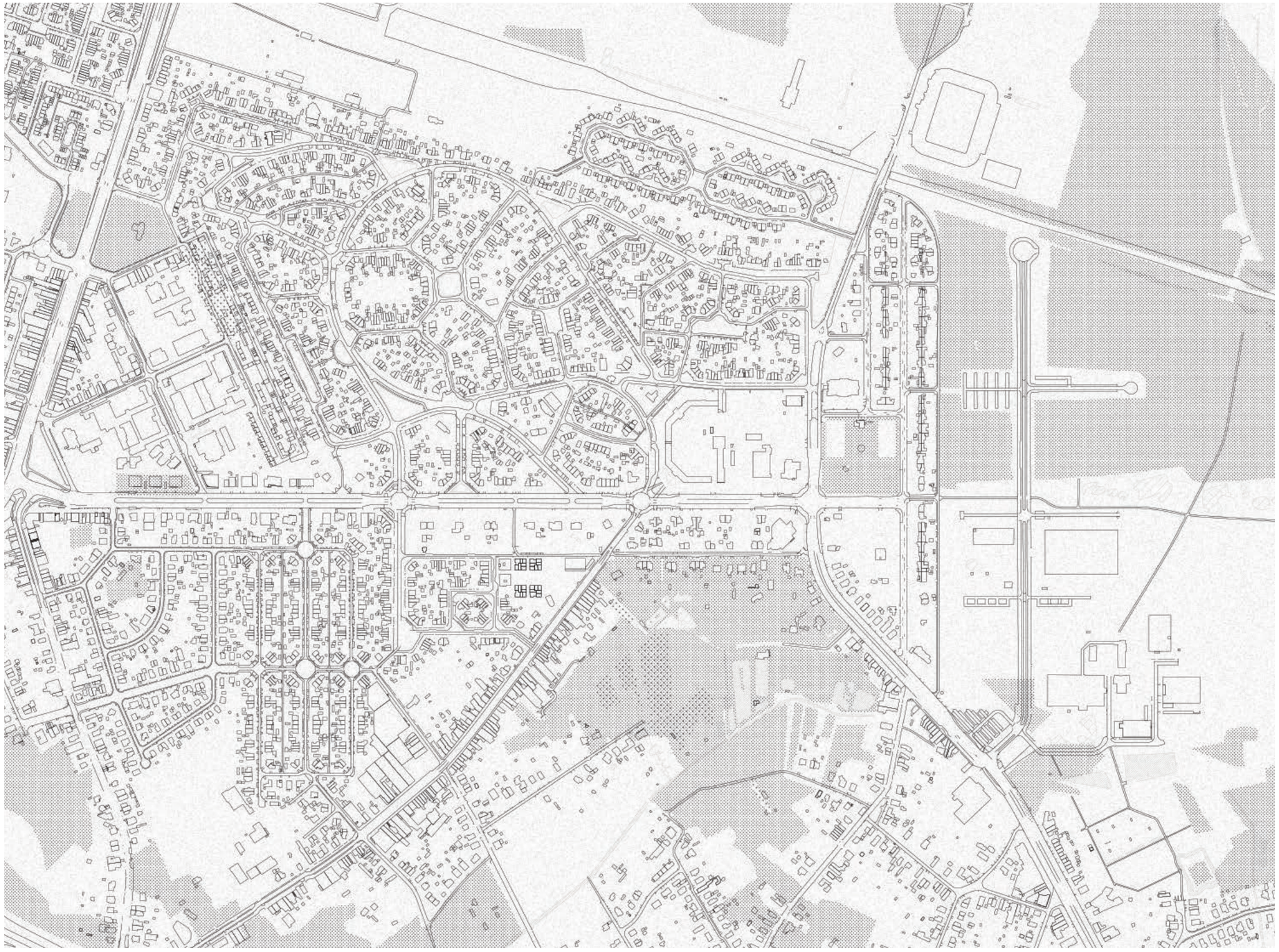
The territory of this and other industrialized regions has been deeply rationalized to enhace an infinitely expanding exploitation.

Genk

The city of Genk, rapidly grew around the opening of three mines and the construction of the Company Towns of Waterschei, Winterslag and Zwartberg.

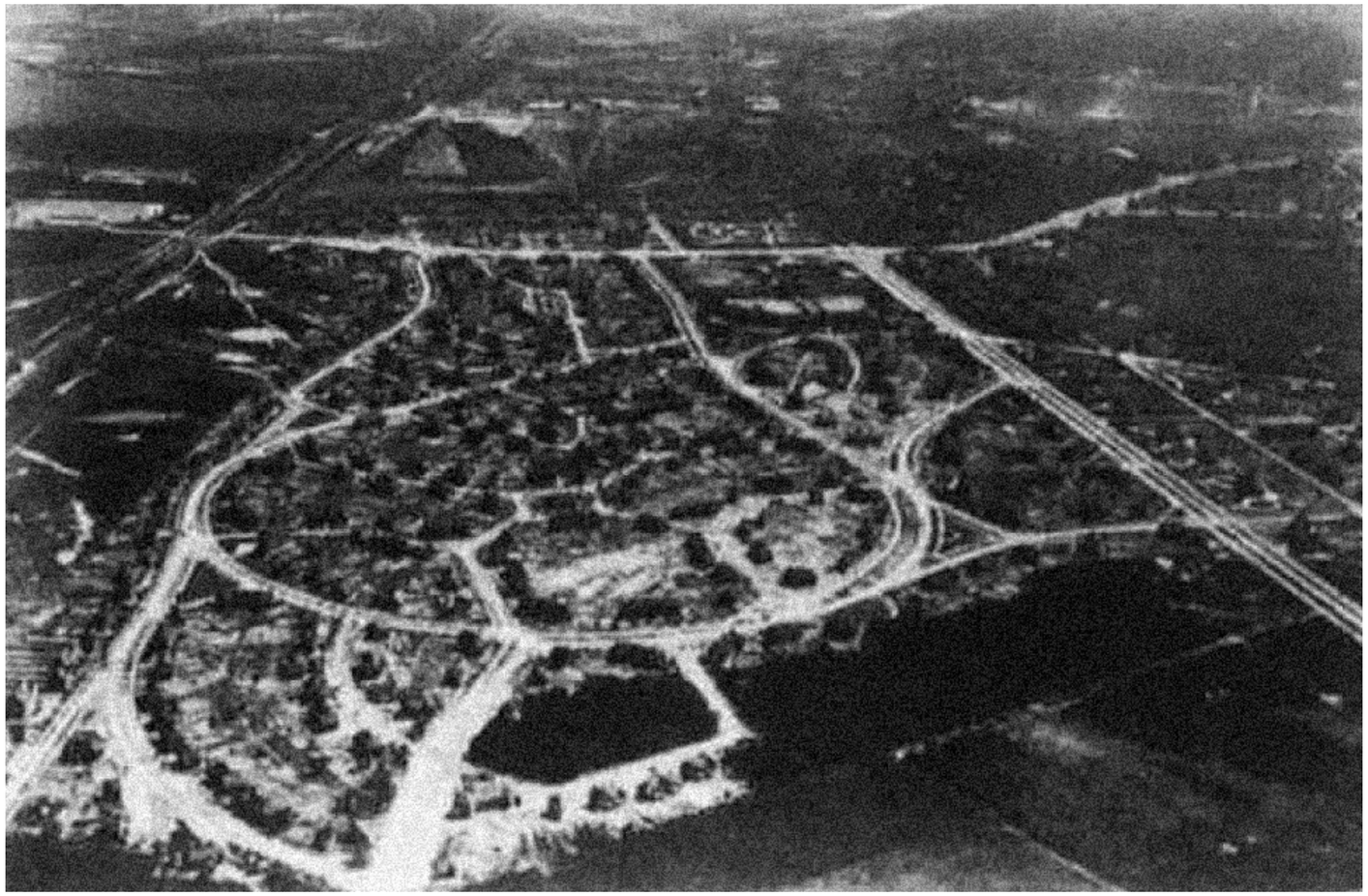
changings in society

The new city was based on the idea that time and effort spent on other activities than economic ones, was wasted.



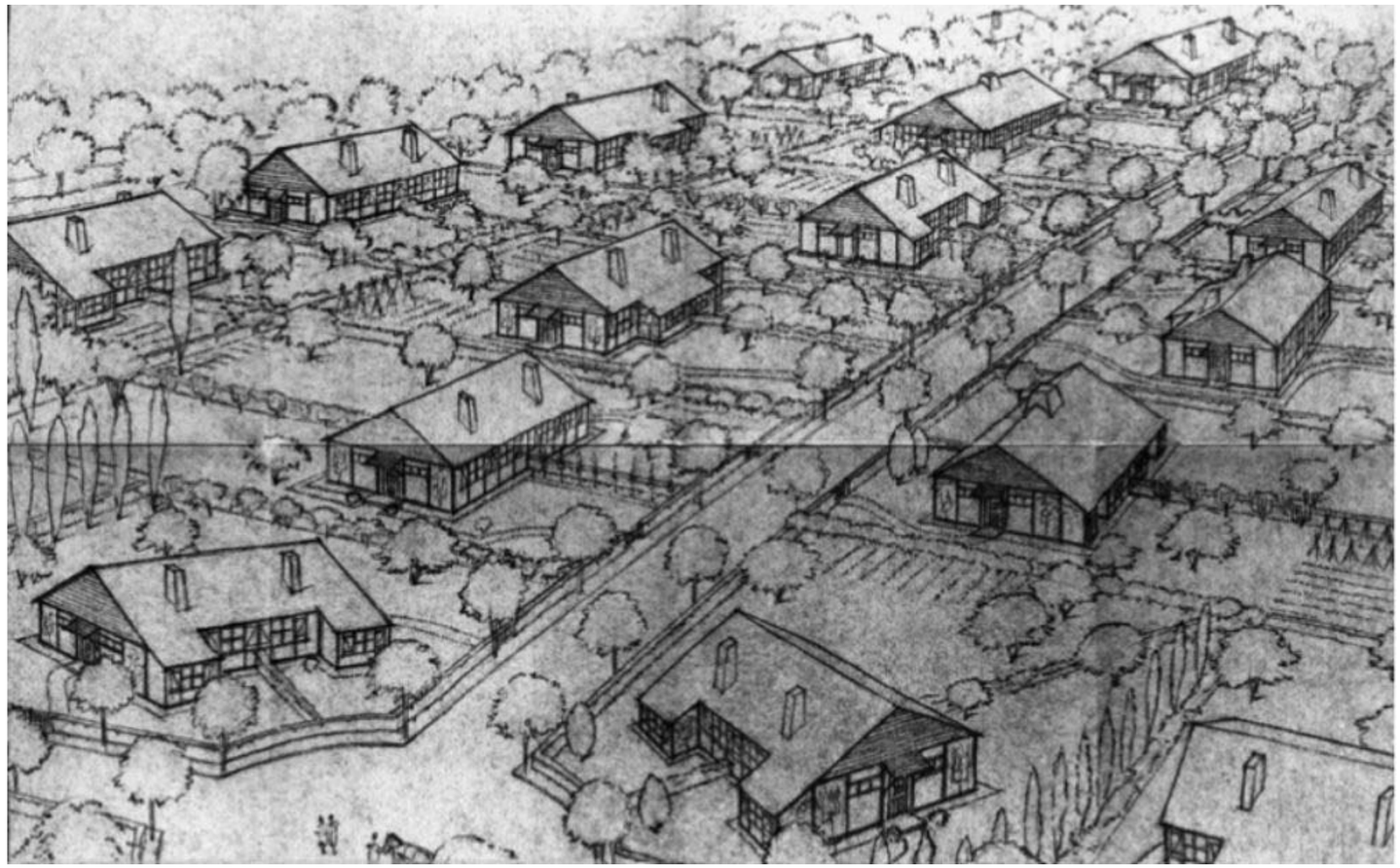
Waterschei

The Suburb of Waterchei, located in the periphery of Genk is a perfect example of Company Town. The wasteland of the former site act as a transition from city to forest.



Waterschei

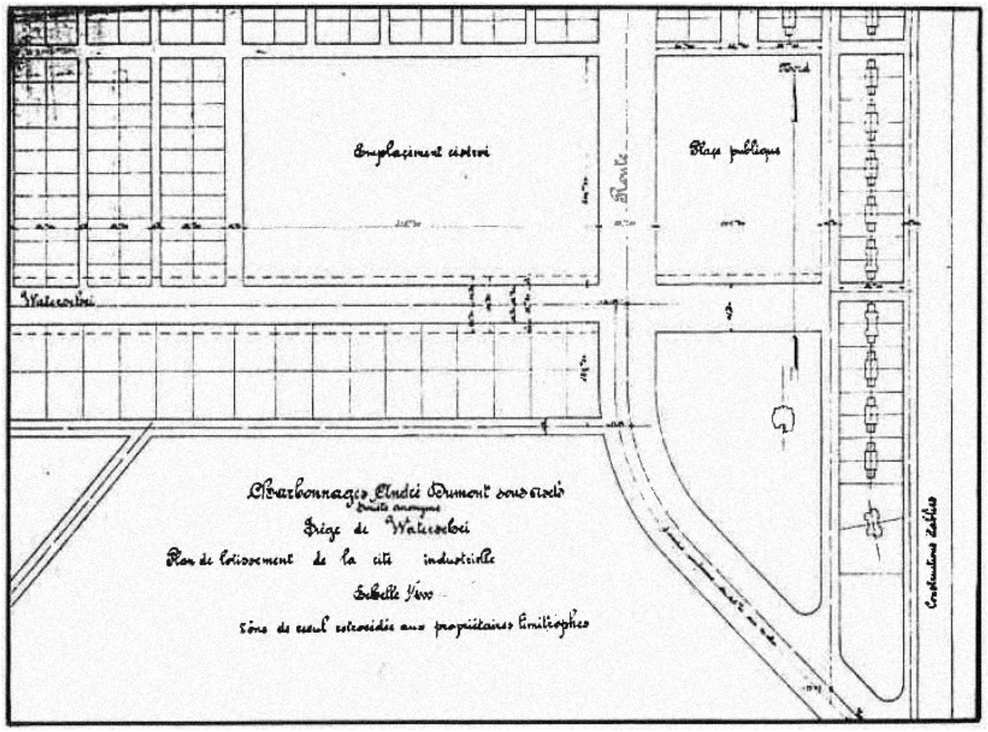
The settlement was constructed, as an imposition of coal avenues and workers dwellings over the natural landscape of the region.



A collection of workers utopias.

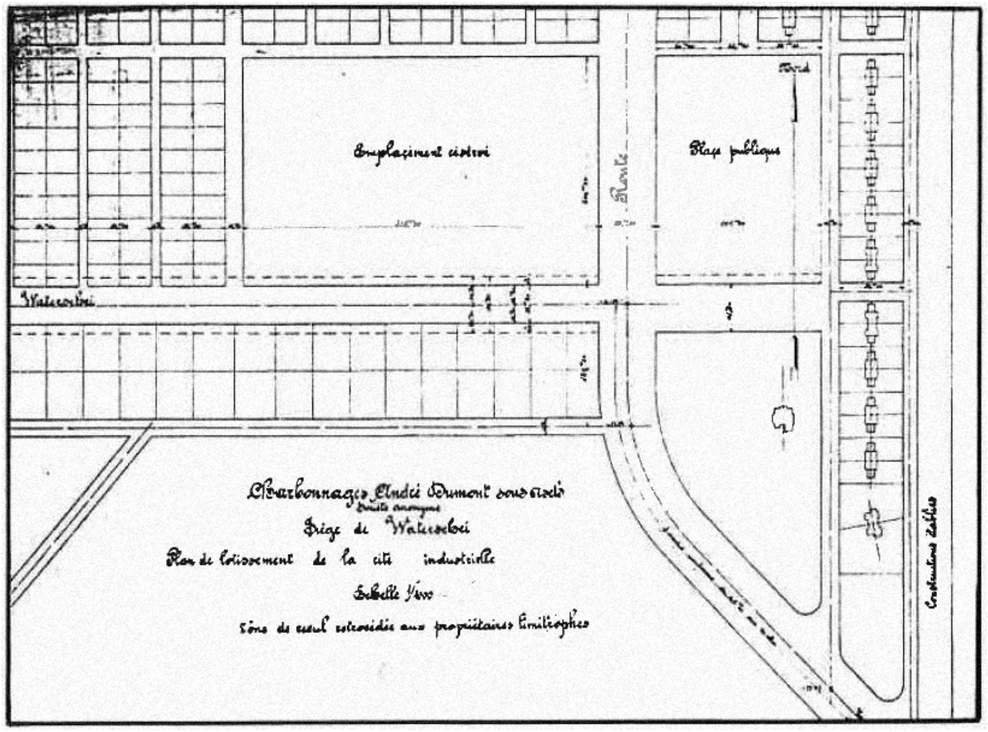
How is the physical structure of a Company Town informed by the tradition of worker's utopias?

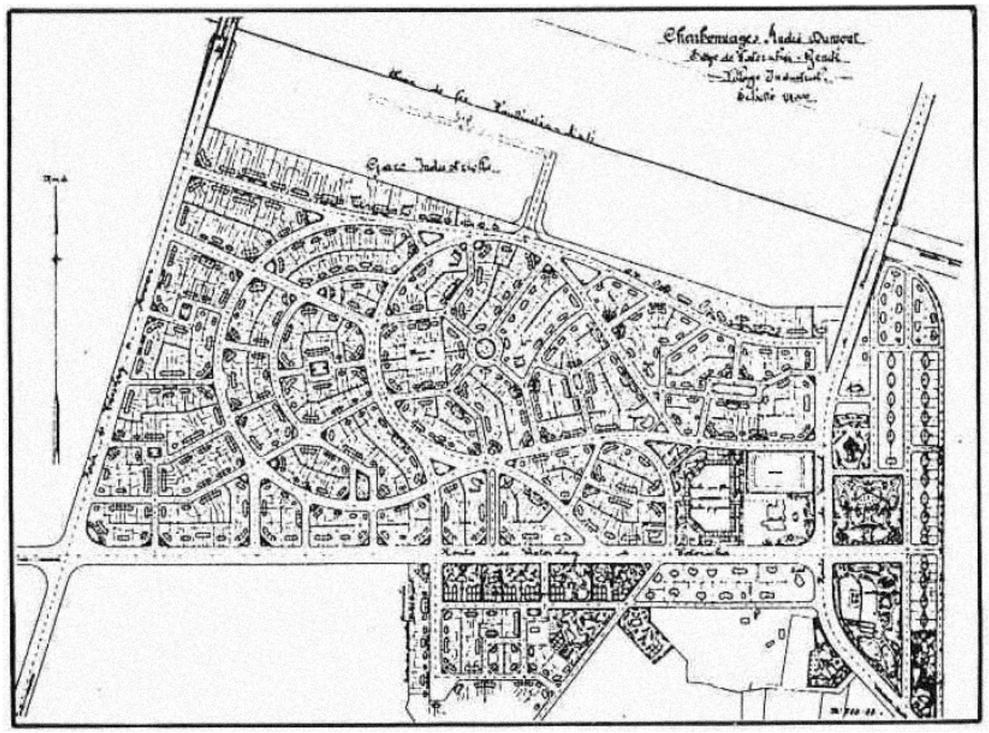
How a utopian and perfected social condition is here reflected in a rigid organization of life?



geometric grid

Waterschei was initially conceived as infinitely expandable grid, direct representation of an exploitative mentality.





garden city

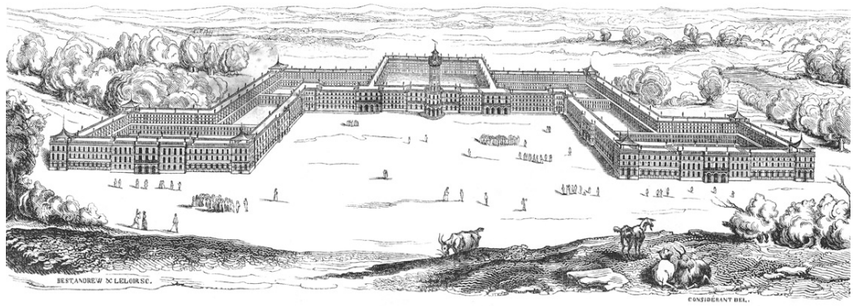
The plan that was realized, reflect the utopia of the Garden city, based on the idea that that workers could find steady employment surrounded by the healthy, open landscape of the countryside.

an efficient layout

Behind a surface of attention given towards green and liveable space, lie an extremely efficient layout.

picturesque

Urban naturalism and the picturesque tended to negate the dichotomy between urban reality and the reality of the countryside.

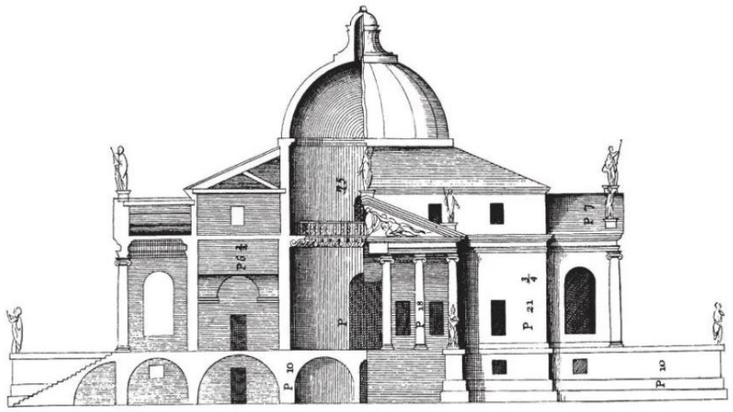


social palace

In public buildings a renewed idea of society is celebrated through arcadian communal interiors. Here urban and rural features coexist in a plan that reflect control over the surrounding territory.

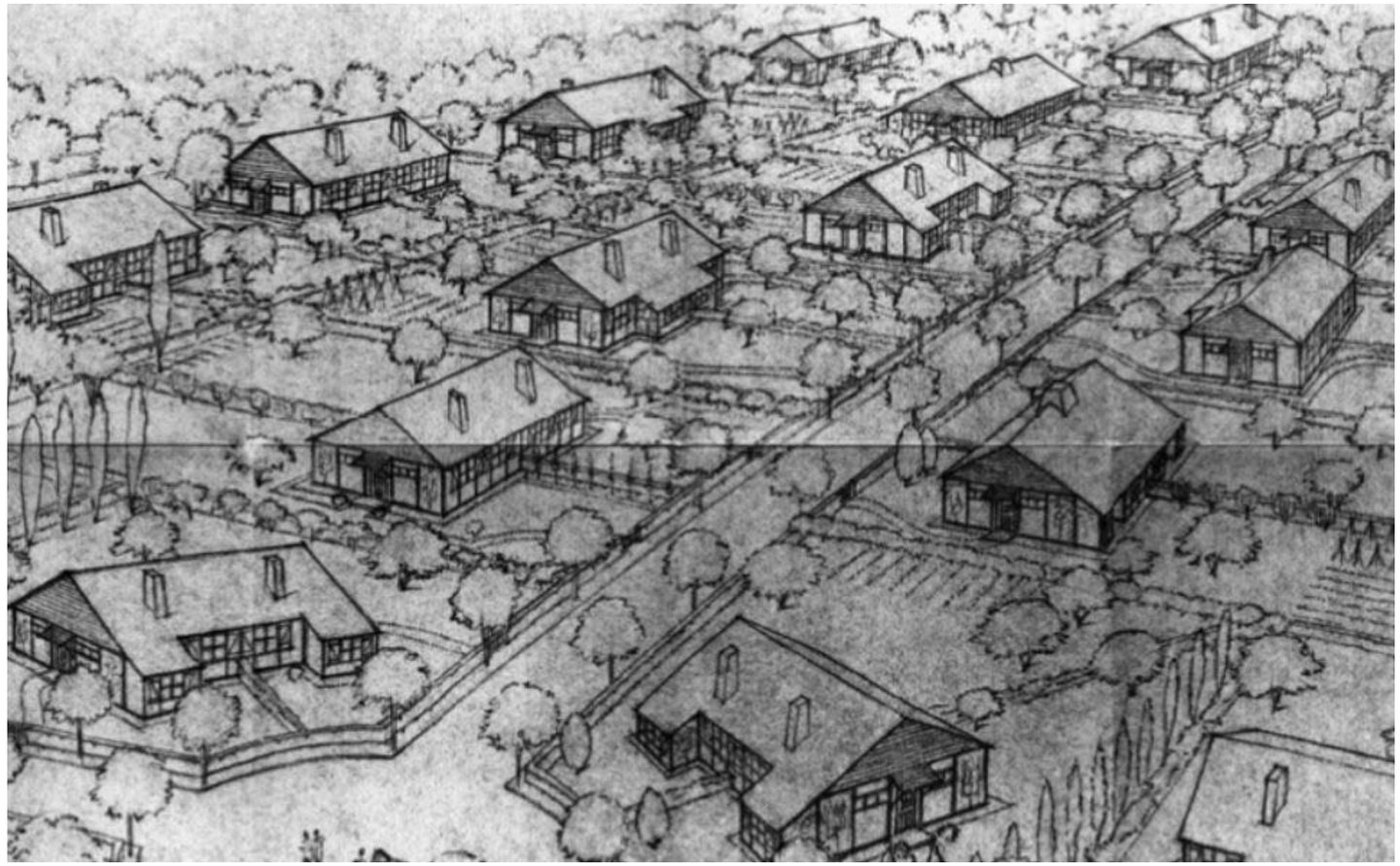
country house

Each single small universe is forced to achieve all the elements for its individualistic good life. Reflecting a mentality where domesticity is considered as a way of escaping from the everyday reality of work and public life.



villa suburbana

The private villas of Engineers express a celebration of the surrounding productive territory. The architecture express control and rationalization of the landscape.



How to challenge the notion of beginning that informed the Company Town?

How to propose an alternative to the idealization of society which is embedded in modern planning?

practical needs

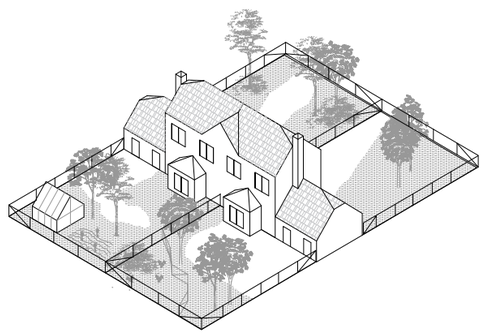
The project is developed as a critique of the perfected state of consciousness described by the modern utopian aspirations. In this sense the aim is that of reclaiming public space for people with rather common, everyday life needs.

practical needs

Many portions of the city fabric host overgrown gardens, manifesting a slow process of abandonment and the increasing urban poverty.

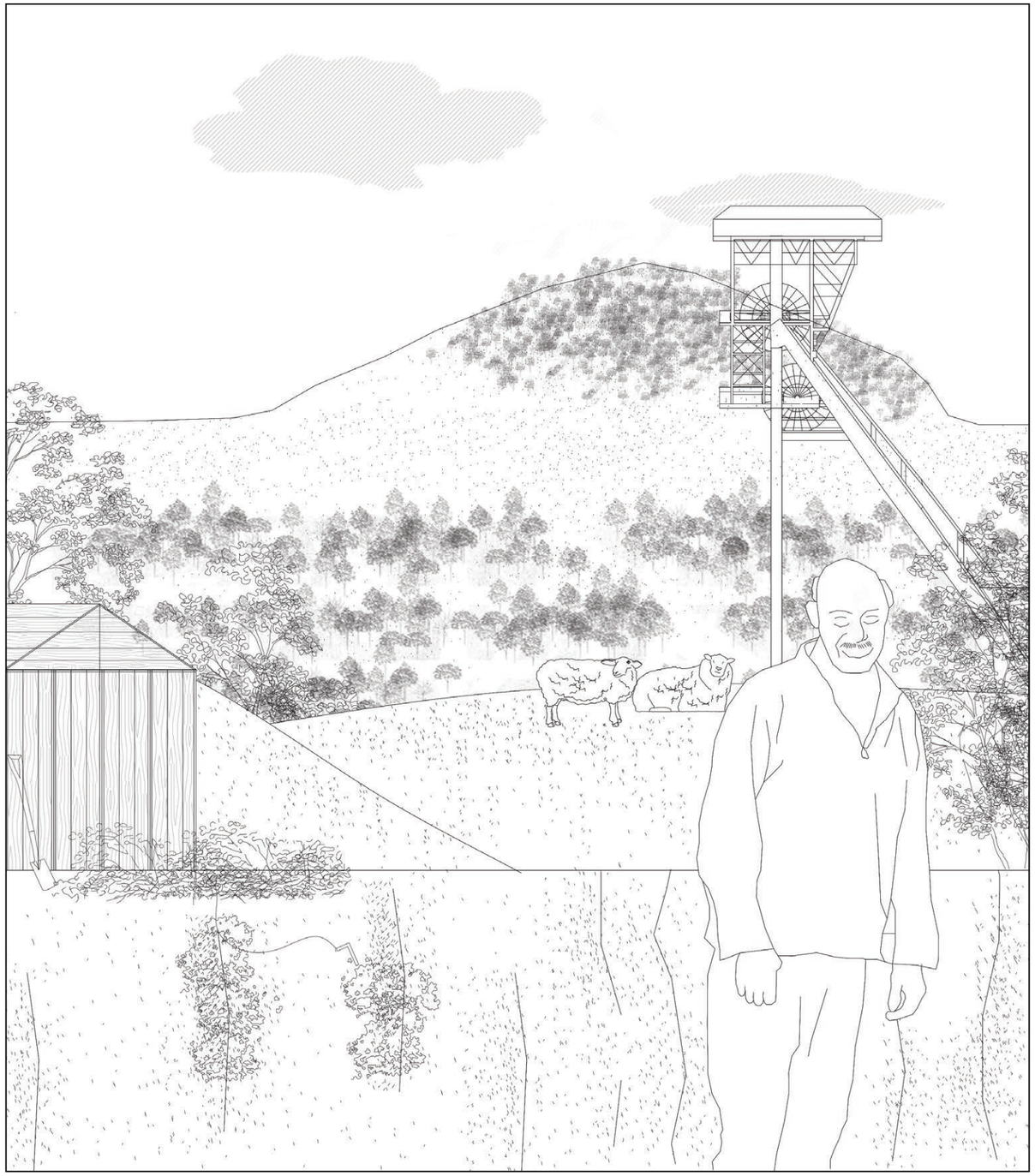
life within private gardens

Communal life happens almost exclusively within the fences that surrounds private gardens. This describes a situation where civic functions are almost totally absent from the town.



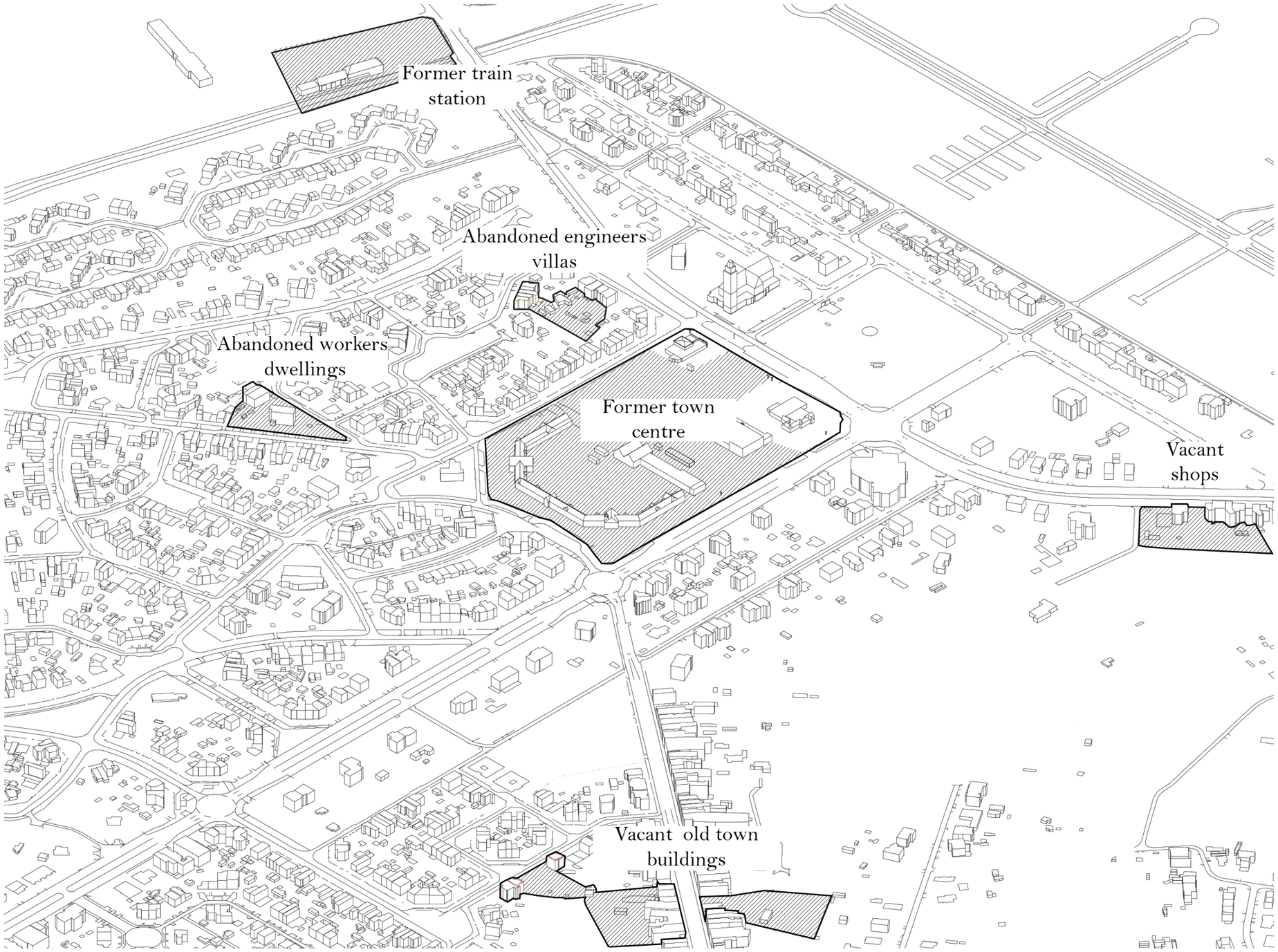
care of the domestic sphere

The domestic space is often expanded with additions and transformations that reveal the sense of practicality that characterize the community.



inhabitants

The remaining local inhabitants still present a deep affection for the town. Behind its surface decay and abandonment, the feeling of belonging to the town's identity is still rooted in the community.



derelict plots

The current economic and demographic conditions are manifested by the quantity of derelict plots of land, sparsely distributed within the rational grid of the garden suburb.

derelict plots

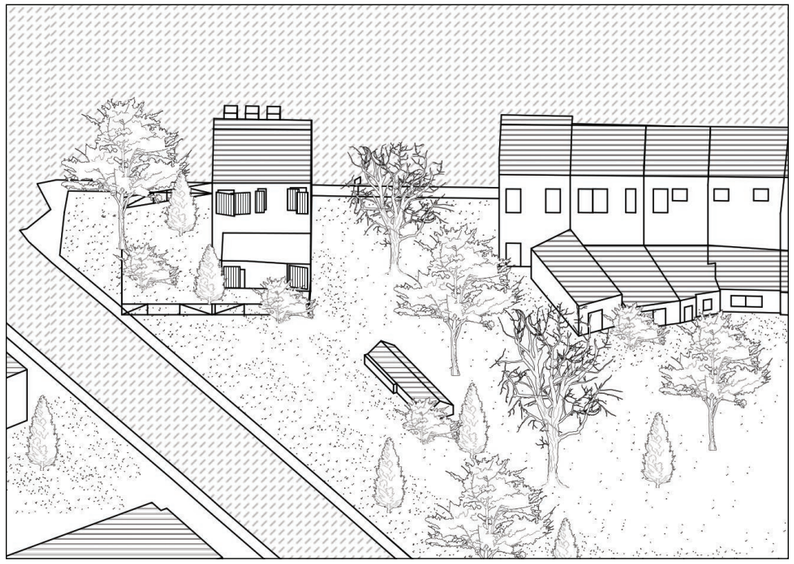
Derelict plots can be seen as preserved places of freedom where spontaneous vegetation is accepted and grows over fragments of forgotten structures.

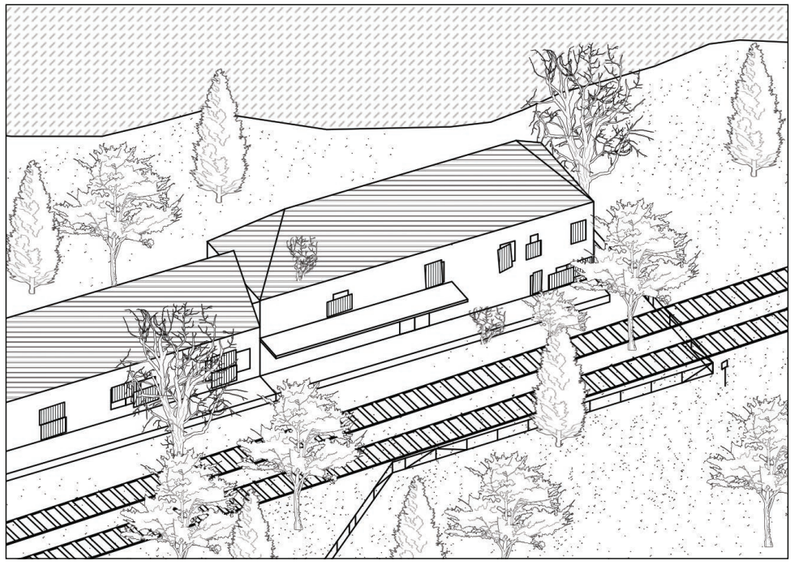
tabula rasa

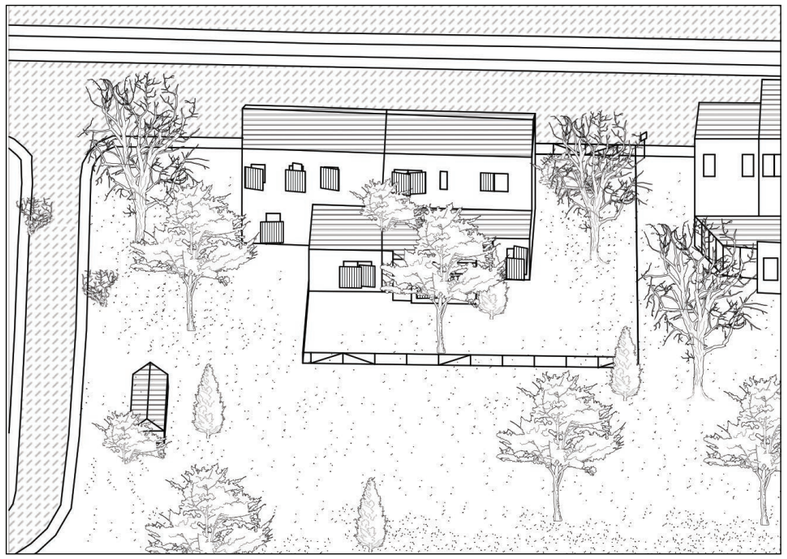
Urban development plans point at attracting new investments by cleaning and erasing the obsolescent portions of the town.

new housing

New lower dense housing estates are built to increase land value, often ignoring issues of identity and the existing social infrastructure.

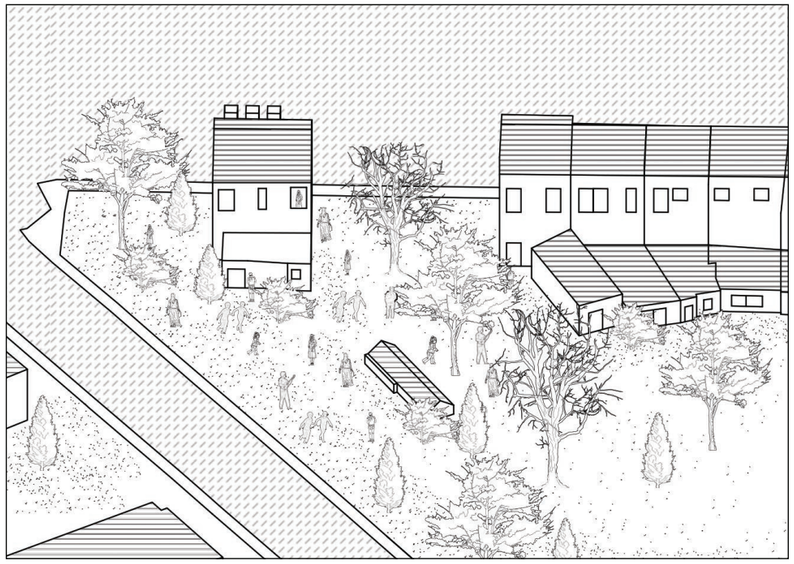


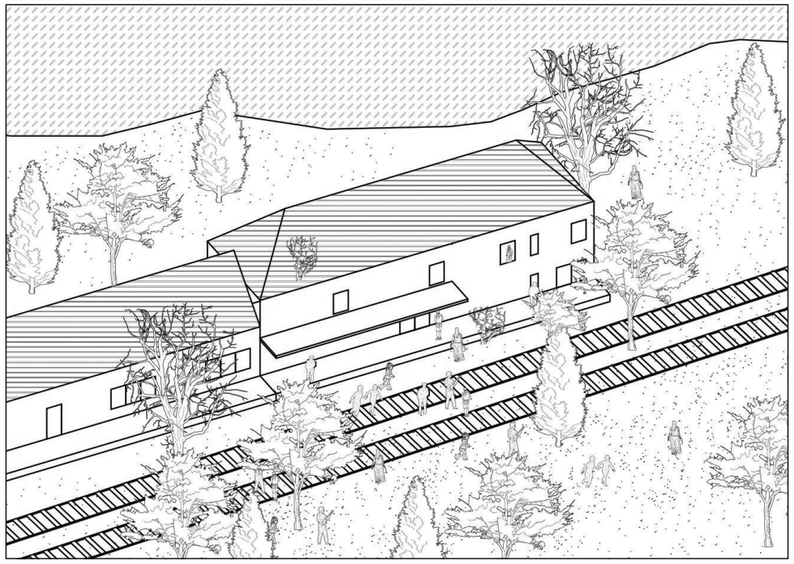


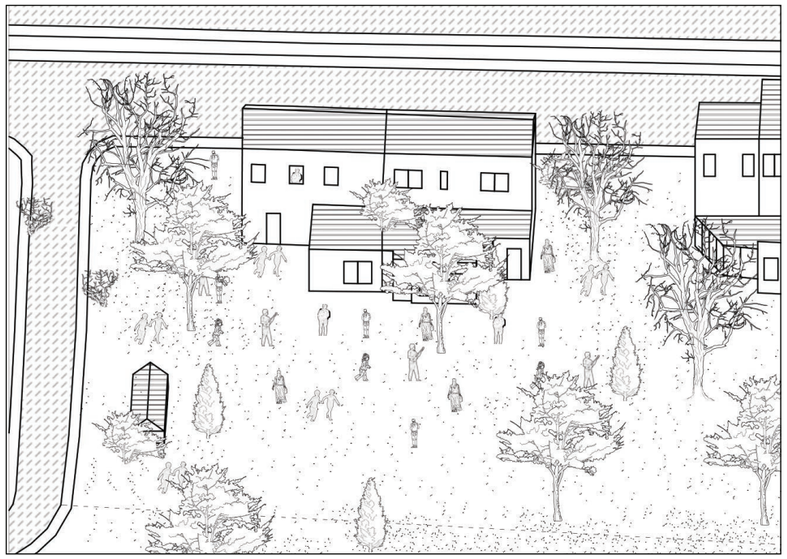


Accepting decay

How can the decay of forgotten parts of the town, as an alternative to demolitions, become a potential for the reconstruction of its communal life?





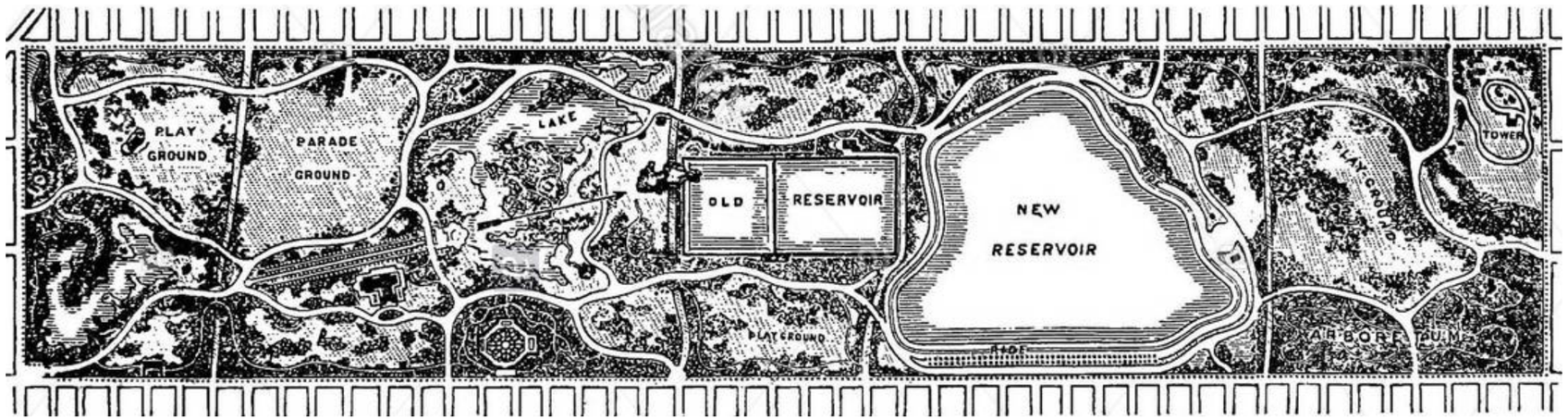


An operative method

Nurturing the inhabitants practical knowledge, to allow the incremental restoration of abandoned portion of the city as public space.

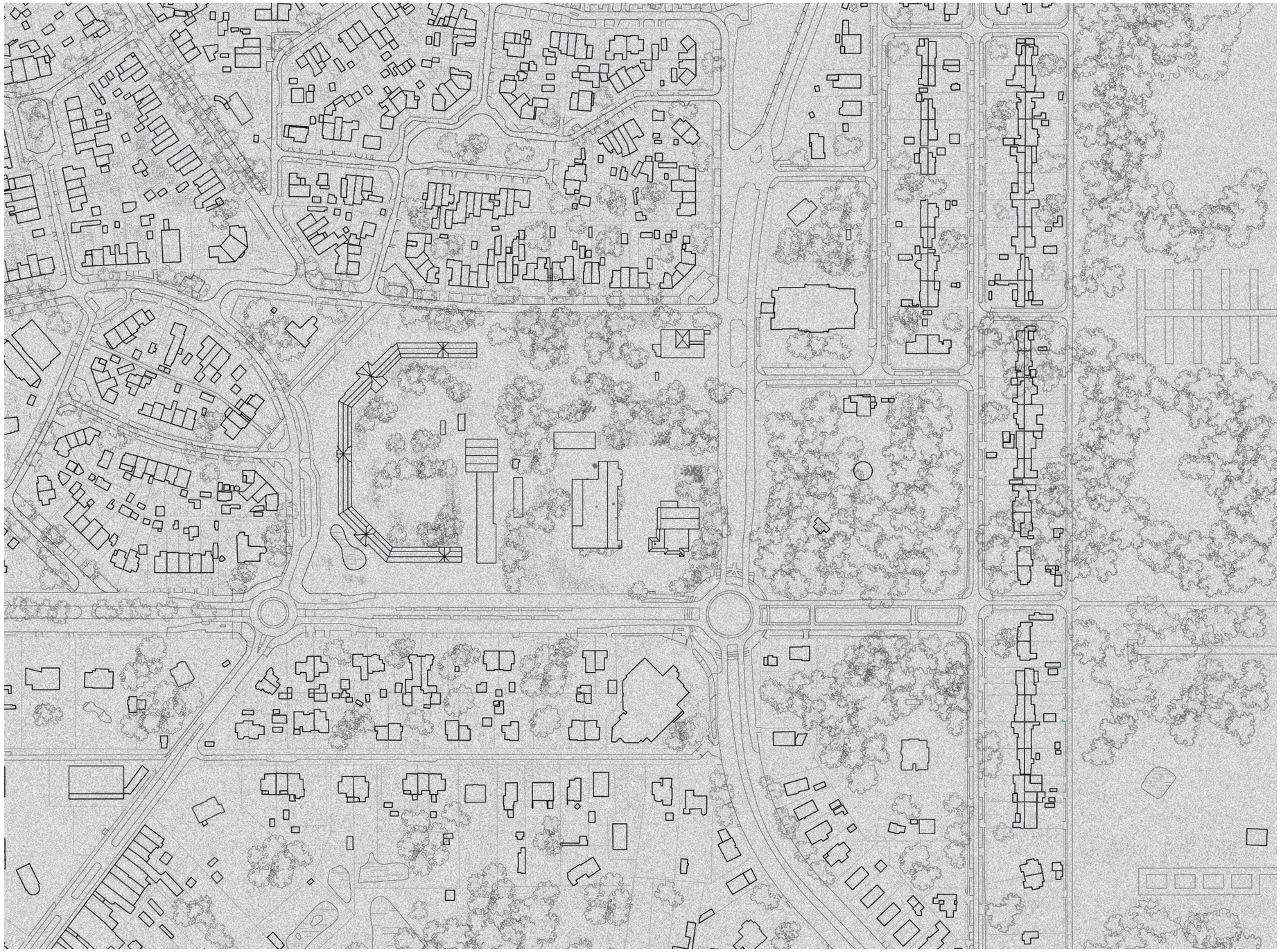
framework of reclaimed spaces

The terrains can be purchased by local associations and volunteers and occupied with a wide system of public spaces for the testing sustainable gardening methods and other communal activities.



Collective infrastructure

The previously un-accessible natural landscape of these portions of city, assume the value of a collective infrastructure.

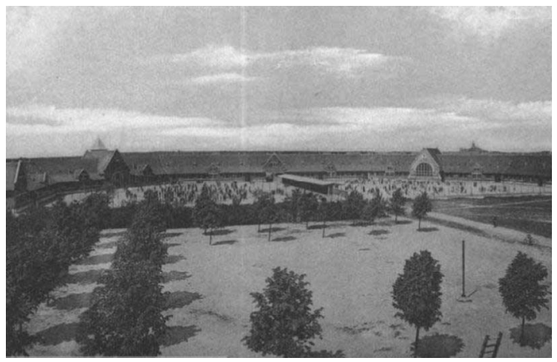


between town and forest

The former centre of the Town, act as the first stage of a process that will eventually expand to the other abandoned sites. It is the reconstruction of a recognized centrality.

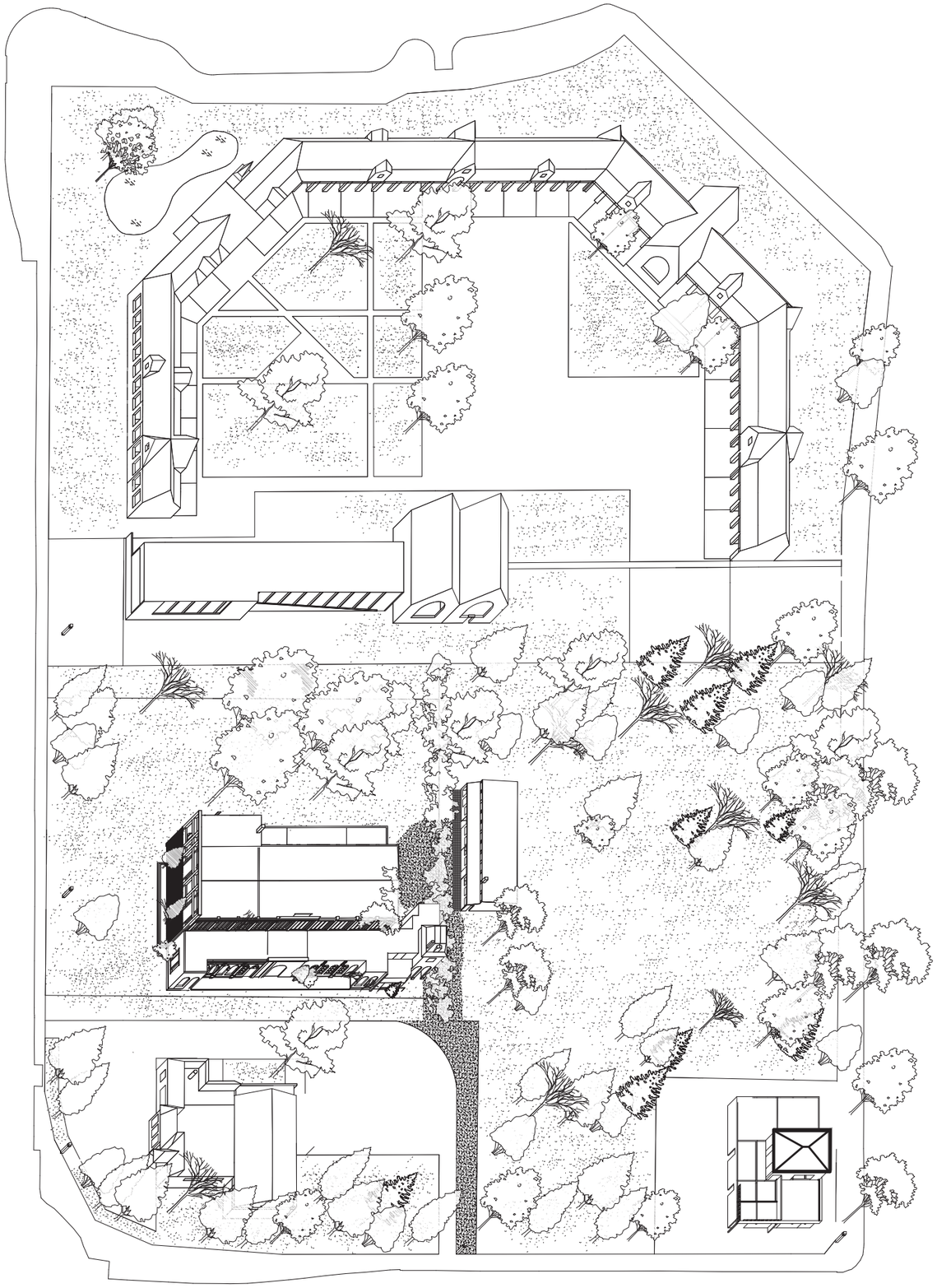
wasteland

The site is connected to the forest that is growing over the former estraction site. A process that will eventually enter the town boundaries.

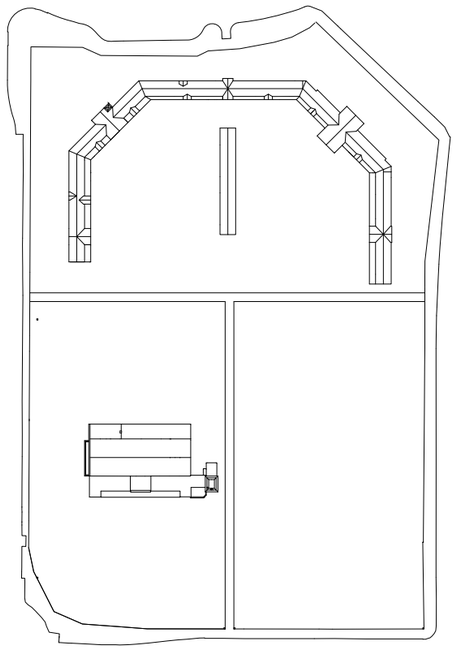


utopian setting

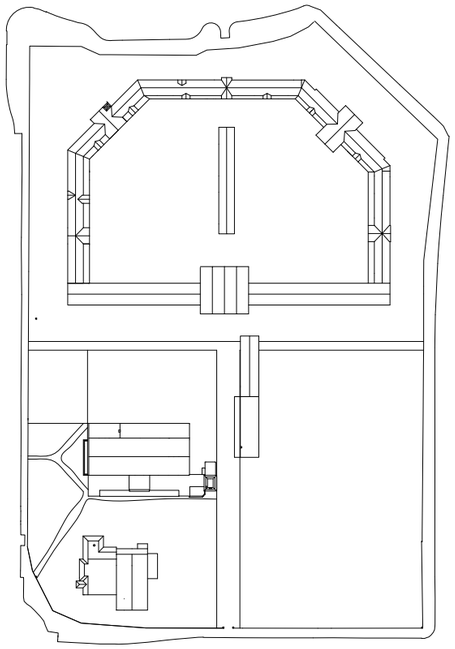
Recalling a utopian setting, the plan celebrates the imposition of a rational control over the landscape. This part of the town was hosting important care facilities for the town, being the center of the public life of the towns.



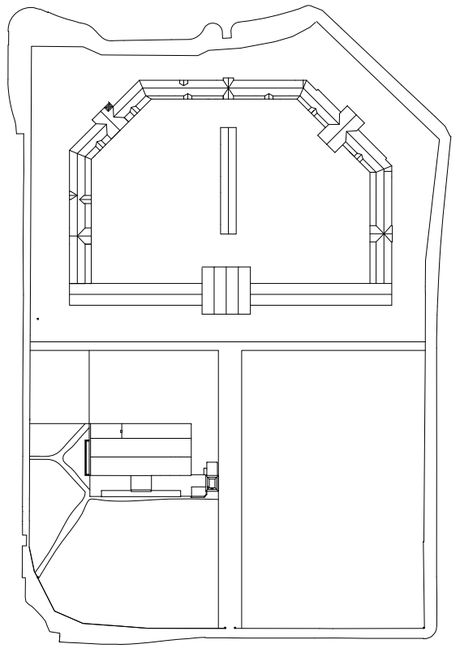
1939



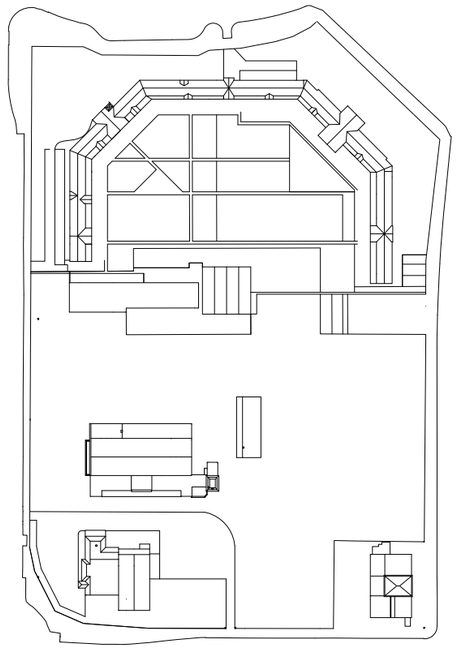
1981-89



1969



2017



new constructions

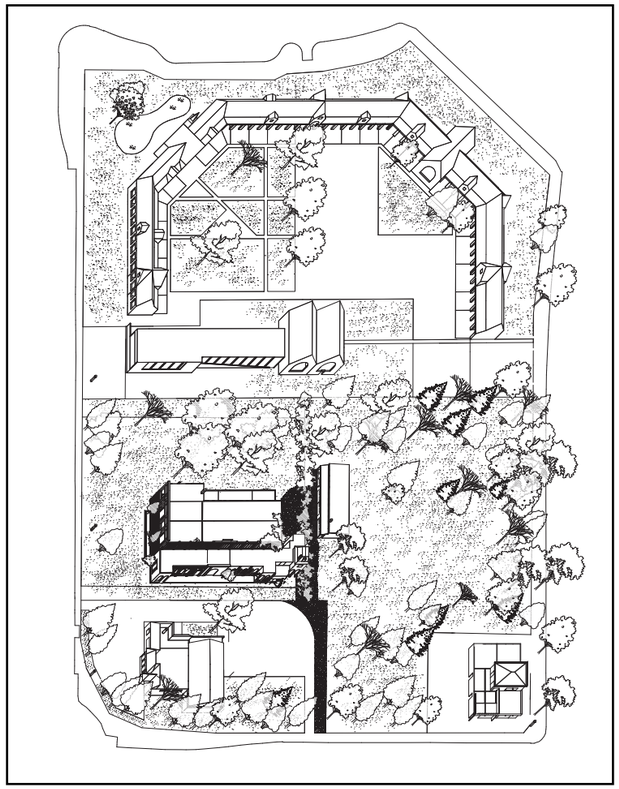
The simmetry and unity of the original plan was gradually lost with the additions and demolitions that happened on the site.

Inside the plot, all the processes that are shaping contemporary garden suburbs are represented. The coexistence of abandoned with renewed, rationalized with unknown, stranger with the native.

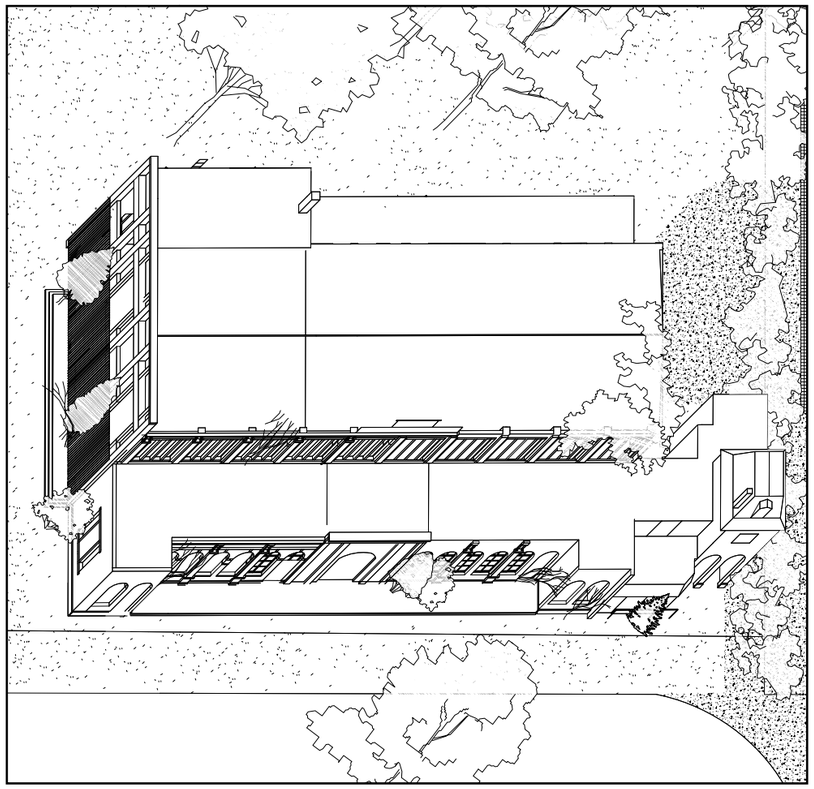
Entropy

The notion of entropy is embedded in the process of restoration of the site.

The restoration of spaces happen next to the site's return to the natural state.



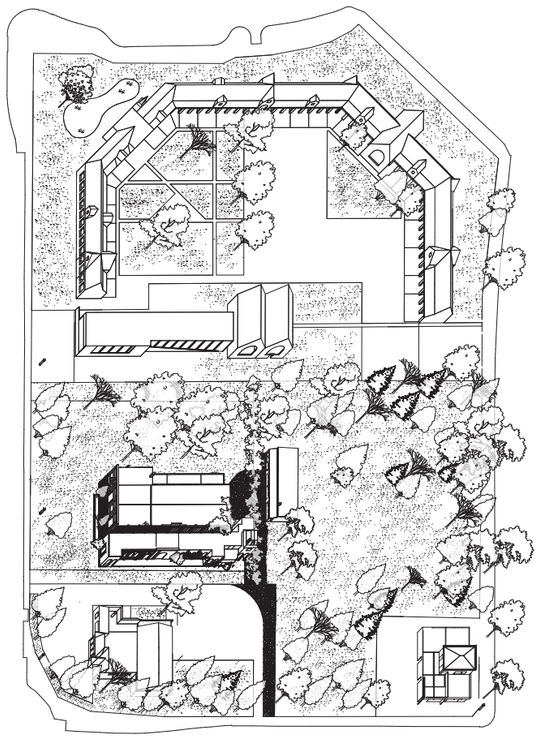
landscape



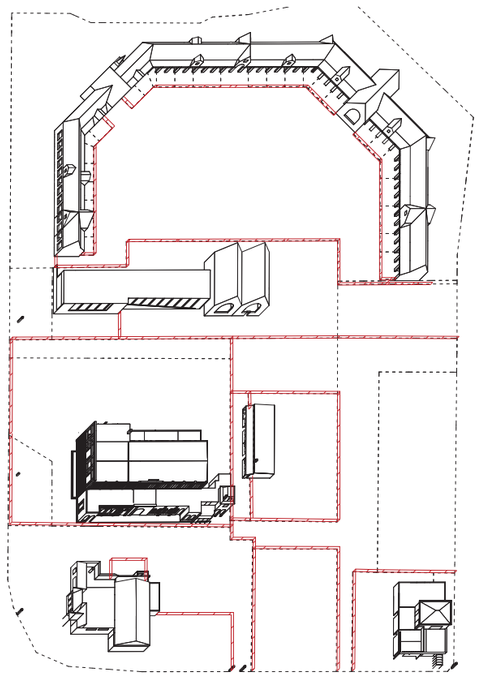
buildings

landscape

This model is a working tool to discuss the first passages involved on the scale of the landscape. The transformations here proposed, can be negotiated together with the citizens. The steps to transform and reclaim, needs to be adapted to the specificity of the site and the needs of the community.



The abandoned open spaces today appear as hermetic and separated entities. They are disclosed to public and communal uses, manipulating the internal fragmentation.



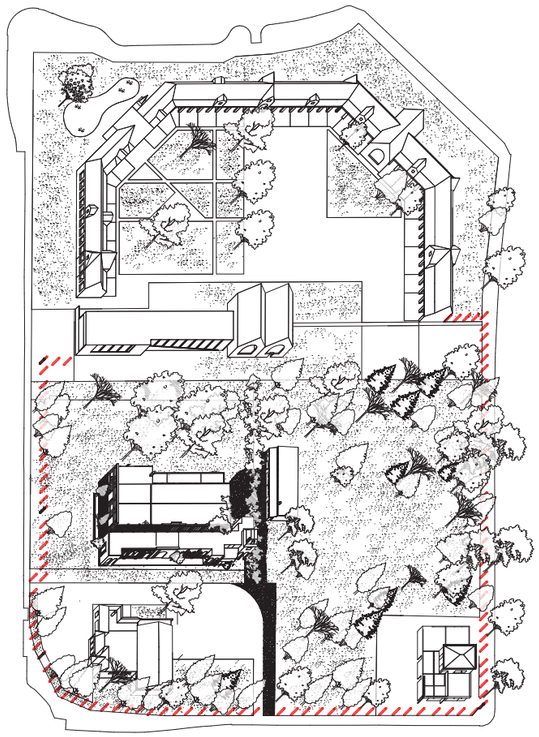
fences removal

Fences, determining the site current fragmentation are removed.

Enclosed garden

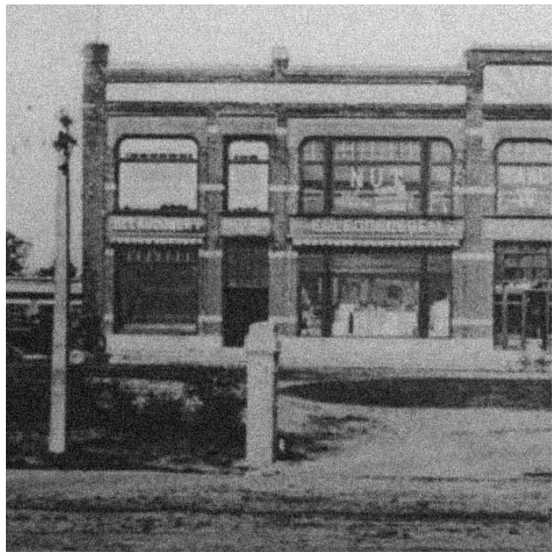
The reclaimed site has the features of an enclosed garden.

It is a collection of invasive and indigenous natural elements from the surrounding territory.



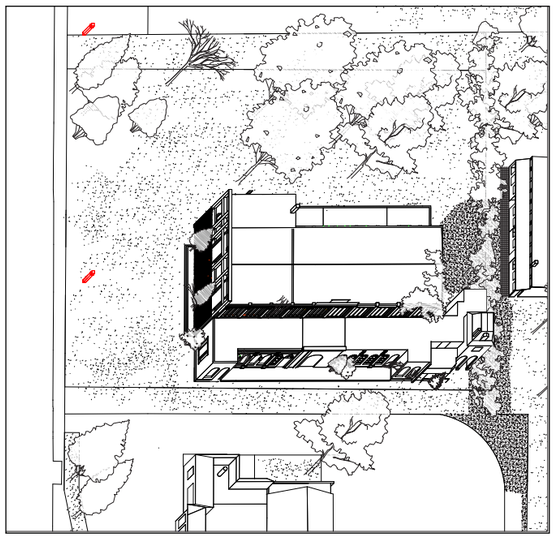
threshold

A structure re-define the site's borders into a threshold, making it readable as a coherent whole. The border is constructed with the removal of flooring tiles and bricks from the paved areas.



latent identity

The structure is developed around architectural elements that still reveal a latent identity. In the town center the re-construction of the threshold take place around concrete white gateposts once defining gates and entrances.

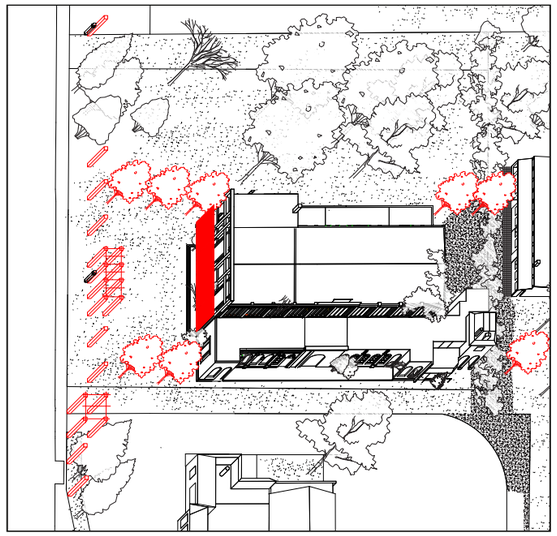


The concrete element is the element around which to restore the image of the site within the accumulation of historical traces. The developing of a common language involving the users in an act of repainting and care.

Passages

The entrance is mediated by the introduction of passages.

A smooth transition that disclose the inner nature of the site.



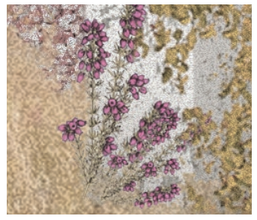
structure

The columns are built by stacking reclaimed flooring tiles and bricks. New plants are introduced to create a sequence of gardens.

European nightjar
(Caprimulgus europaeus)

Chinese wisteria
(Wisteria Sinensis)

Reflexed Stonecrop
(Sedum reflexum)

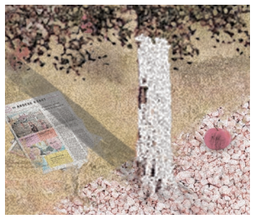


Bell heather
(Erica cinerea)

site threshold

The threshold cast a shadow on the gardeners activities. Climbing plants and wildflowers start to appropriate them while, insects and small birds proliferate.

Hedgehog
(Erinaceinae)



Apple tree
(Malus domestica)

Old World swallowtail
(Papilio machaon)

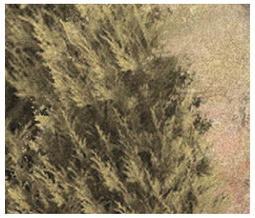
Bog-myrtle
(Myrica gale)

garden threshold

Transitions between gardens happens around fruit trees with white painted trunks offering shadow for rest. The soil fertility of the gardens is here gradually re-established with low vegetation and flowers.

European marten
(Martes martes)

Dog Rose
(Rosa Canina)



Juniper tree
(Juniperus communis)

Red fox
(Vulpes vulpes)

low garden

Gradually, the garden is reclaimed by taller, more resistant bushes. Small size animals begin to populate the area, while inhabitants can enjoy solitary walks.

Rowan
(Sorbus aucuparia)

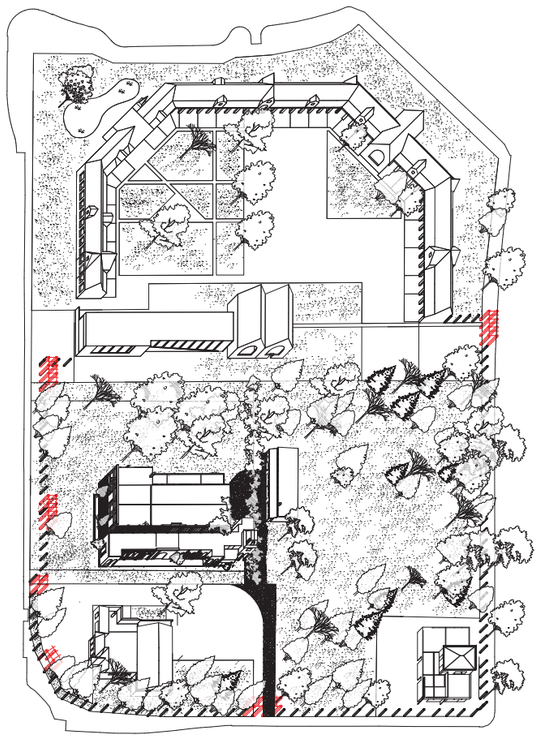
Roe deer
(Capreolus capreolus)

English Walnut
(Juglans Regia)

European red pine
(Pinus resinosa)

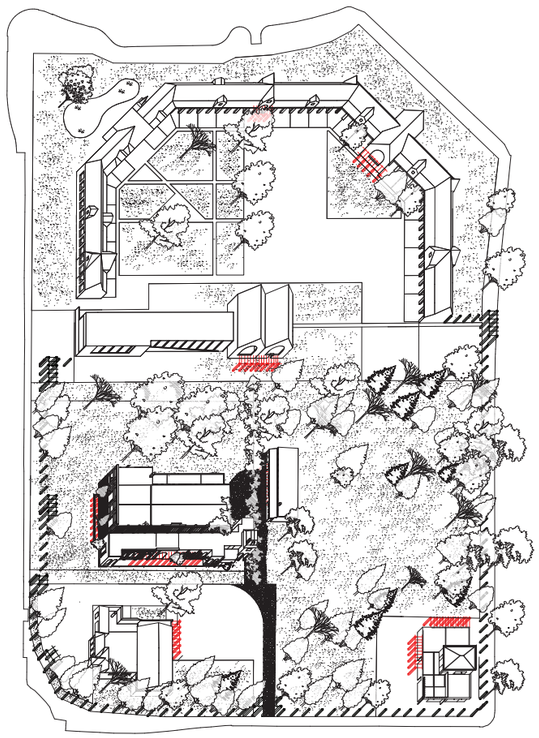
forest

Finally, the inner part of the garden is populated by tall trees and dense vegetation. It is a space inhabited by wils animals.



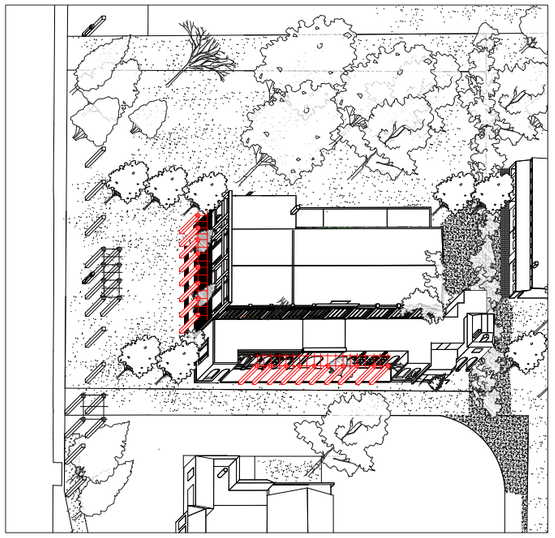
transitions

The open spaces begin to develop together, assuming the form of a sequence of gardens. However the buildings still appear as separated entities.



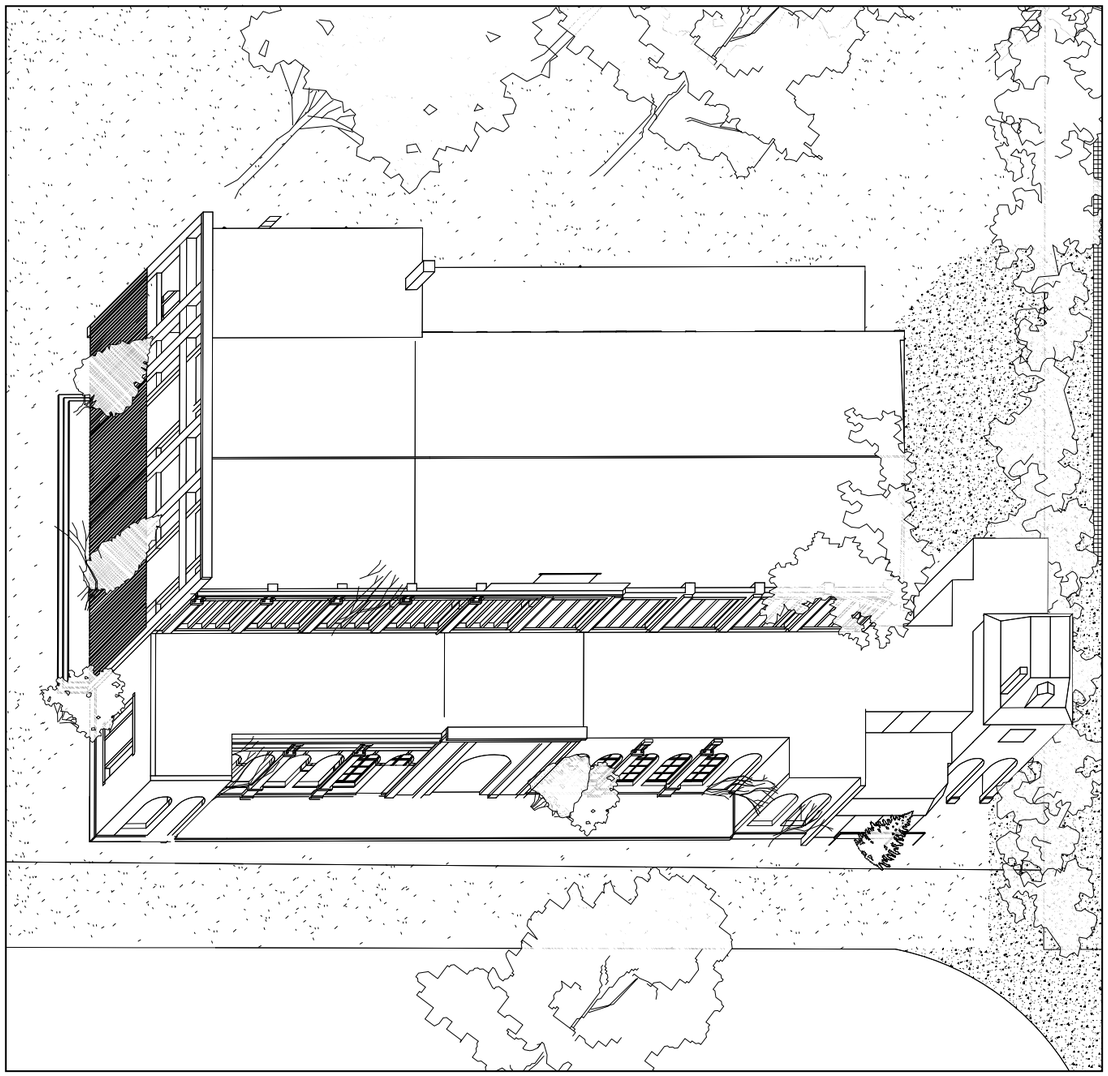
porticos

The structure is extended to the buildings in the form of porticos, redefining their entrances and reconnecting the parts within one precise language.



porticos

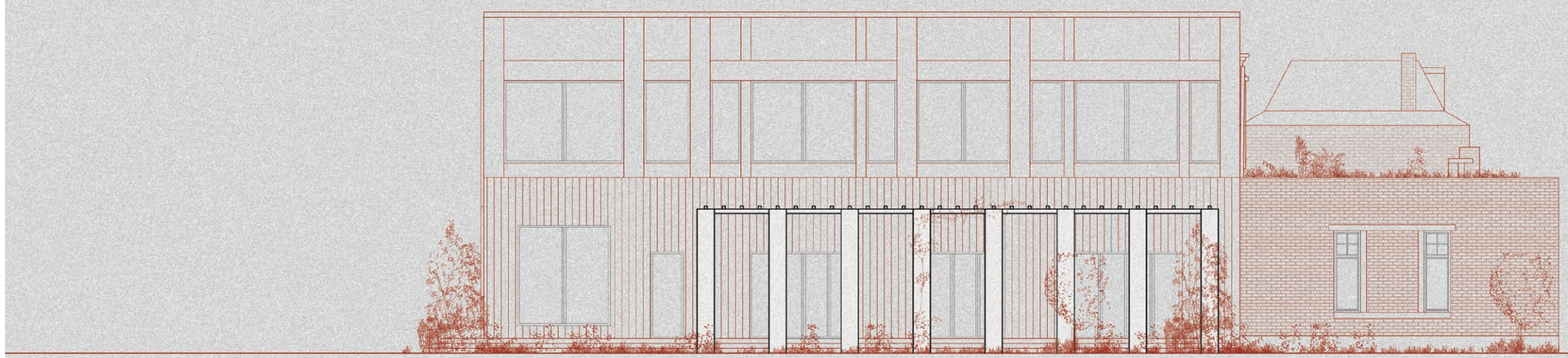
The portico opens up the abandoned building to the landscape. They echoes the verticality of the growing vegetation bridging natural and artificial elements.



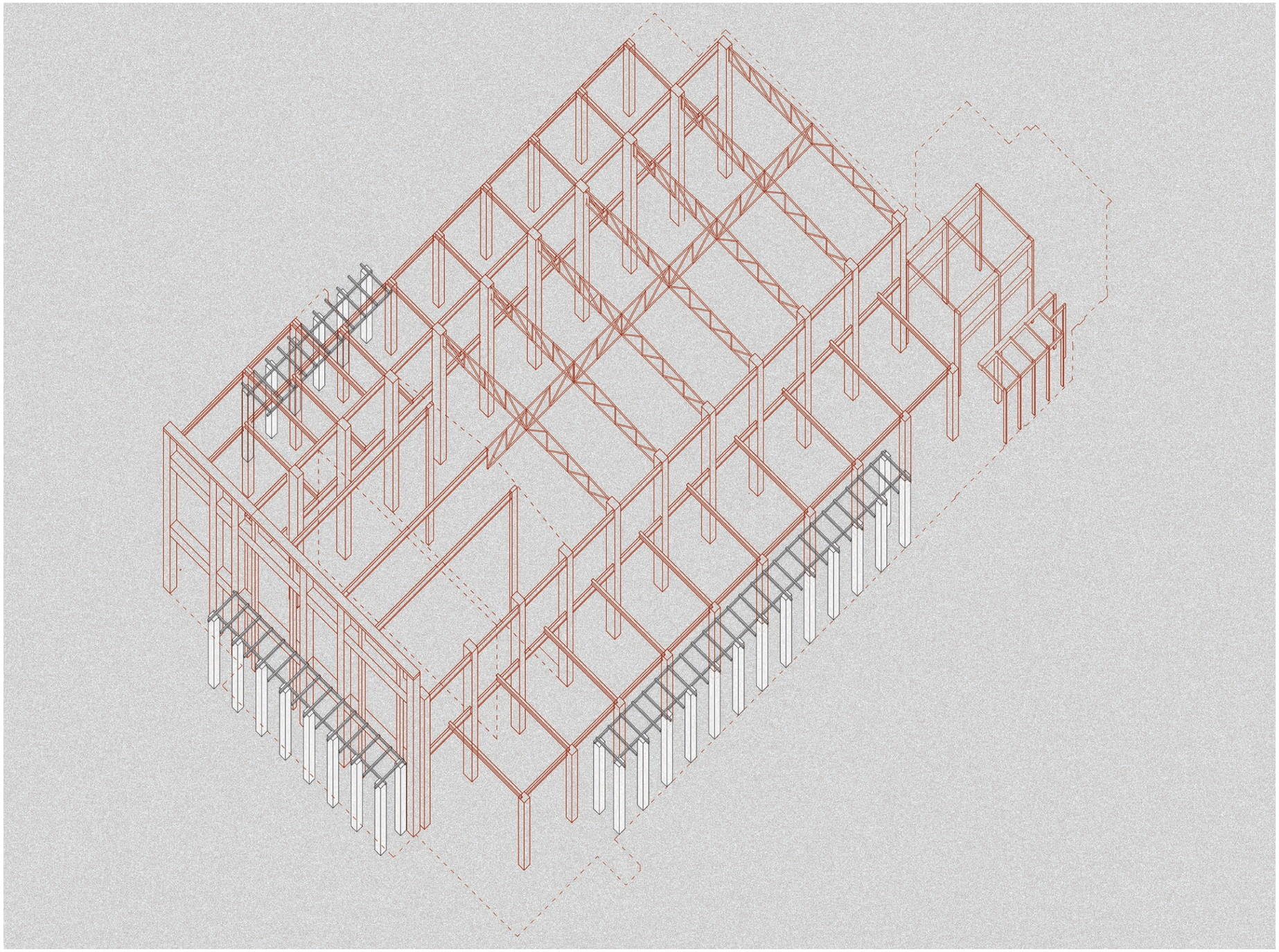
The building

The white porticos introduce the process to the building.

The manipulation of the structure's ruination allow to accomodate communal activities while allowing nature to grow.

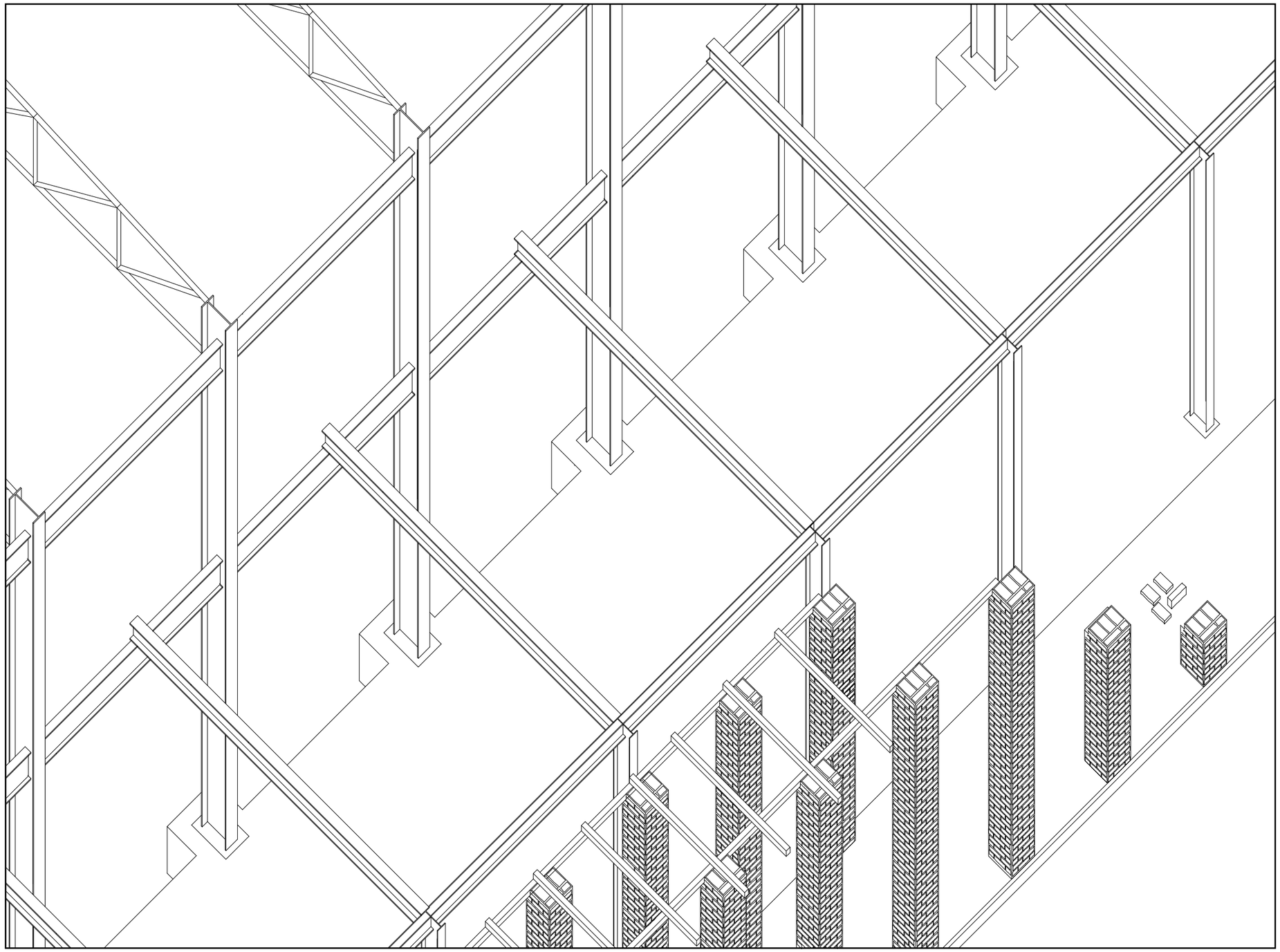


The white porticos re-establish entrances to the building. The structure communicates the transformation to the outside. The distance between the elements is a reiteration of the existing structural layout.



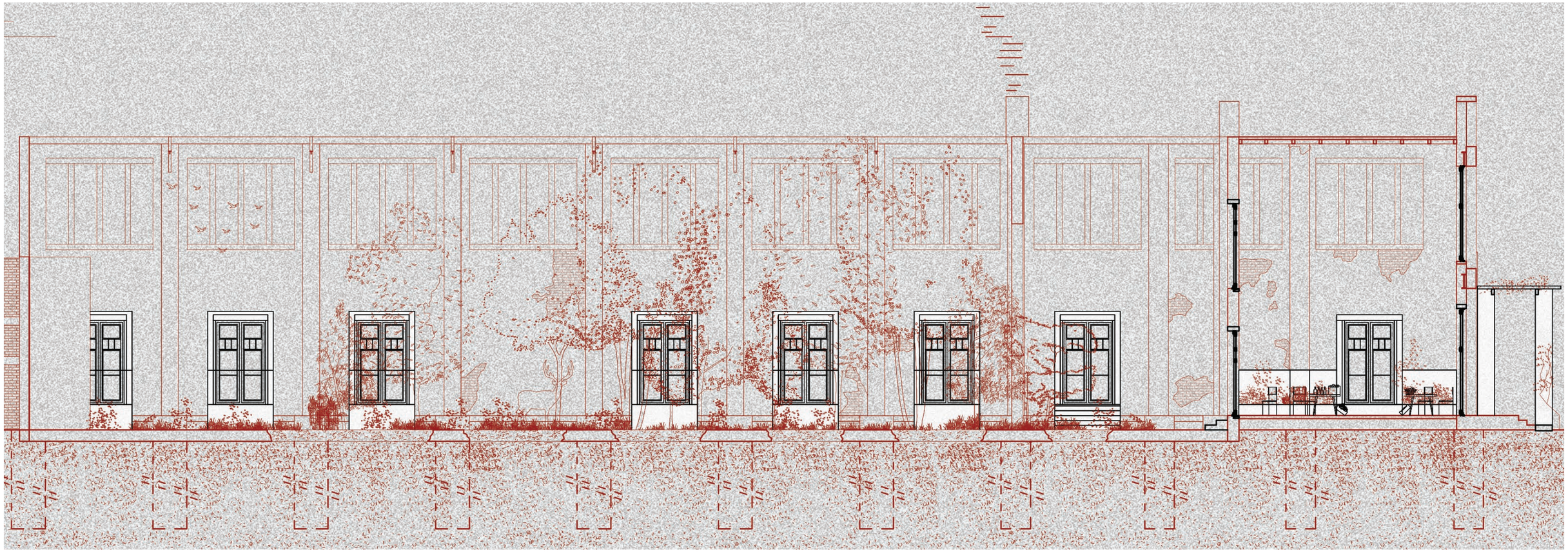
portico and existing structure

The existing columns divide the building in two sections: perimetral wings and a double height central space. The latter was the center of collective celebrations.



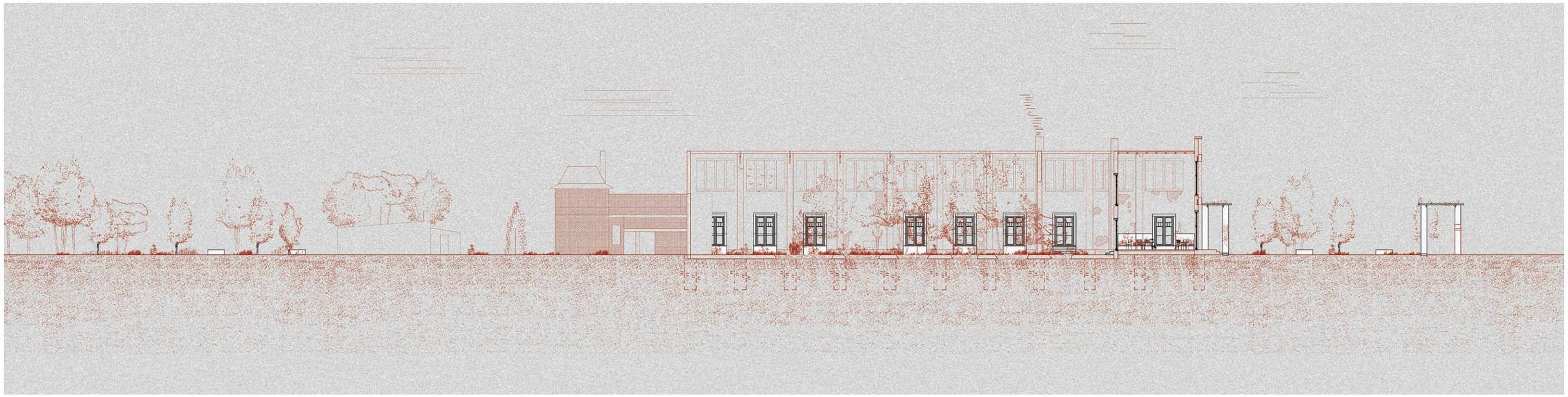
portico and existing structure

The original load bearing steel structure define the building as a generic industrial presence, despite its past cultural uses. The frame was covered with decorative bricks elements



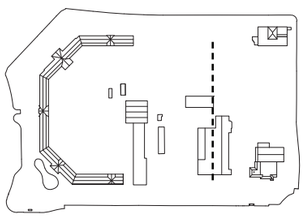
the forest enters the building

The central collective hall is kept as main collective presence. Here, the building is prepared for welcoming the surrounding nature.



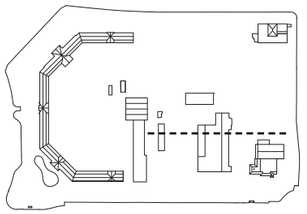
architecture/garden

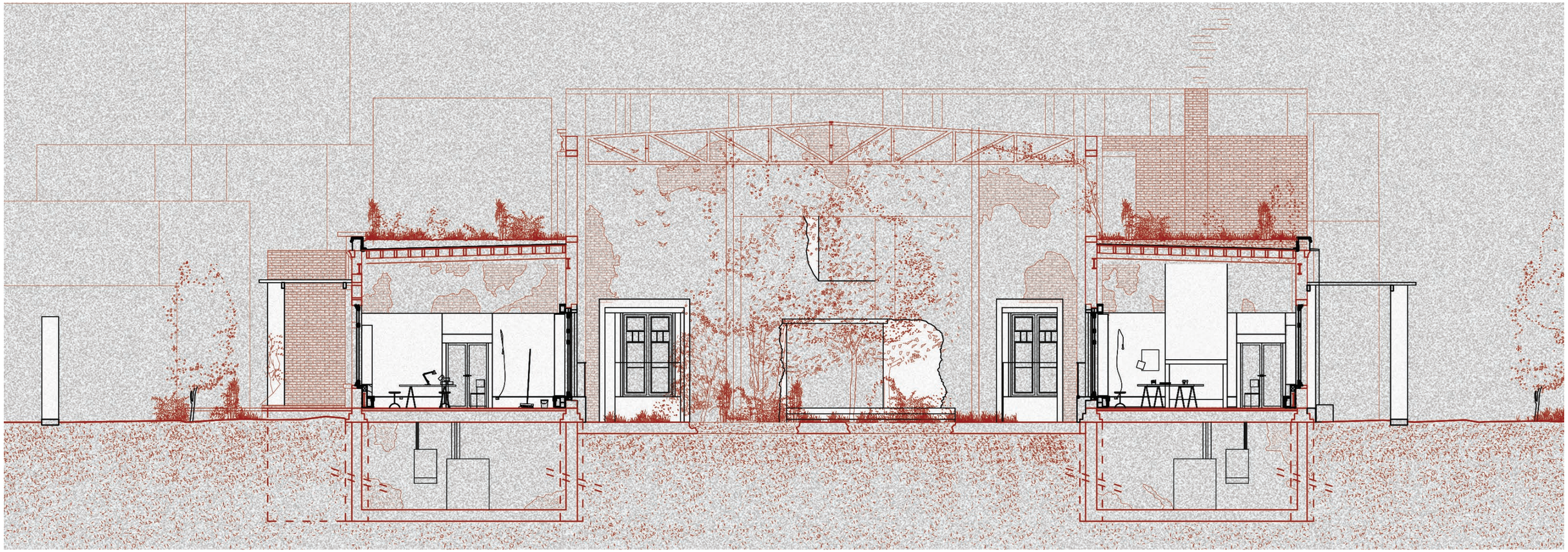
The building is integrated with the sequence of gardens. The distinction between architecture and garden is not anymore valid.



architecture/garden

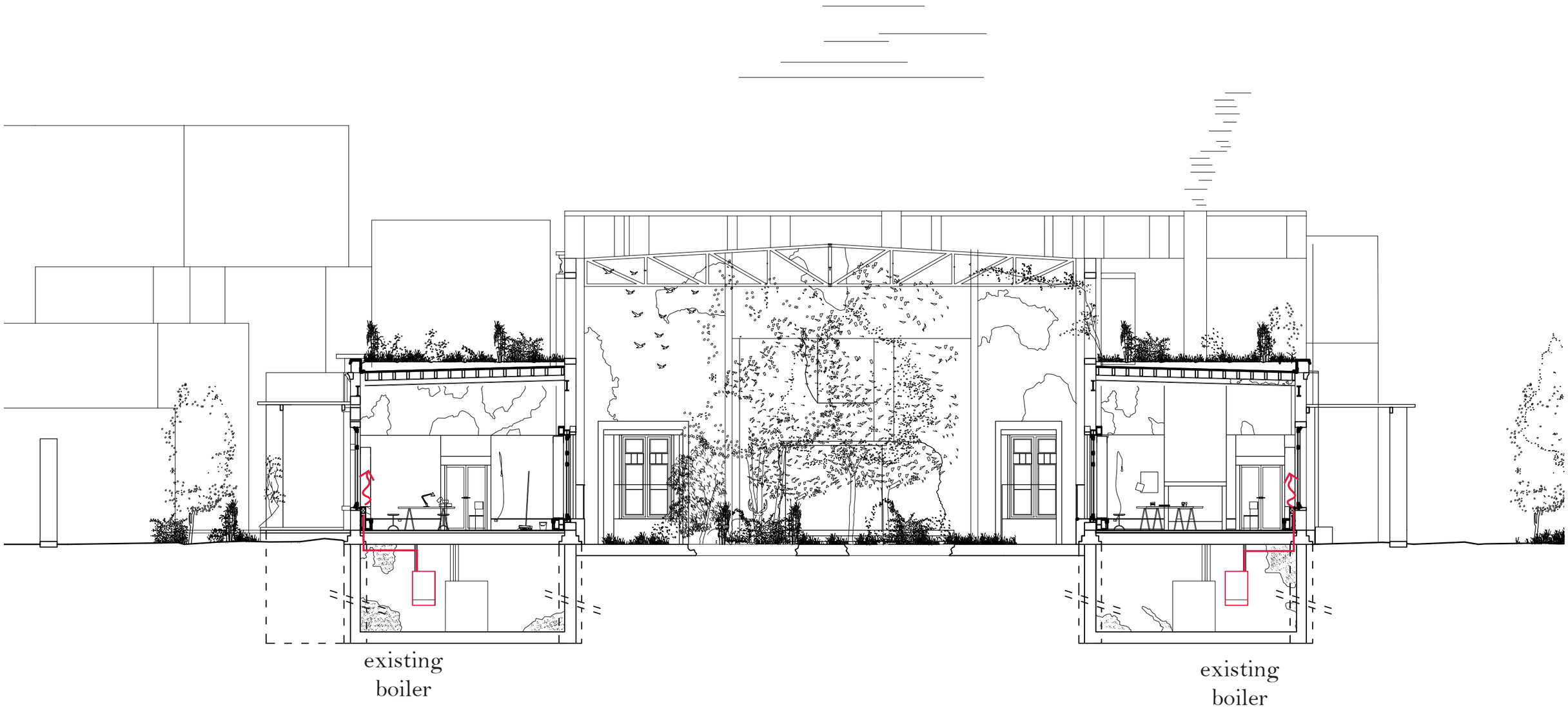
The continuity of the white elements introduce the building to the landscape eliminating the separation between exterior and interior.





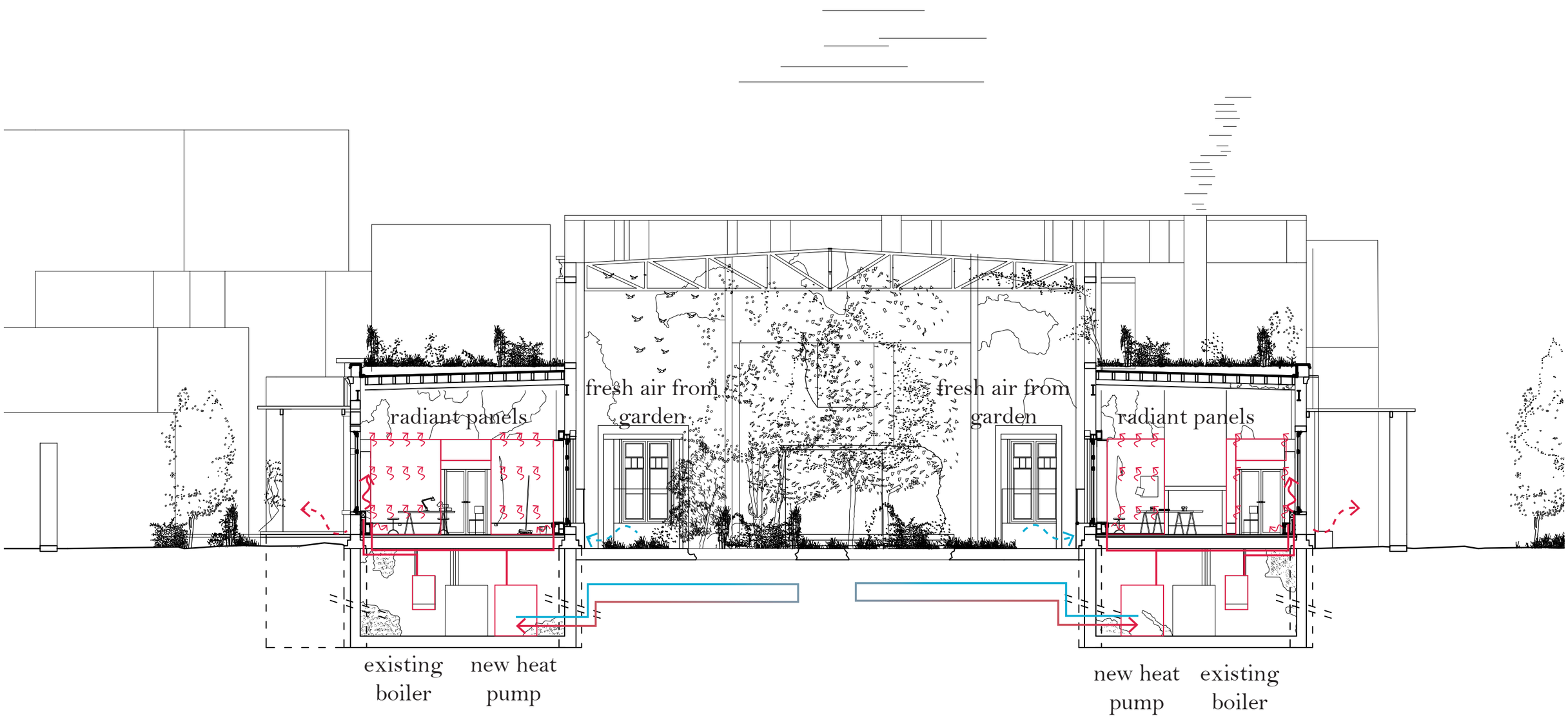
architecture/garden

The access to the garden is mediated by the porticos that distribute to the restored perimeter. Openings on the existing brick wall, opens up the interiors to the central space.



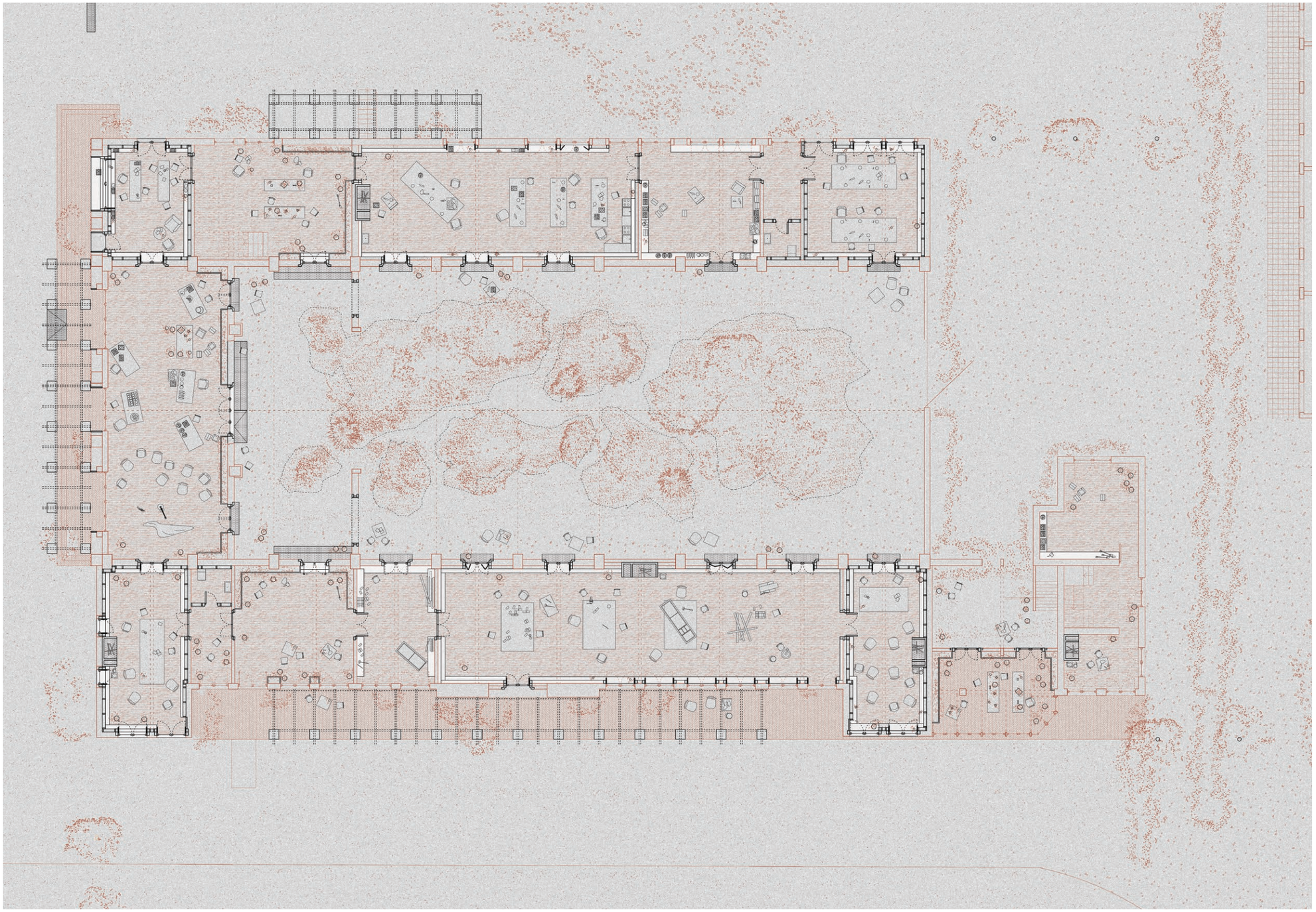
climate support

The interiors are originally heated by the existing system of radiators positioned below windows. The boilers are located in basement rooms.



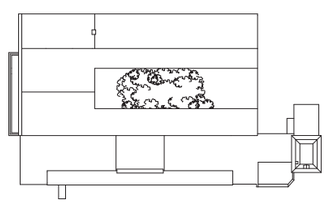
climate support

The climate of the interiors is regulated through the addition of a heat pump exchanging heat between interiors and the garden's soil. Collectors are laid horizontally under the garden. Natural ventilation flows from garden to the interiors.



negotiations

The plan reflect the negotiations between communal activities and nature. Perimeter spaces are organized following different degrees of collectivity.



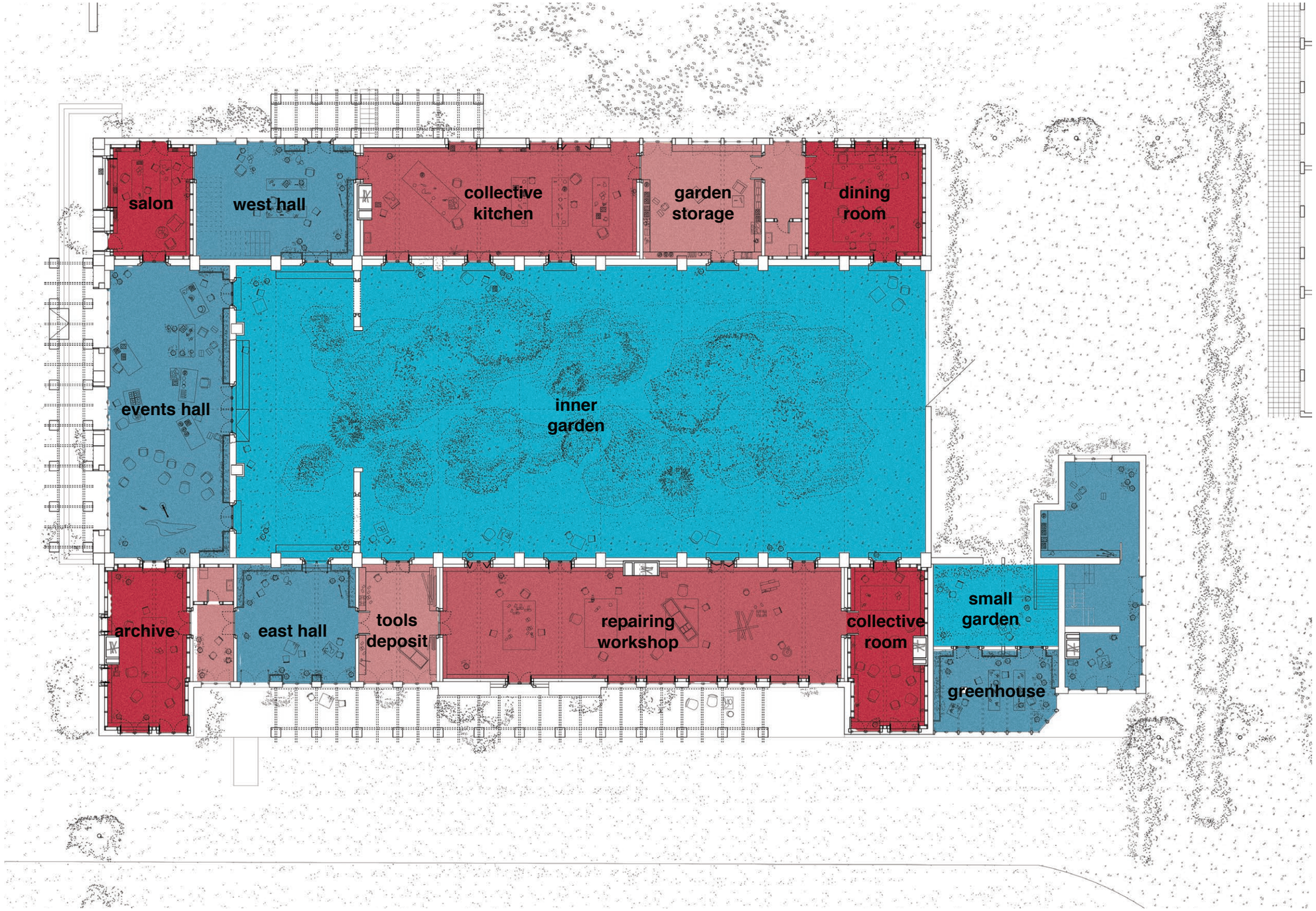
Ruined walls
Garden
1°C / 25°C

Painted walls
Wintergarden, seasonal collective events
15°C / 23°C

Partial panels
Storage and deposit
17°C / 21°C

Partial panels with insulation
Manual workshops and activities
19°C / 21°C

Complete panels with insulation
Reunions and collective discussions
21°C



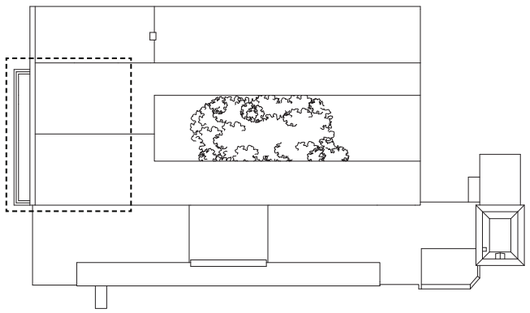
uses

The interiors are restored gradually, offering degrees of "openness". The community live part of the spaces according to the changing environmental conditions. Some other spaces are occupied with more stable activities.

Social infrastructure

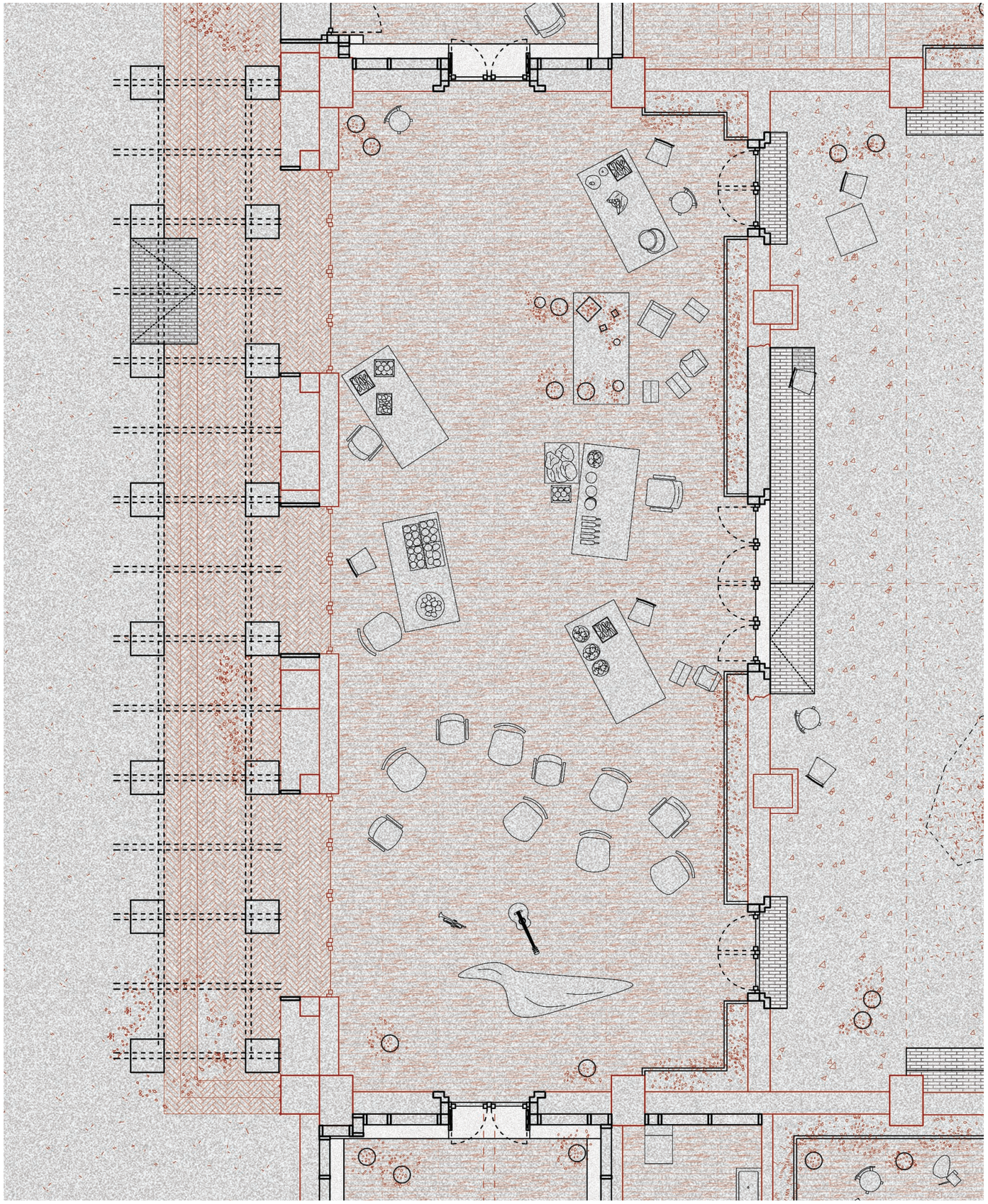
The project builds on the existing collective relationships rather than erasing them.

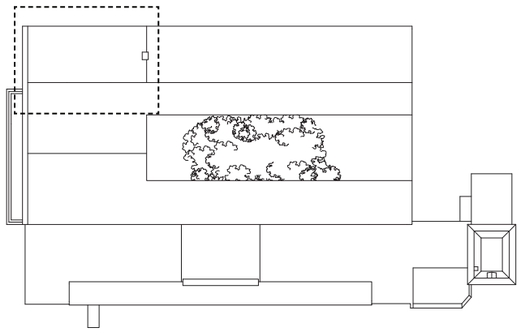
The inhabitants are guided in bringing the structure back into use by gardening and repairing.

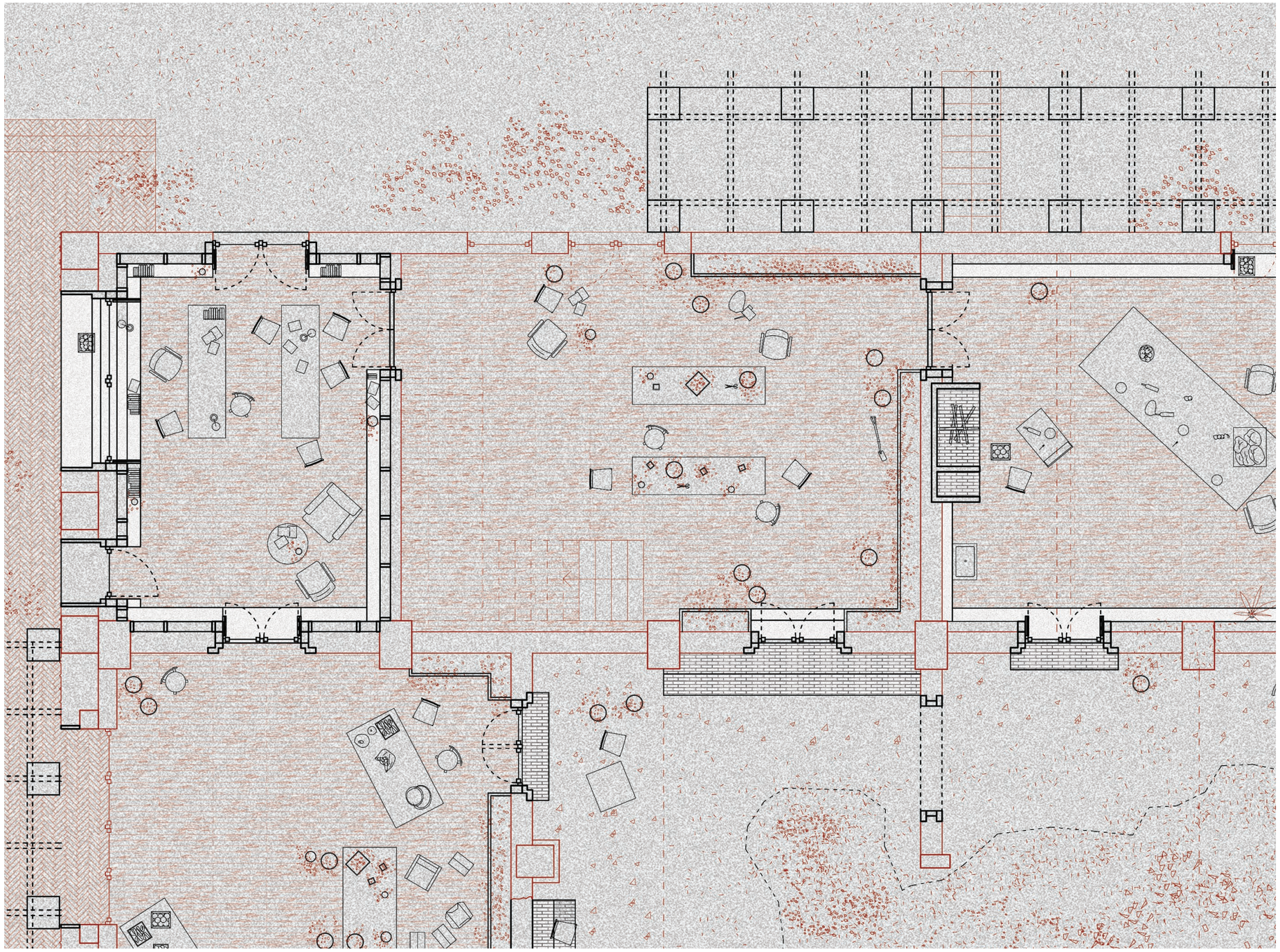


events hall

The porticos introduce to halls that distribute the interiors and the garden. The space is used for seasonal collective events such as markets or dances.

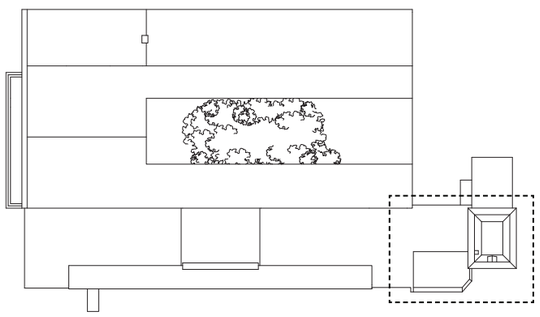


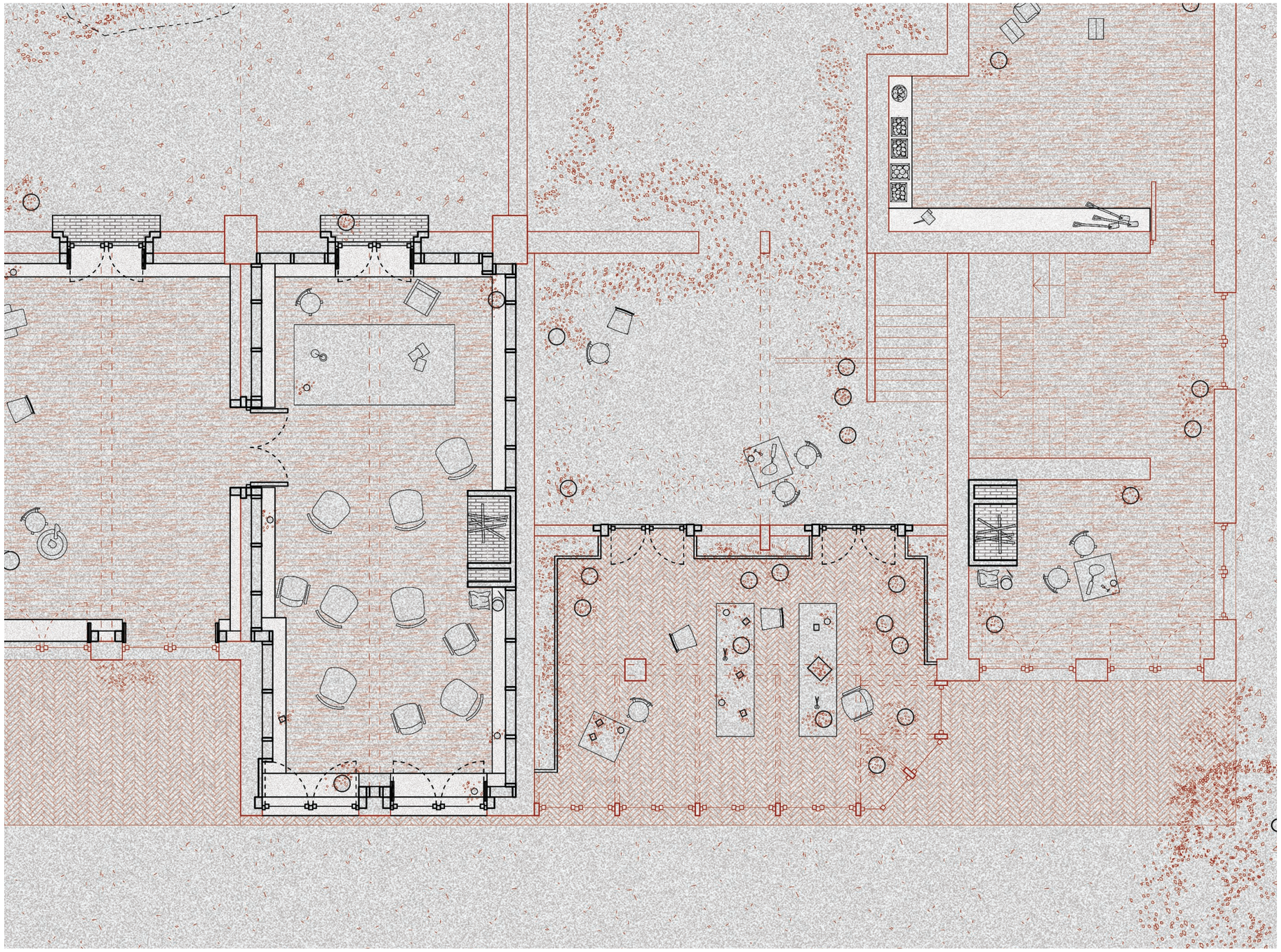




west hall

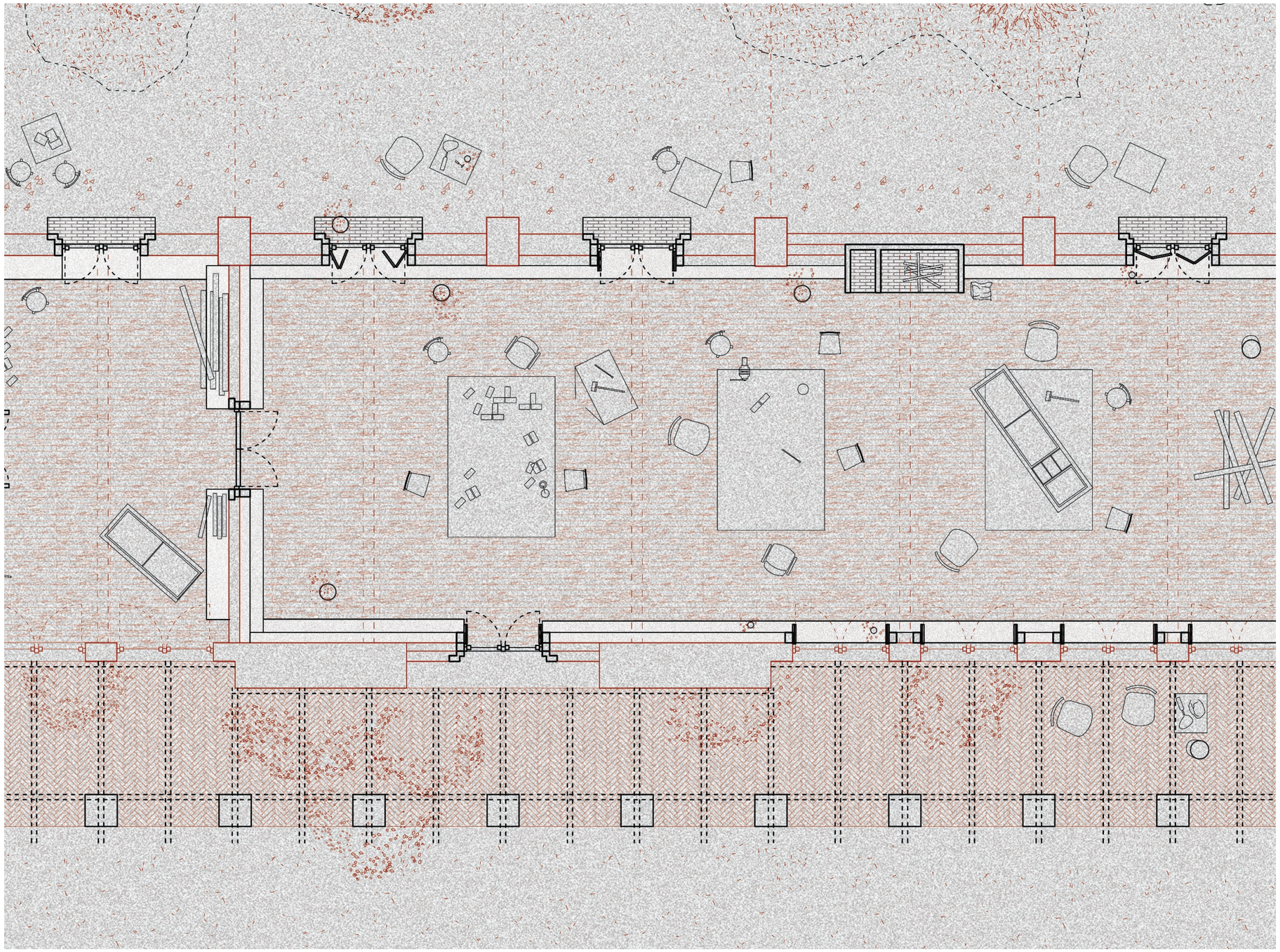
Other entrances are opened along the perimeter of the building. Generating a smooth connection btween inside and outside. Acting as a catalyst for activites in the gardens.

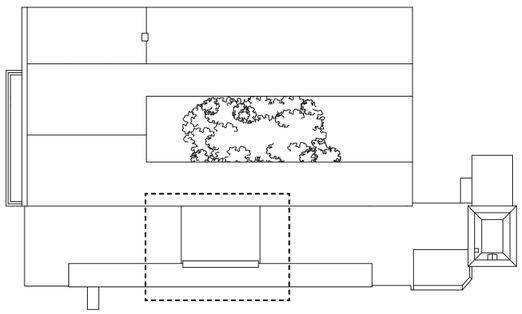




greenhouse

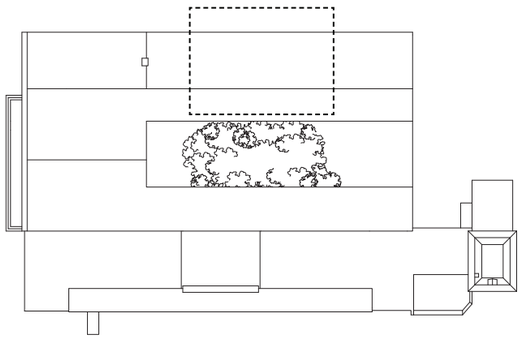
Within the sequence of spaces, some structures are just repainted. These are spaces where the collectivity culivate and study plants.

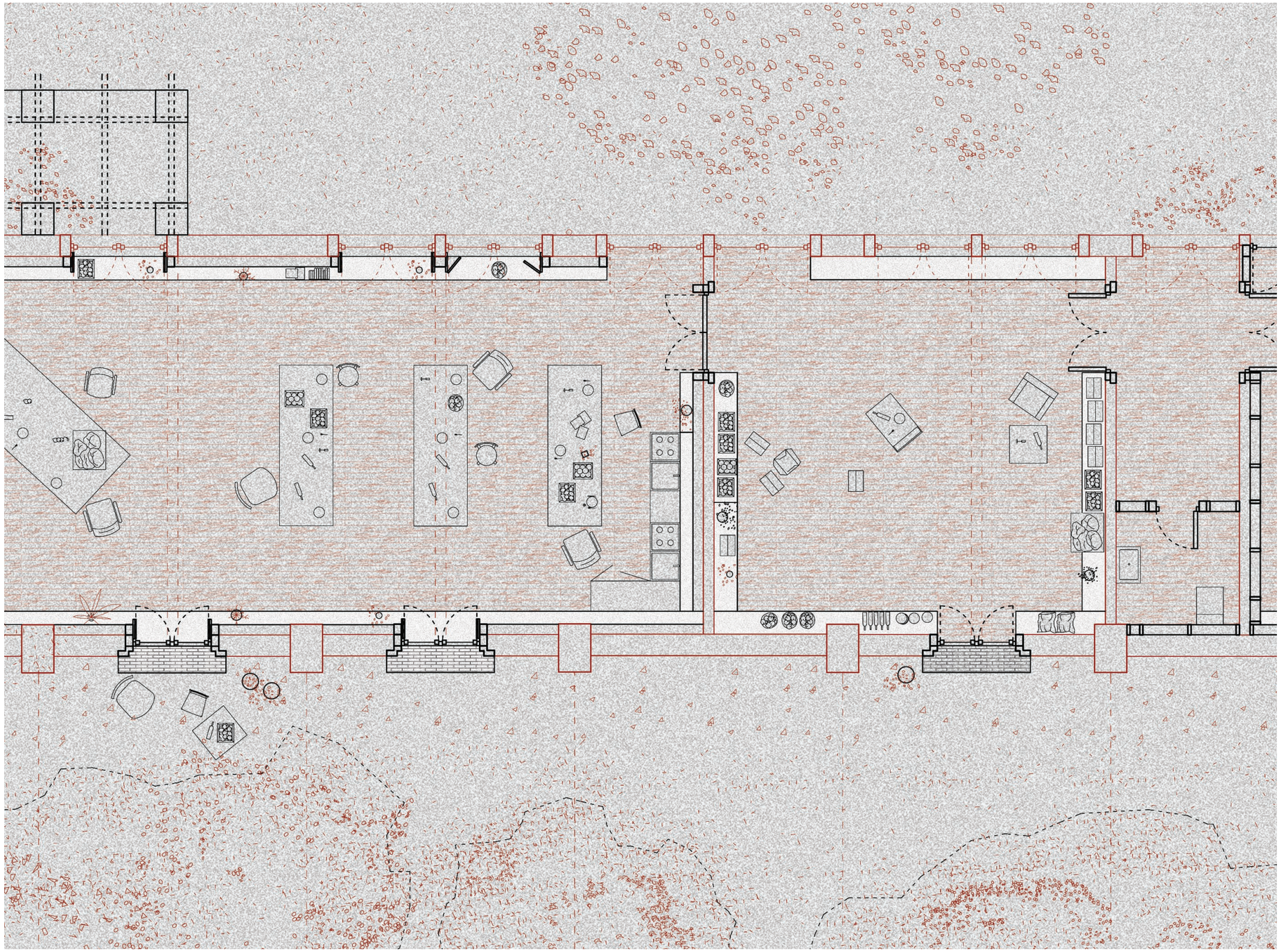




repairing workshop

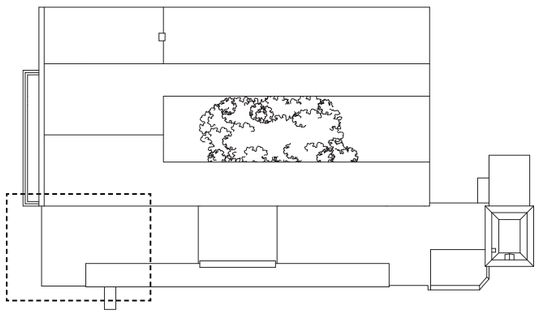
The project is built making use of existing skills and providing new training A storage offer space for the sharing of tools. In the repairing workshop people can repair construction components and exchange knowledge.

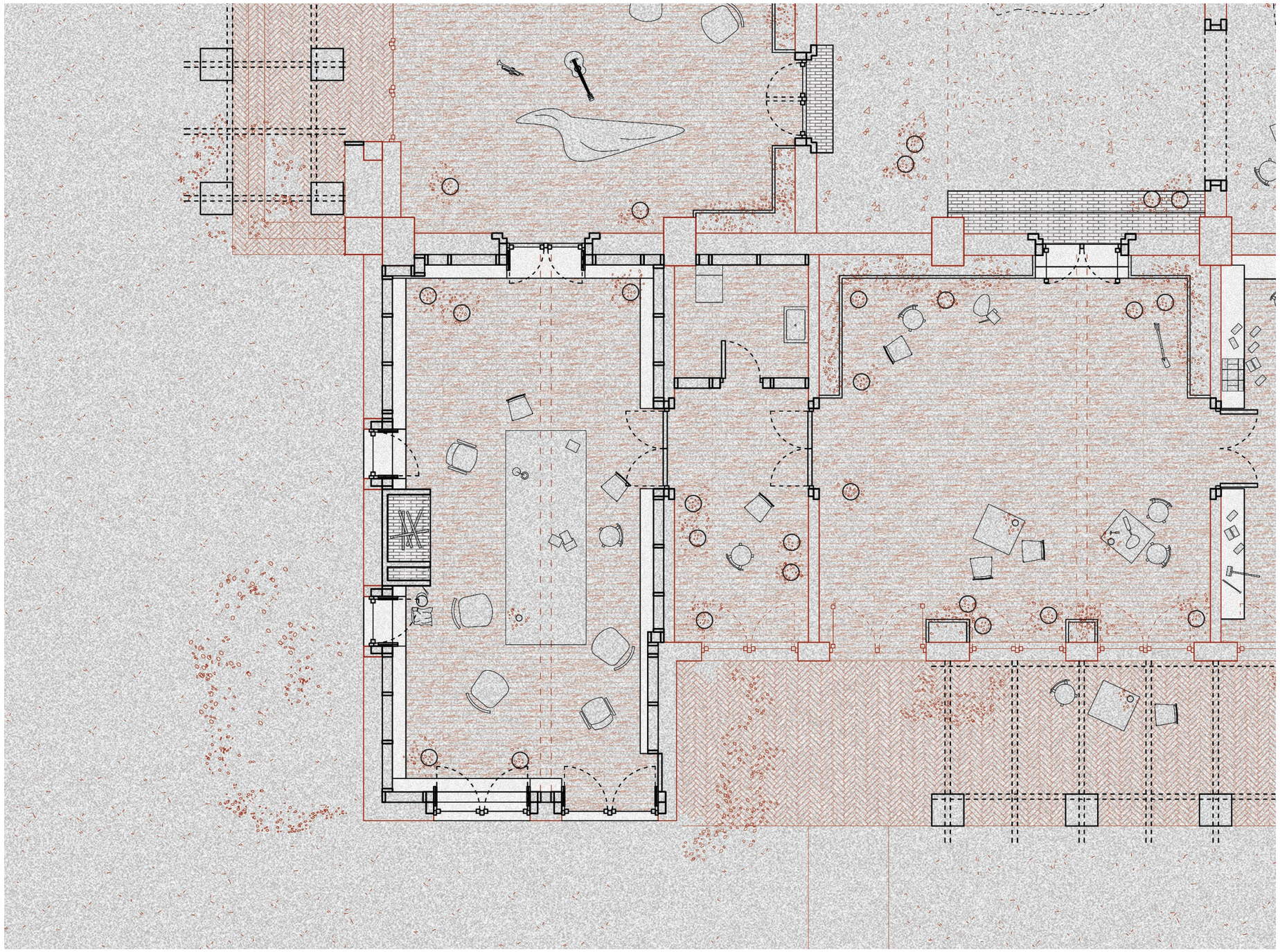




collective kitchen

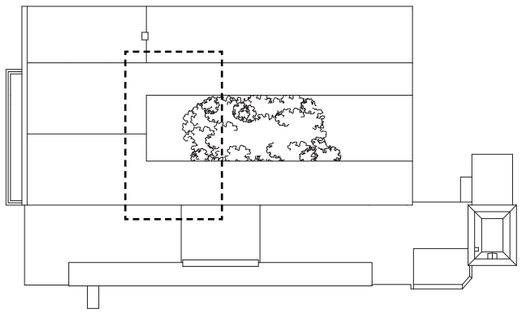
In the collective kitchen the products of the garden are prepared around restored fireplaces and large communal tables. Next to it, collected fruits and vegetables are stored in a cold room.

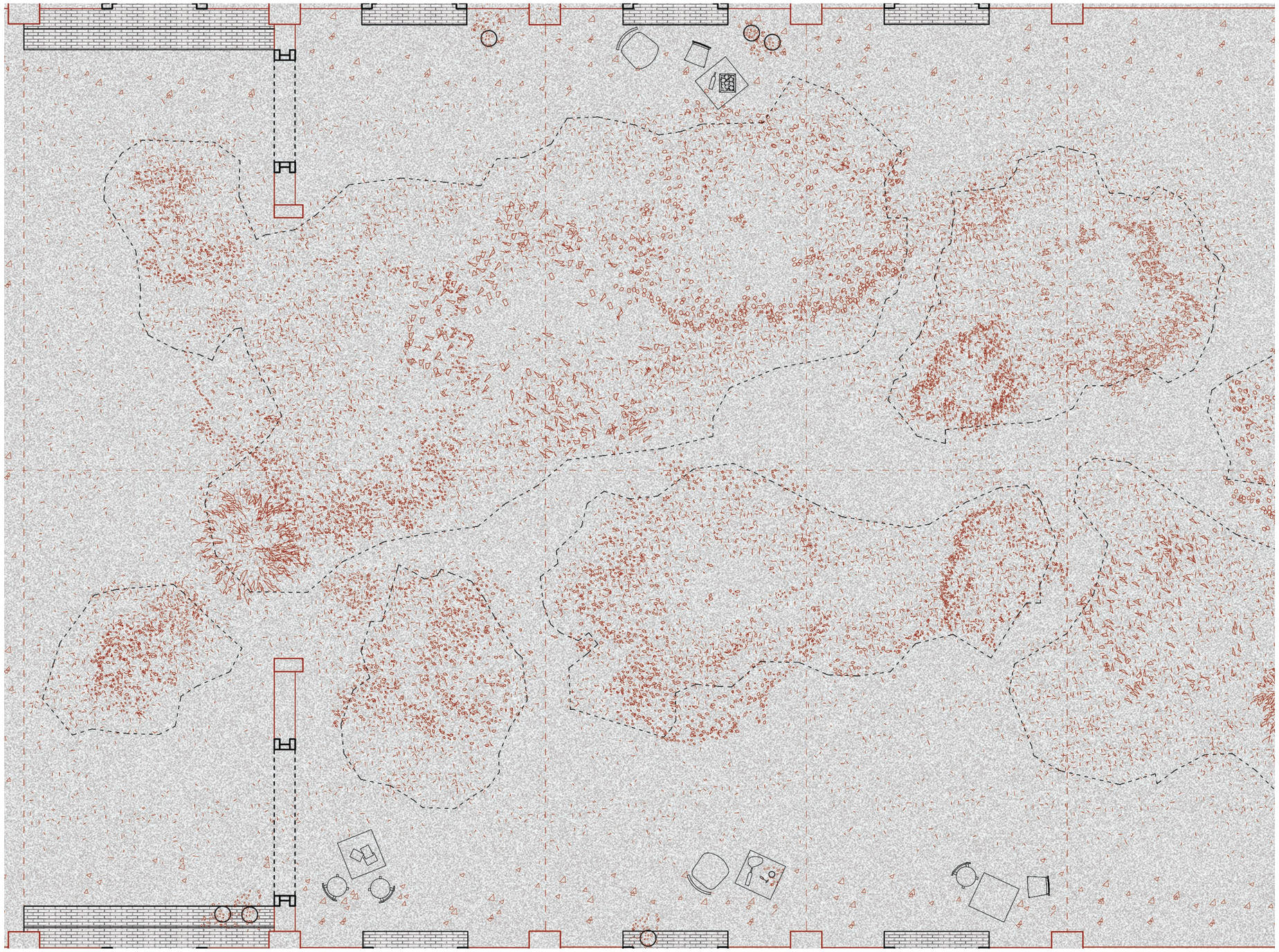




salon

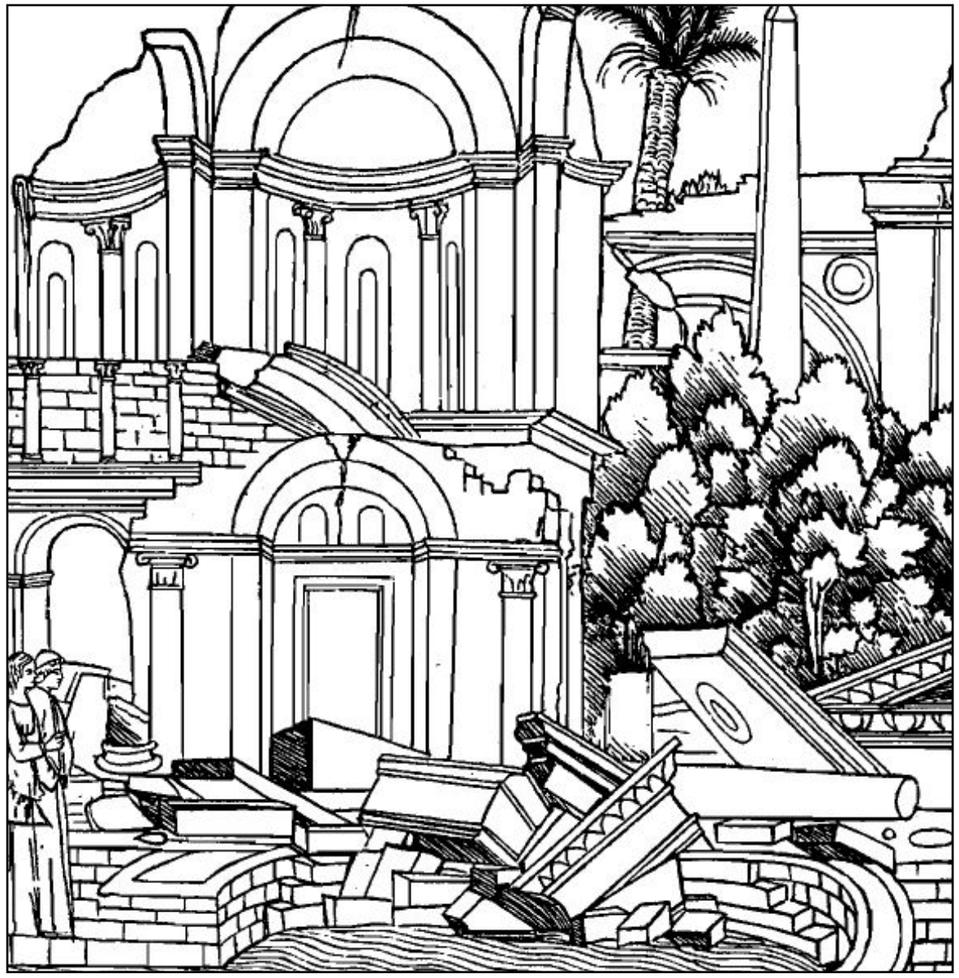
Rooms in a less advanced stage of ruination are restored more deeply, offering a warm, intimate atmosphere. The community use the space for collective meetings and discussions.





garden

The center has higher vegetation while the perimeter offer spaces for communal activities. It collects elements from the outside landscape and is an example of nature in derelict plots.

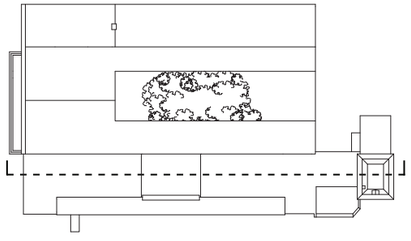


Ruin in reverse

As the project is gradually assembled the dialogue between decay and restored give the building the appearance of a "ruin in reverse".

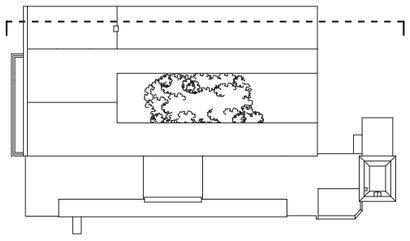
In-between ruination and reconstruction

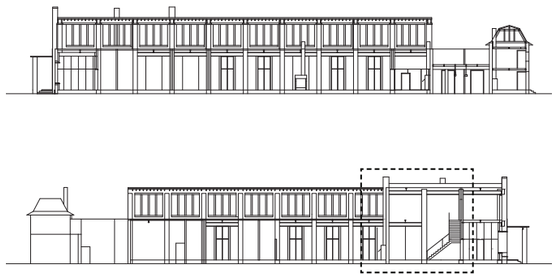
During the renovation work it is generated a sequence of ruined and newly constructed. The definition of interior and exterior is challenged and modified.



In-between ruination and reconstruction

The gradual reconstruction of the interiors, give every room a different atmosphere and environment. This depends on the dialogue that the spaces have with the garden and the ruination of the building.



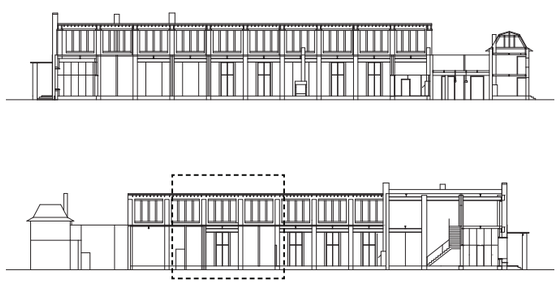


painted walls

In the halls, that constitute a transition from exterior to inner garden, the flaking plaster is covered with white painting until half of the window height.

painted walls

The space has still a strong character of ruin. Plants are introduced along the wall. The garden directly enters the interiors.

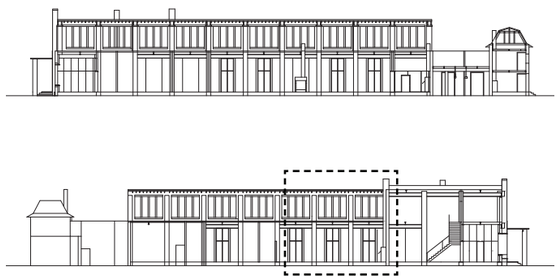


partial paneling

The walls painted to a higher level and timber planks are added. Here the cold room is mainly used as a storage for the garden's products.

partial paneling
with insulation

The rooms are then covered and insulated to the openings height. The panels give comfort for the level of space that is actually needed for more practical activities.



partial paneling
with insulation

The higher part of the wall and the ceiling are left untouched. They still bring the traces of time and ruination.

complete paneling
with insulation

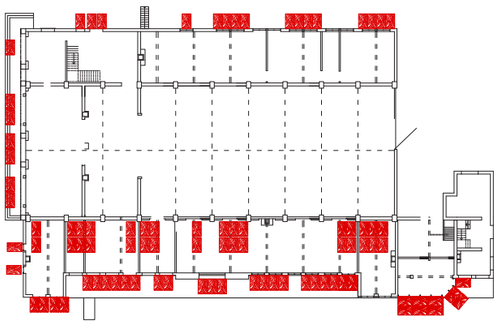
Where the resources allow it, the room can be completely restored. The panels cover the wall up to the ceiling and the relationship with the garden is visible only through the window.

reclamation process

Inhabitants are involved in subtracting, restoring and adding material to the building with simple tasks. This will generate a collective sense of reappropriation using knowledge and skills embedded in the context.

subtraction

The subtraction of construction material from the building generates a material atlas. The architectural elements will be relocated in the project.

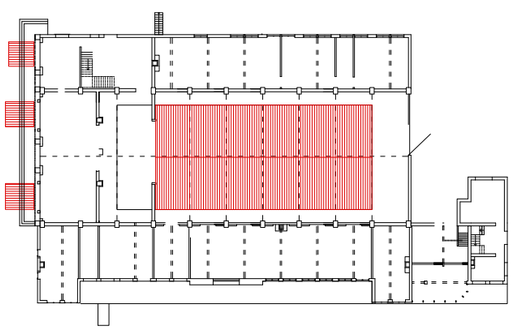


material atlas: plywood plates

The openings are restored by removing the plywood plates that today block doors and windows.

material atlas: metallic boards

Light is introduced in the central hall by removing the metallic plates that constitute the roof.



material atlas: metallic boards

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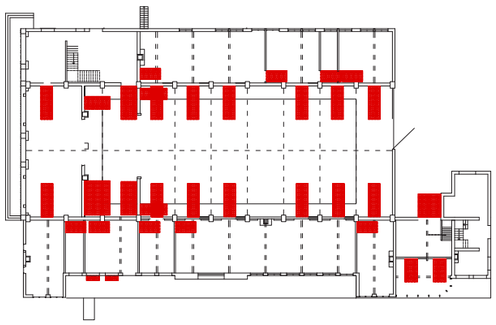
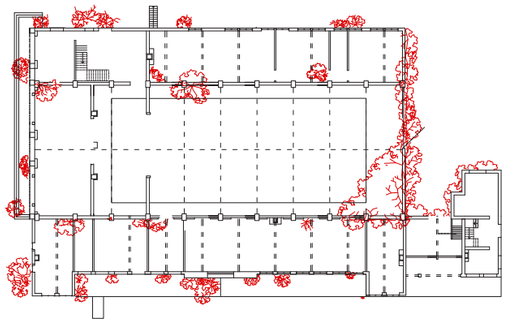


material atlas: bricks

Bricks are taken away from the walls surrounding the central space preparing the openings for the displacing of windows. New connections are introduced between rooms.

material atlas: hemp and weeds

Weeds and hemp growing along the facade are pruned. The wooden part of the stem will be used to produce insulation.



material atlas: hemp and weeds

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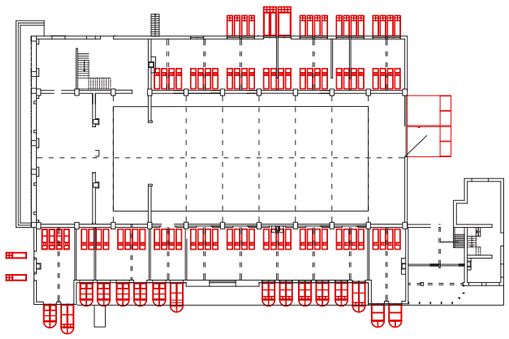


material atlas: windows and doors

Windows and door are disassembled by the inhabitants and brought to the repairing workshop. At this moment the building is a fragile and empty ruin.

porticos

Porticos are built by stacking the bricks reclaimed from demolitions. The roof cornice is repaired, retaining new soil for plants to come.

new openings

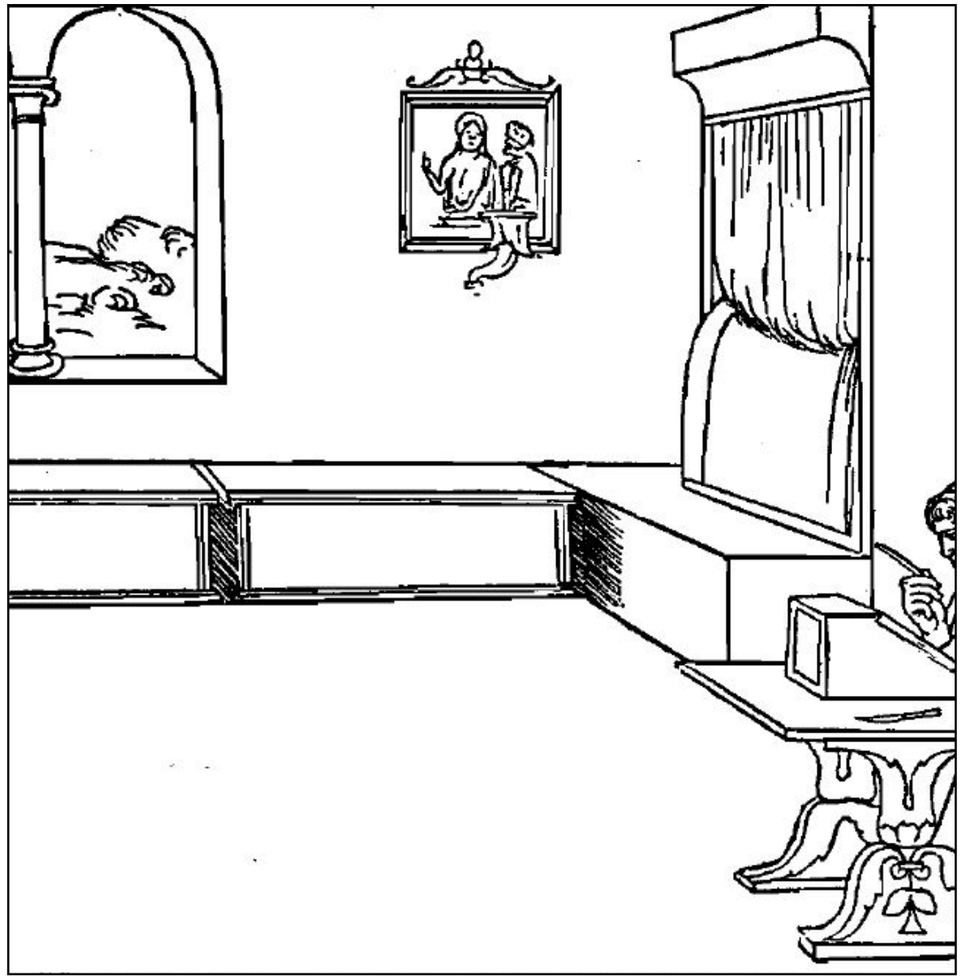
In the central hall, bricks have been stacked to create balconies. The community assemble the restored windows in their new position.

planting

Holes are opened on the concrete slab of the central space for the introduction of plants.

additions and care

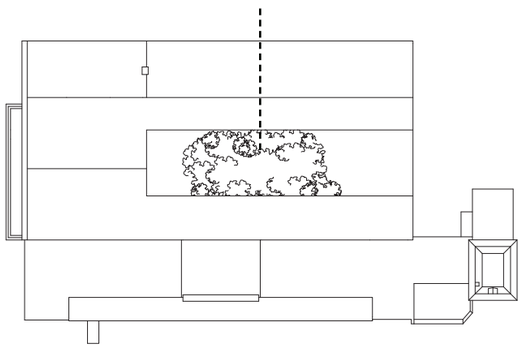
Where needed, new elements can be added to the construction.The incremental and careful way of building, keeps the identity of the building with rather limited costs. A shared feeling of attachment will involve the inhabitants in taking care of the components.



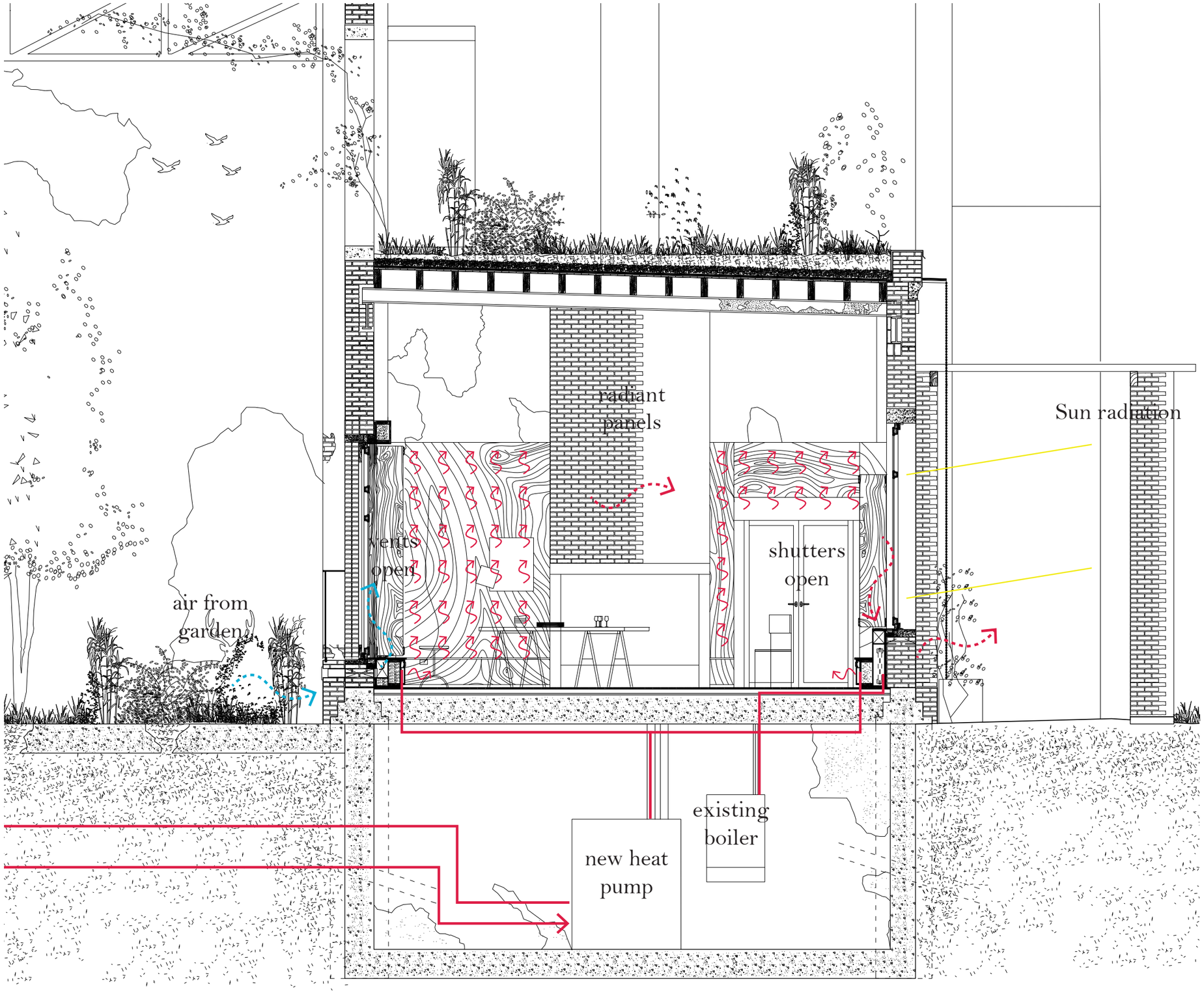
Construction rules

Construction rules, guide the users in restoring and modifying single architectural elements.

A manual that explain construction passages. A collective guideline for reclaiming abandoned structures.

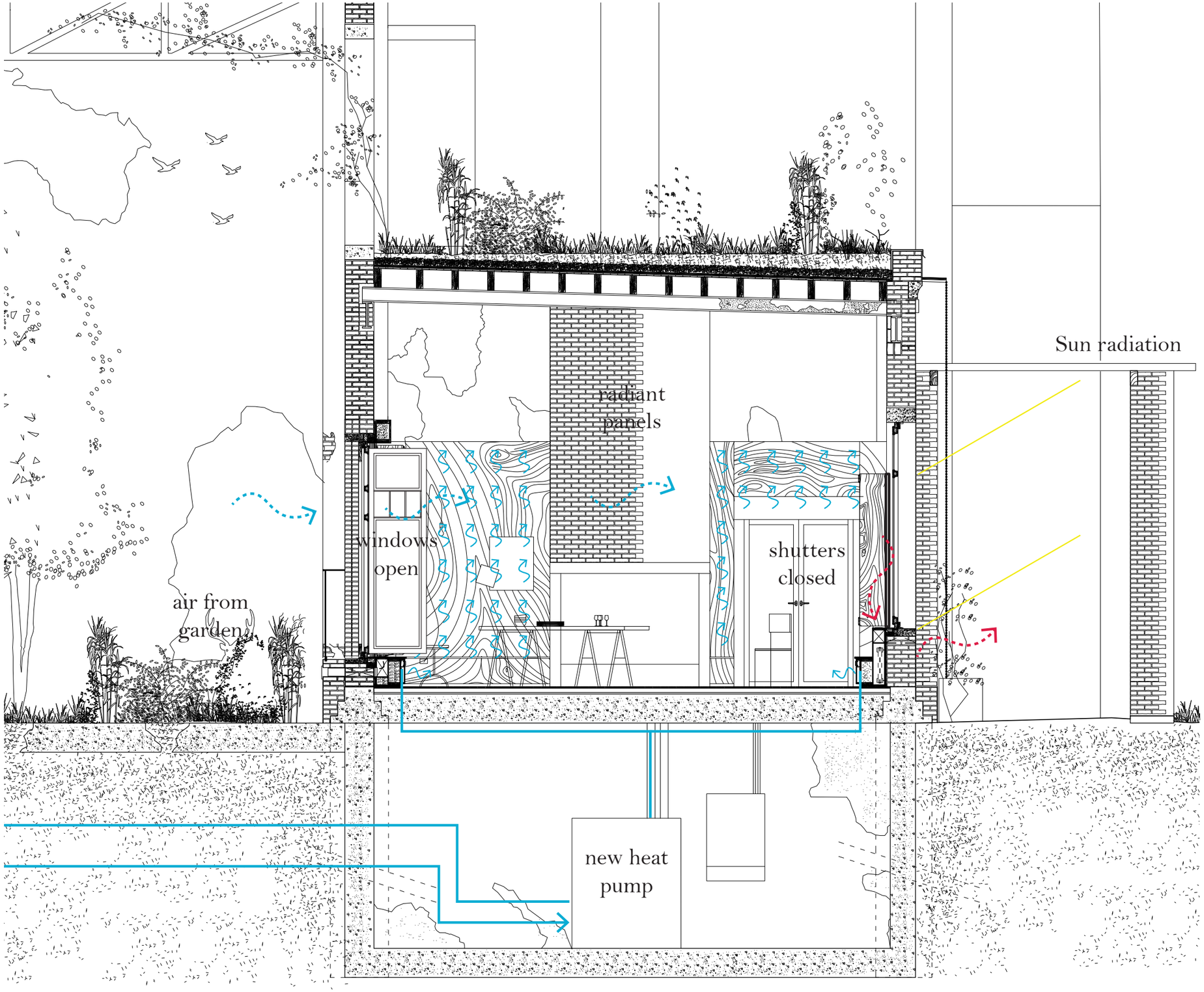


Construction rules guide the inhabitants in adding panels to the wall, constructing roof gardens, opening new windows and planting the inner garden.



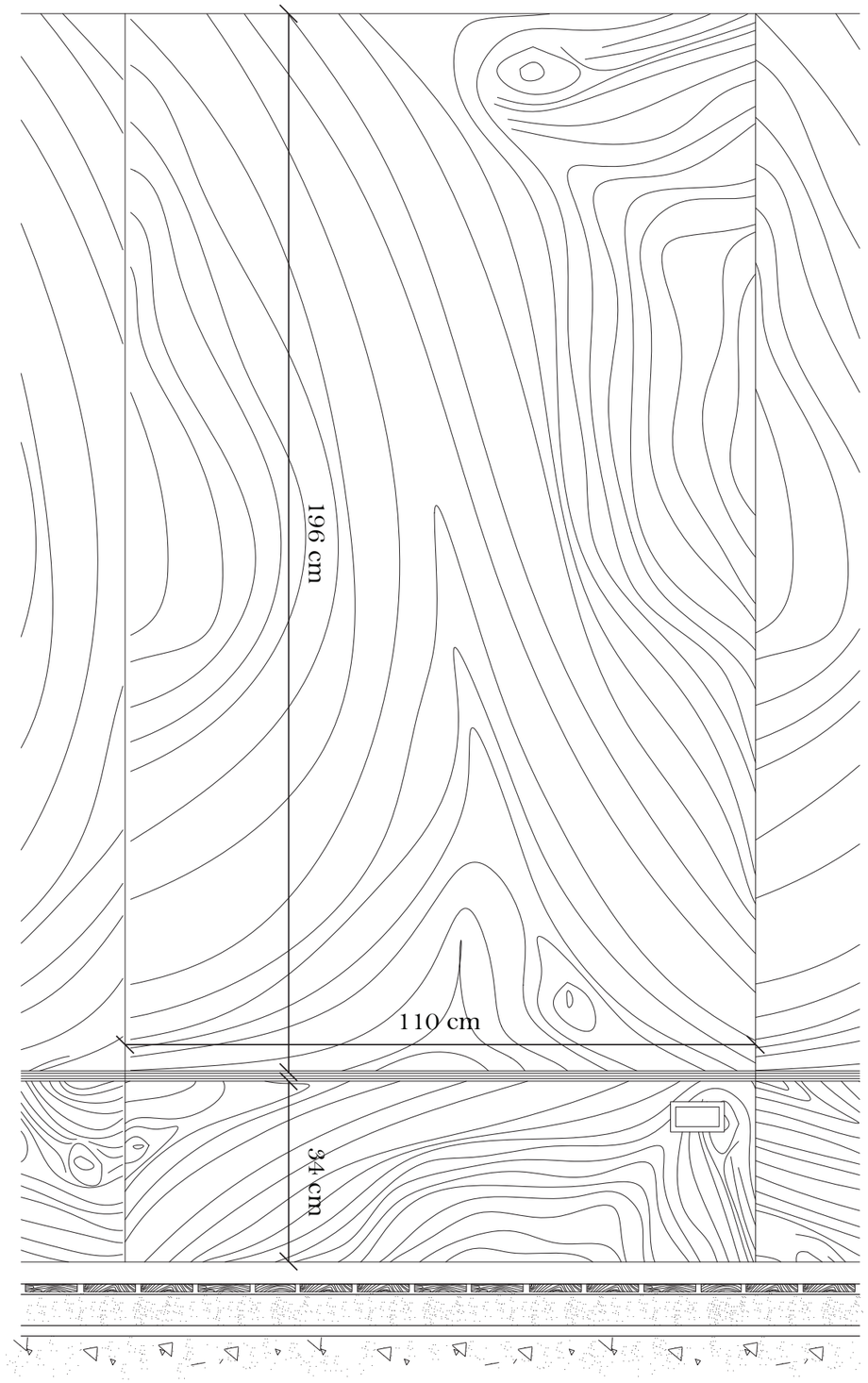
climate support: winter

Modifications of the interiors contribute to the climate. In winter, heat is collected from the ground, while fresh air from the garden is allowed through the vents installed below the windows.

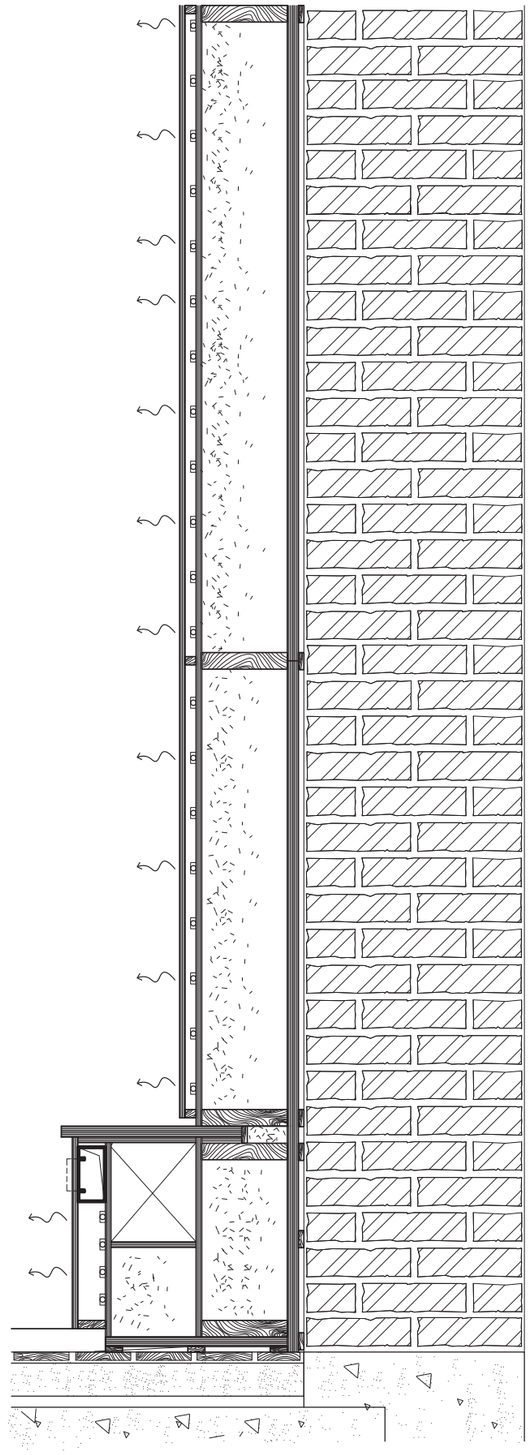


climate support: summer

In summer, the panels exchange energy with the garden, cooling the interiors. The shutters are closed to protects from sun radiation and windows can be opened on the opposite side.



panels elevation



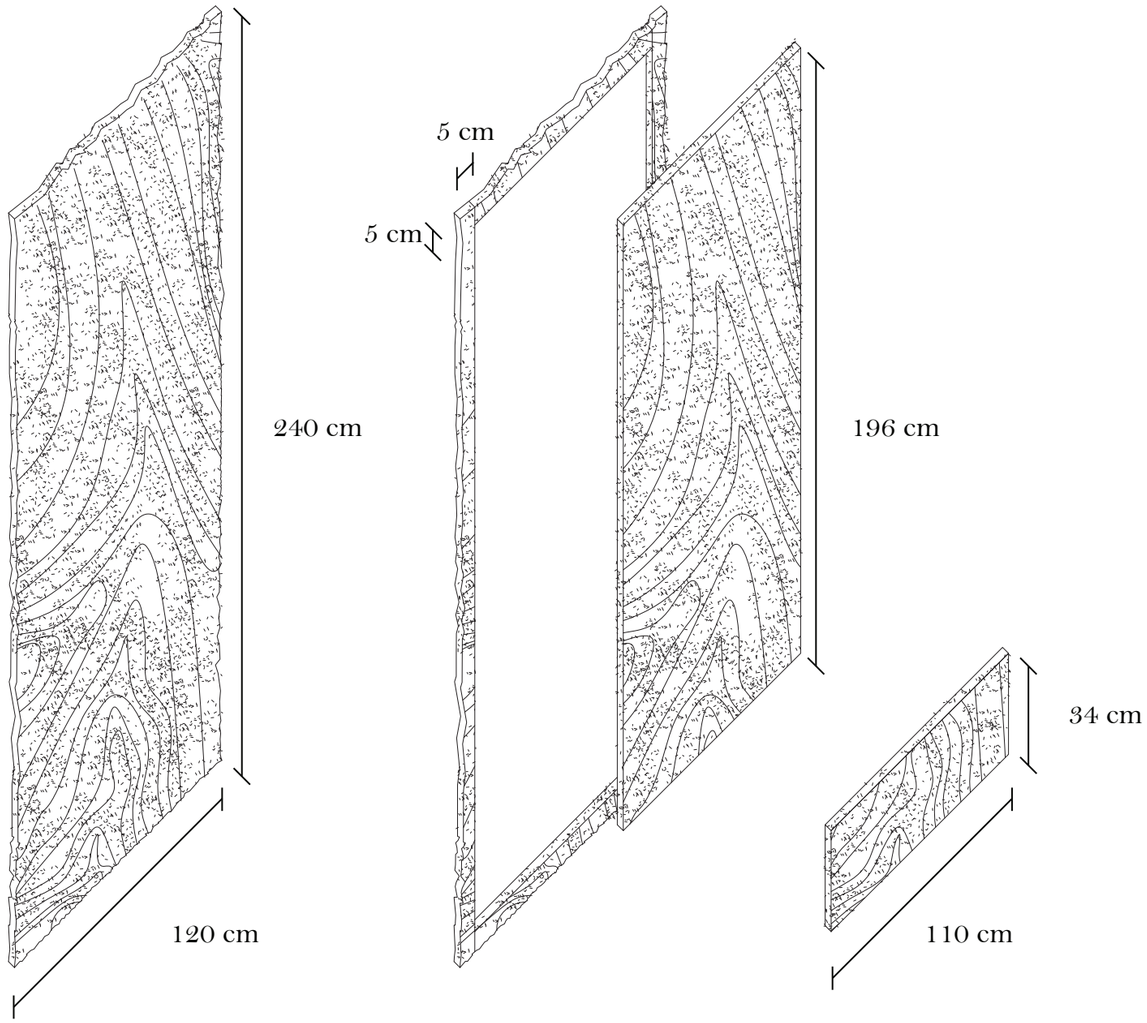
technical layer

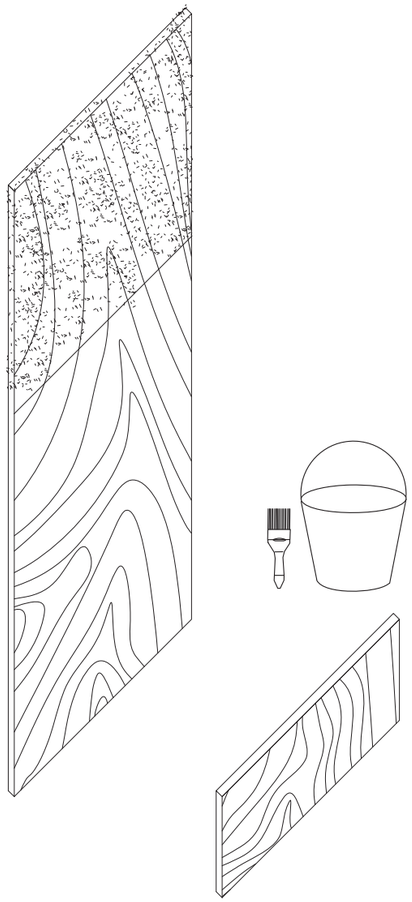
insulation layer

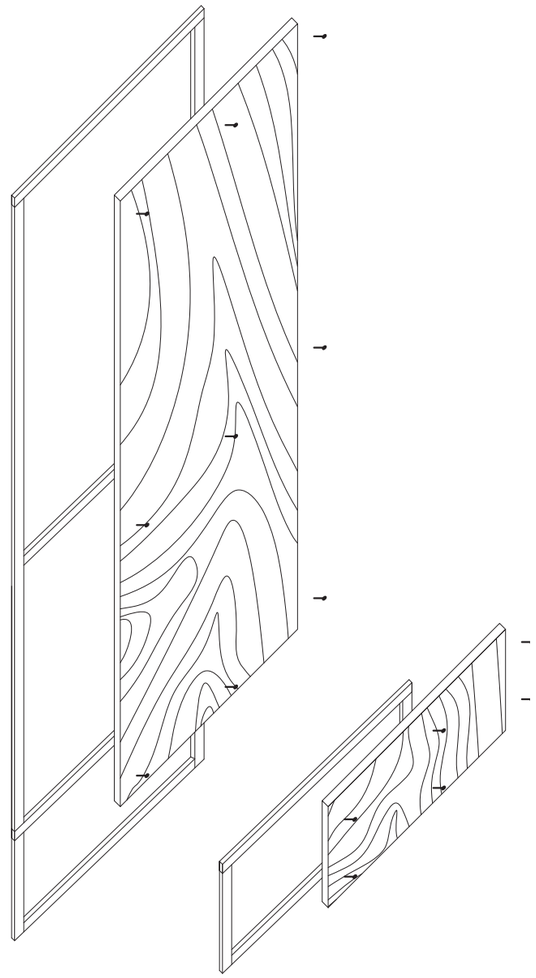
existing wall

how to: wall paneling

Existing walls are gradually covered with an insulation layer and a technical layer. A cladding of reclamed plywood plates are positioned over radiants panels.

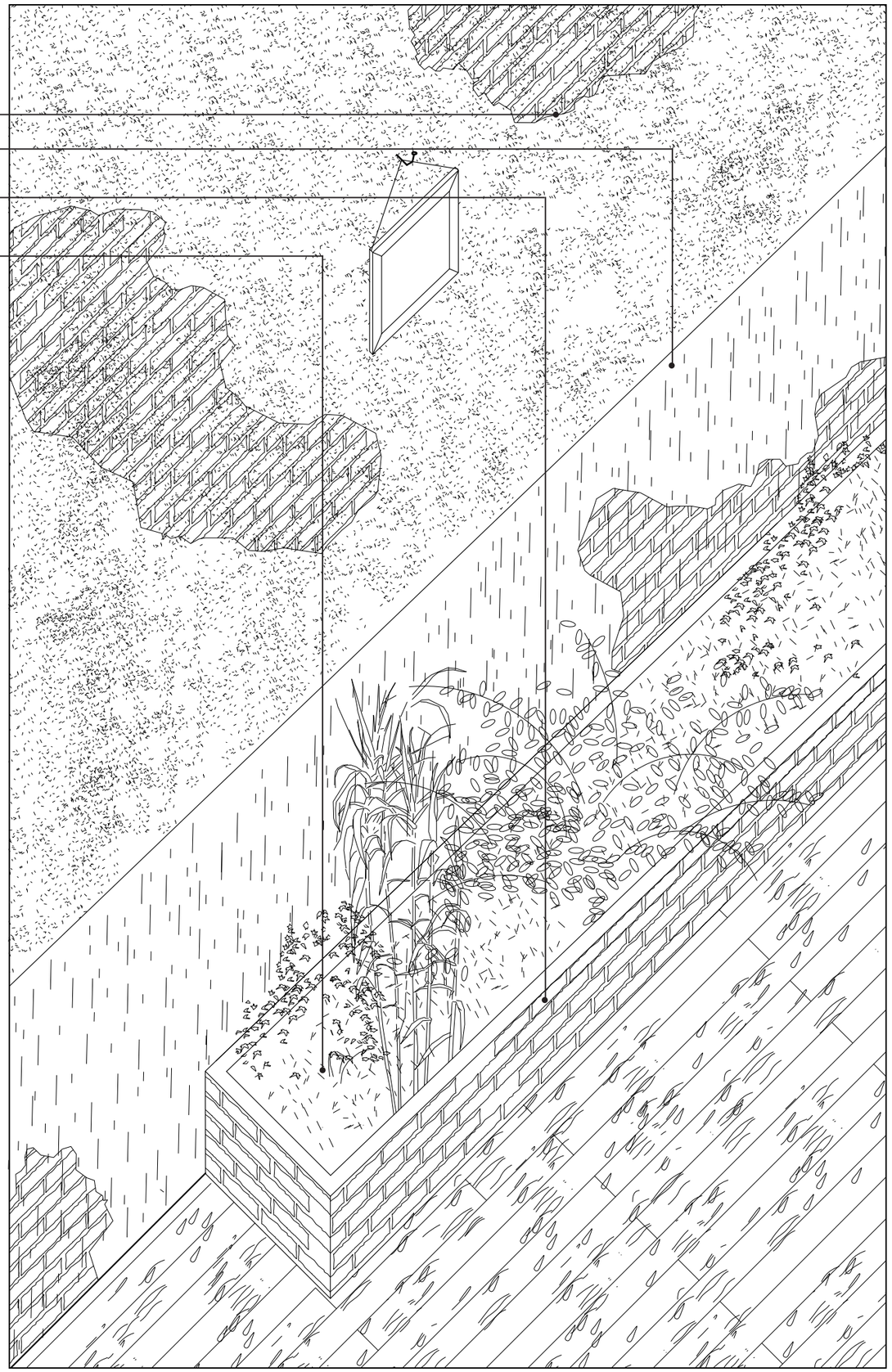






In order to eliminate imperfections the panels edges are cutted, reducing the standard size of 120cmx240cm. Then, the rough surface is covered with a linseed oil painting, leaving traces of the wood veins.

Wall finishing
scale 1:20

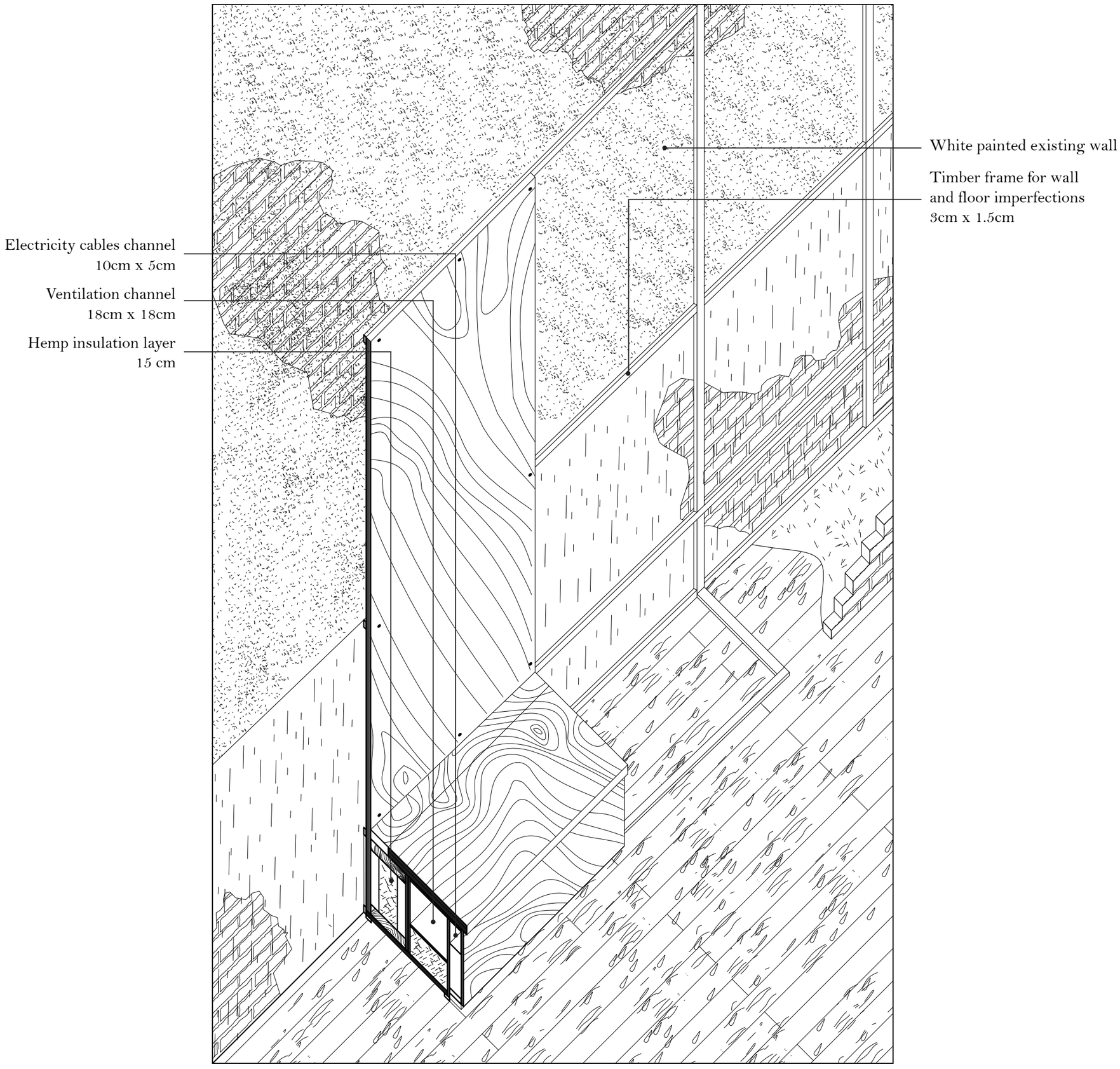


construction passages:

wall painting

Initially walls are painted white up to the height of 1.6 m, leaving traces of the wall ruination. Reclaimed bricks are stacked to build pots for introducing plants in the interiors.

Wall finishing
scale 1:20



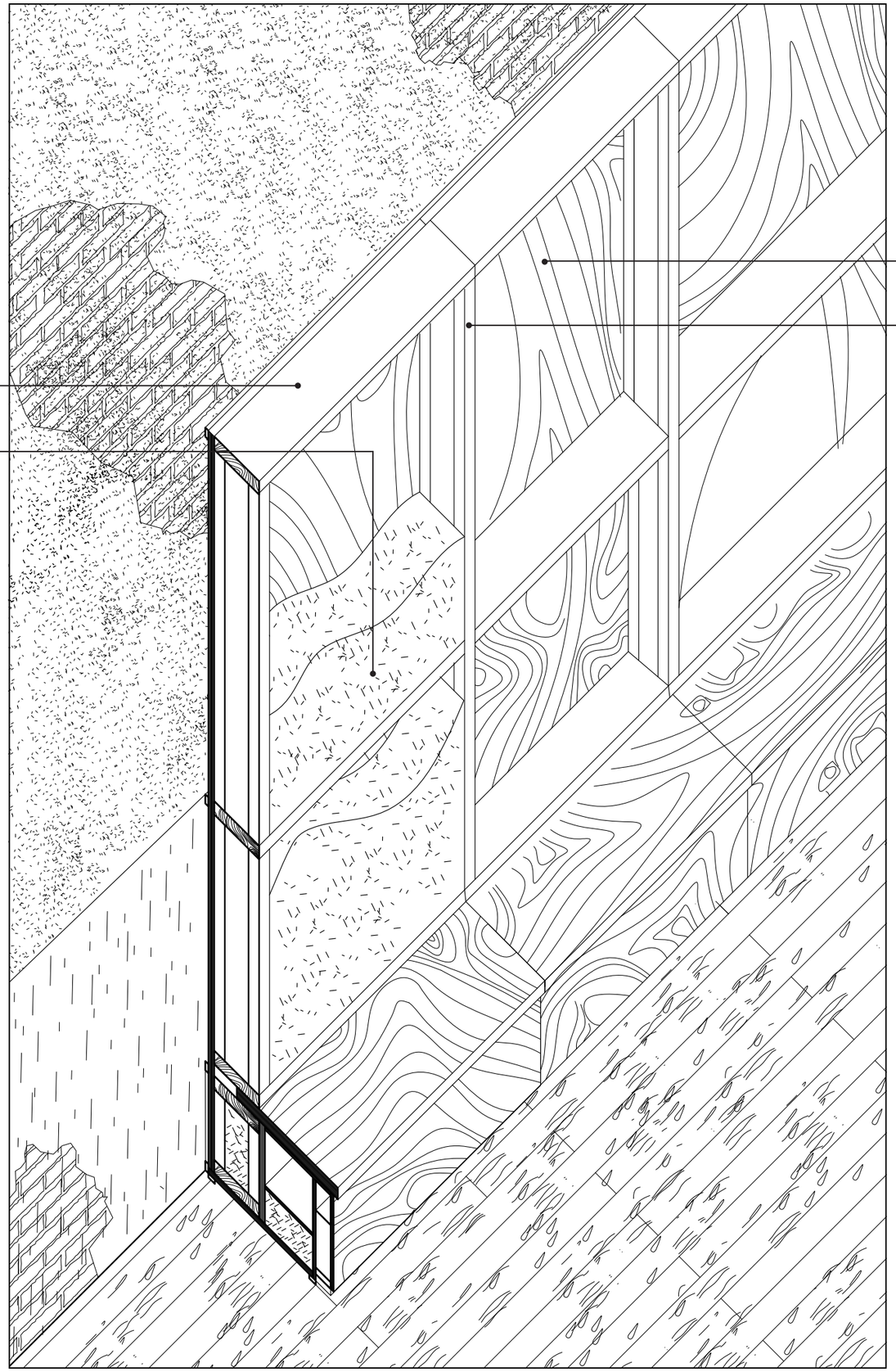
construction passages:

first plywood layer

The first layer of plywood boards is positioned to protect the existing wall without insulating it.

Where the walls are just repainted, the garden constitute a strong presence in the interiors. The non-finished wall give the space the atmosphere of a gradual transformation, where communal gardening activities rotates around the restored fireplace.

Wall finishing
scale 1:20

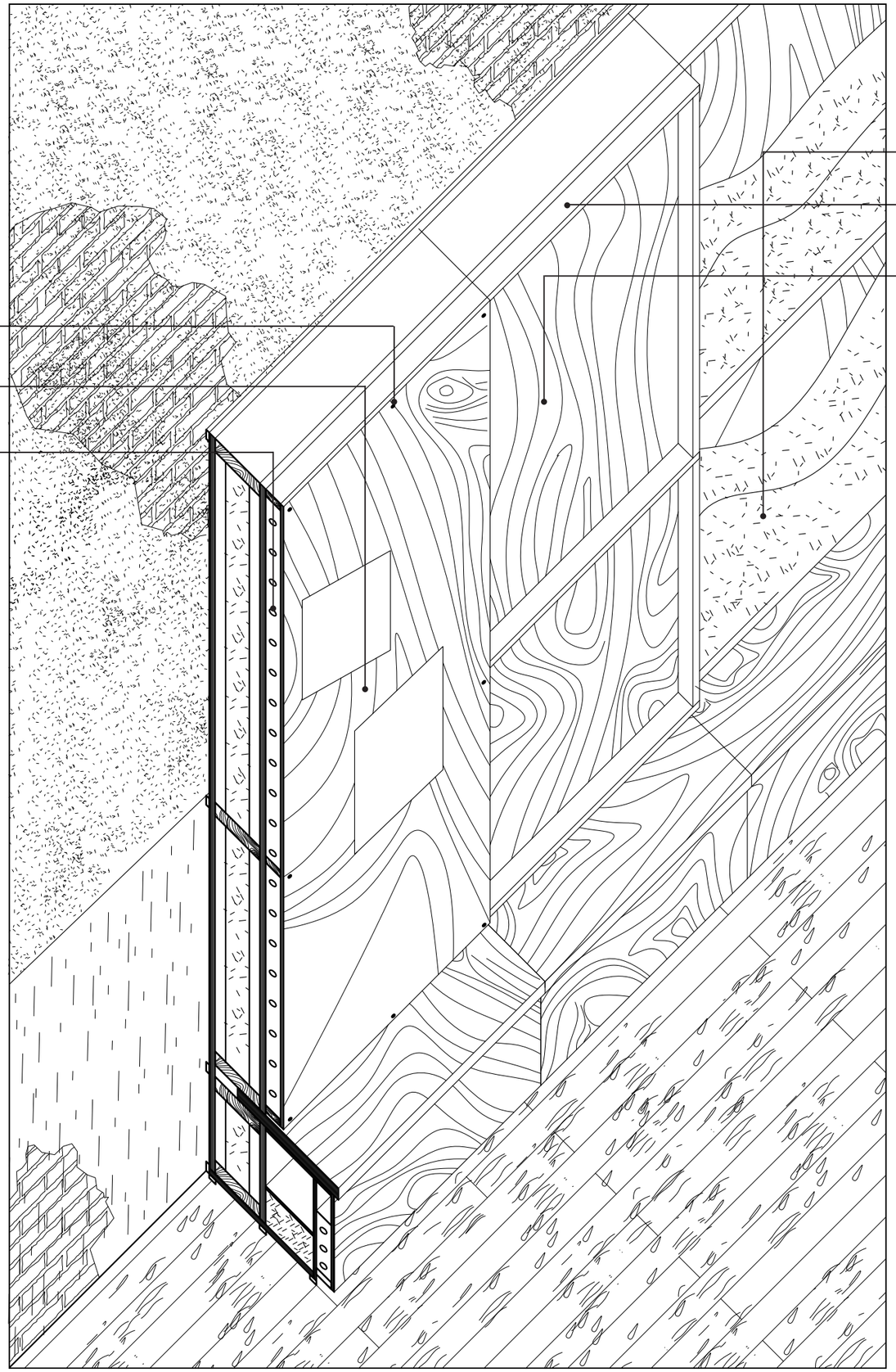


construction passages:

hemp insulation

A larger timber frame is positioned on the timber boards and filled with hemp. This passage is providing the insulation layer.

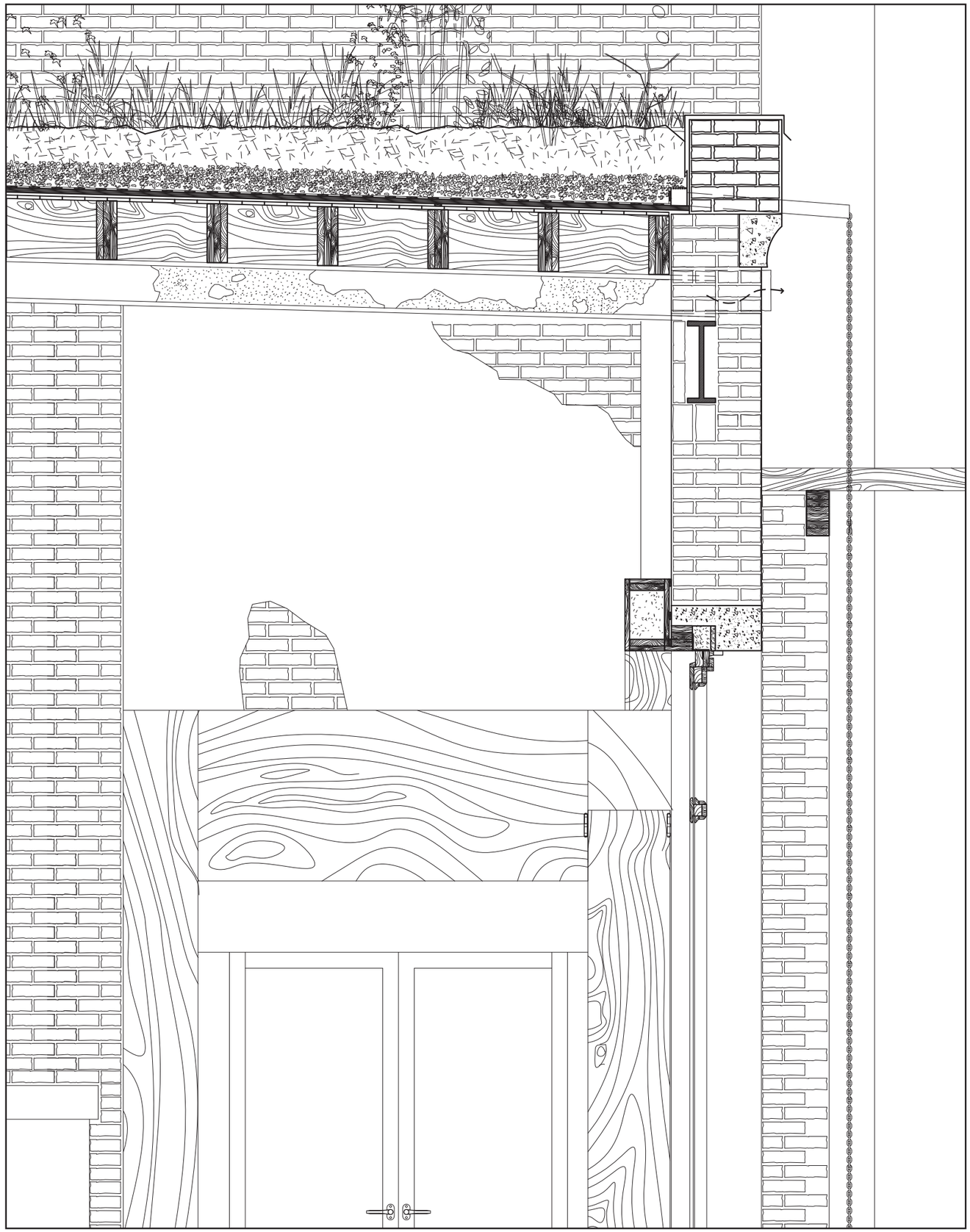
Wall finishing
scale 1:20



construction passages:
radiant tubes and finishing

Timber boards are positioned as finishing over radiant tubes. The wall is then protected with white painted reclaimed plywood boards.

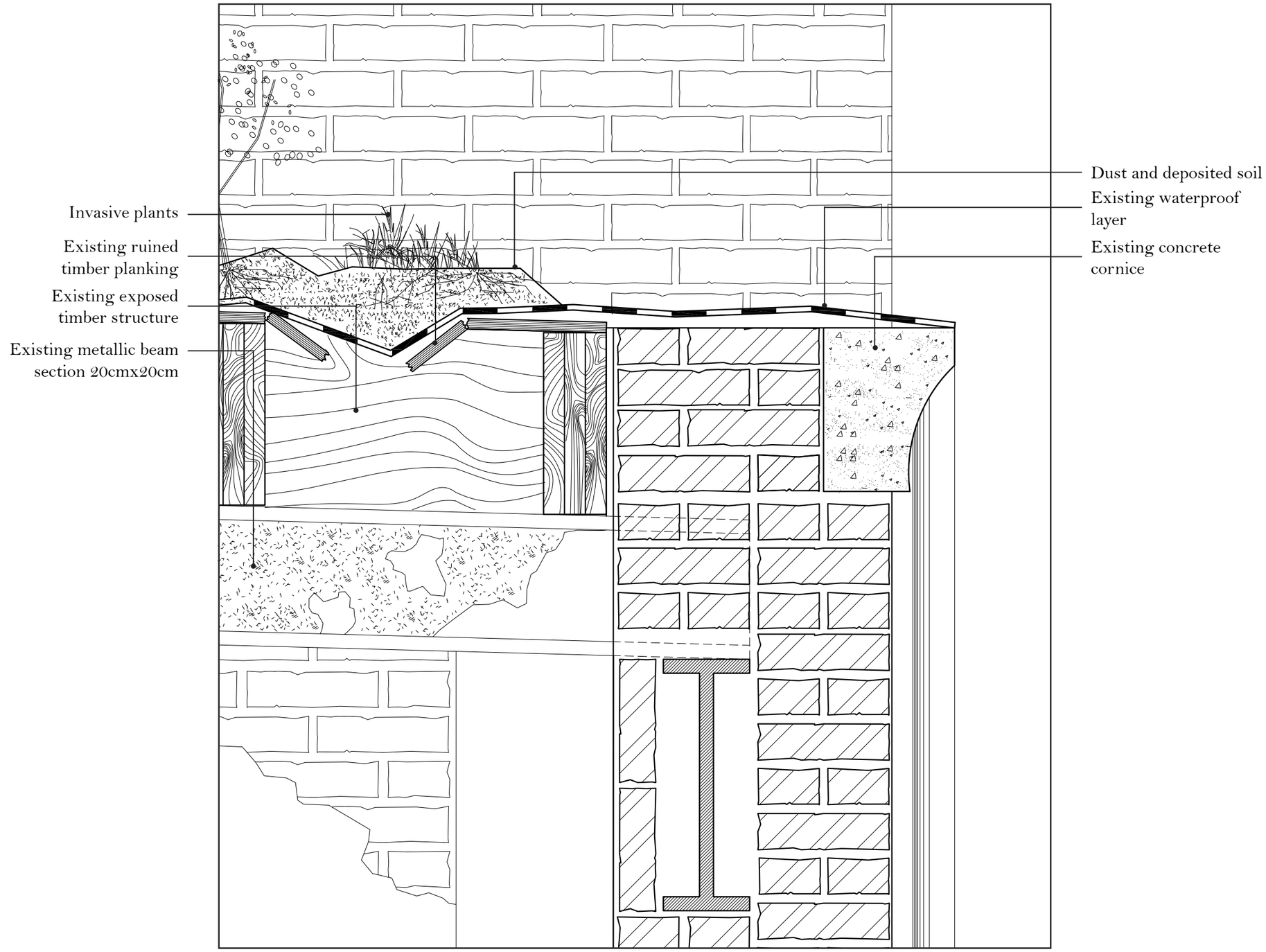
In this room, the space still bring traces of ruination while walls are covered and insulated until the level of the new openings. This offer comfort for more practical activites. Panels can be disassembled for reparations and inspections.



how to: roof reparation

Roof reclamation responds to the different degrees of restoration of the wall. Construction steps allow its reclamation by plants while restoring comfort to the interiors.

Roof section
scale 1:5

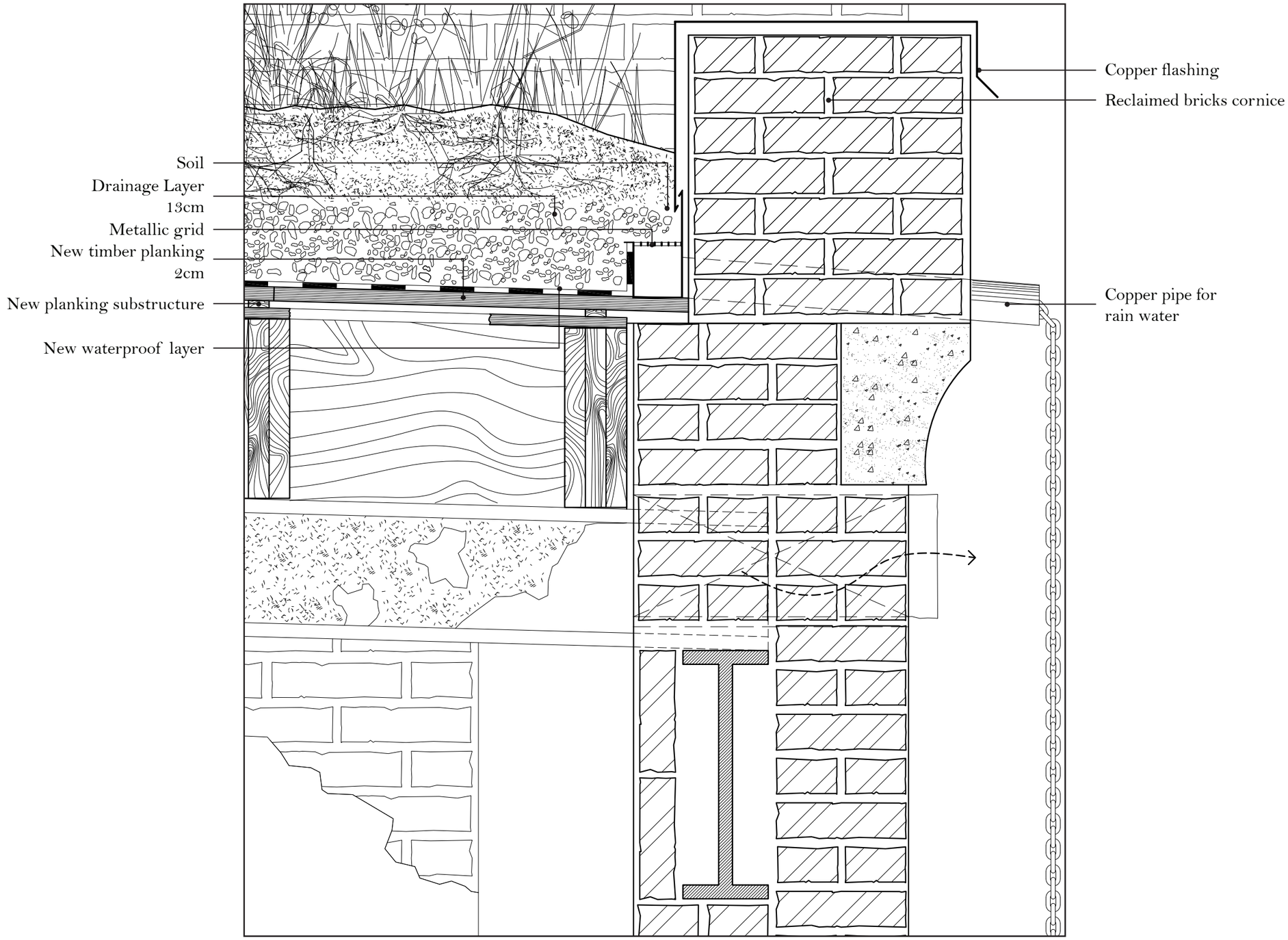


construction passages:

existing

The roof structure presents today the deposit of soil and dust. This causes damage to the structures but also contribute to the proliferation of invasive plants.

Roof section
scale 1:5

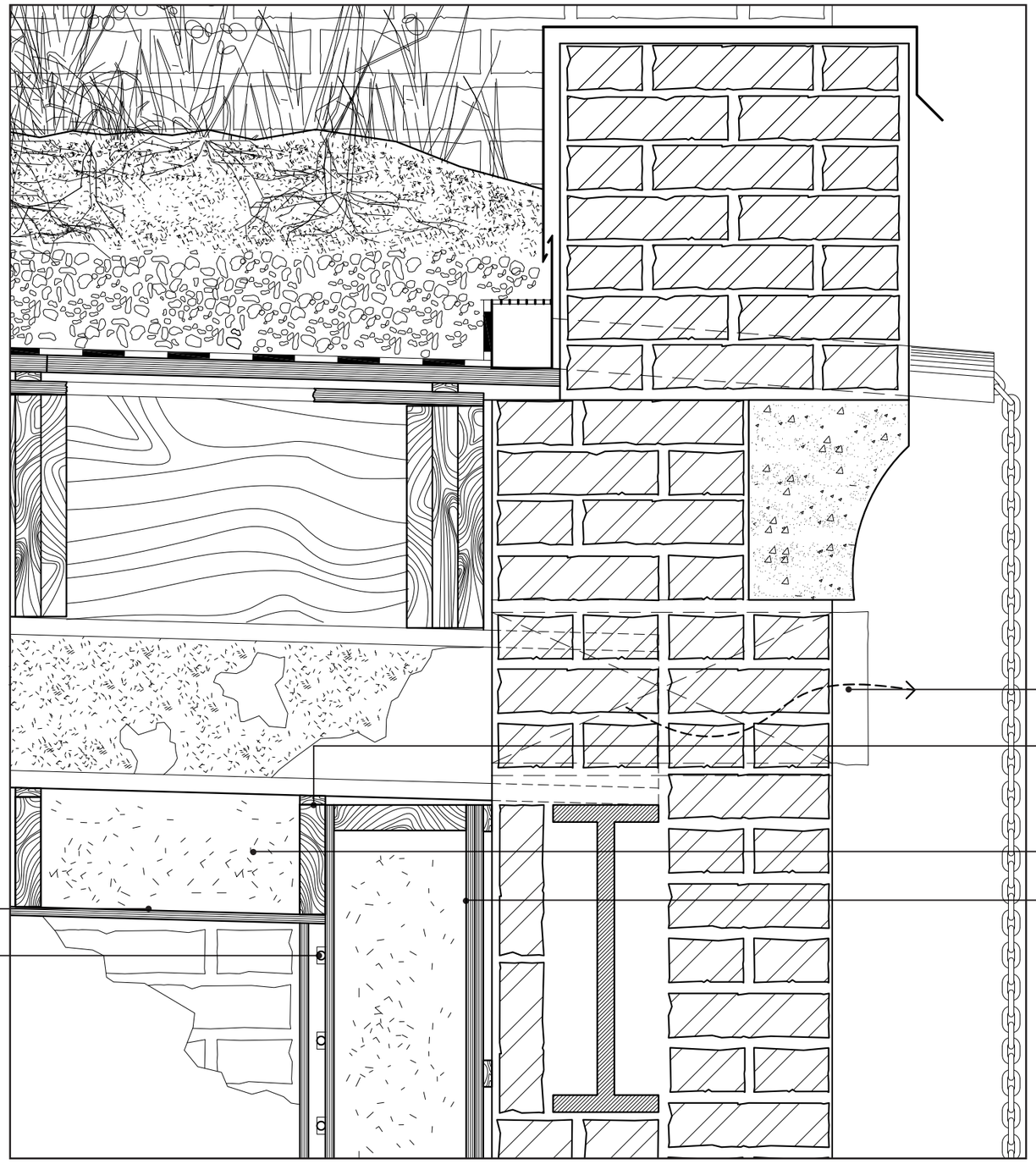


construction passages:
cornice and roof garden

A waterproof layer is introduced over a new timber planking protecting the ceiling from the outside. A reclaimed bricks cornice retain the addition of soil and plants reclamation.

The roof garden is a collection of the vegetation of the surrounding gardens. Copper pipes positioned within the brick cornice allow water to flow down to water tanks. Natural processes are manifested.

Roof section
scale 1:5



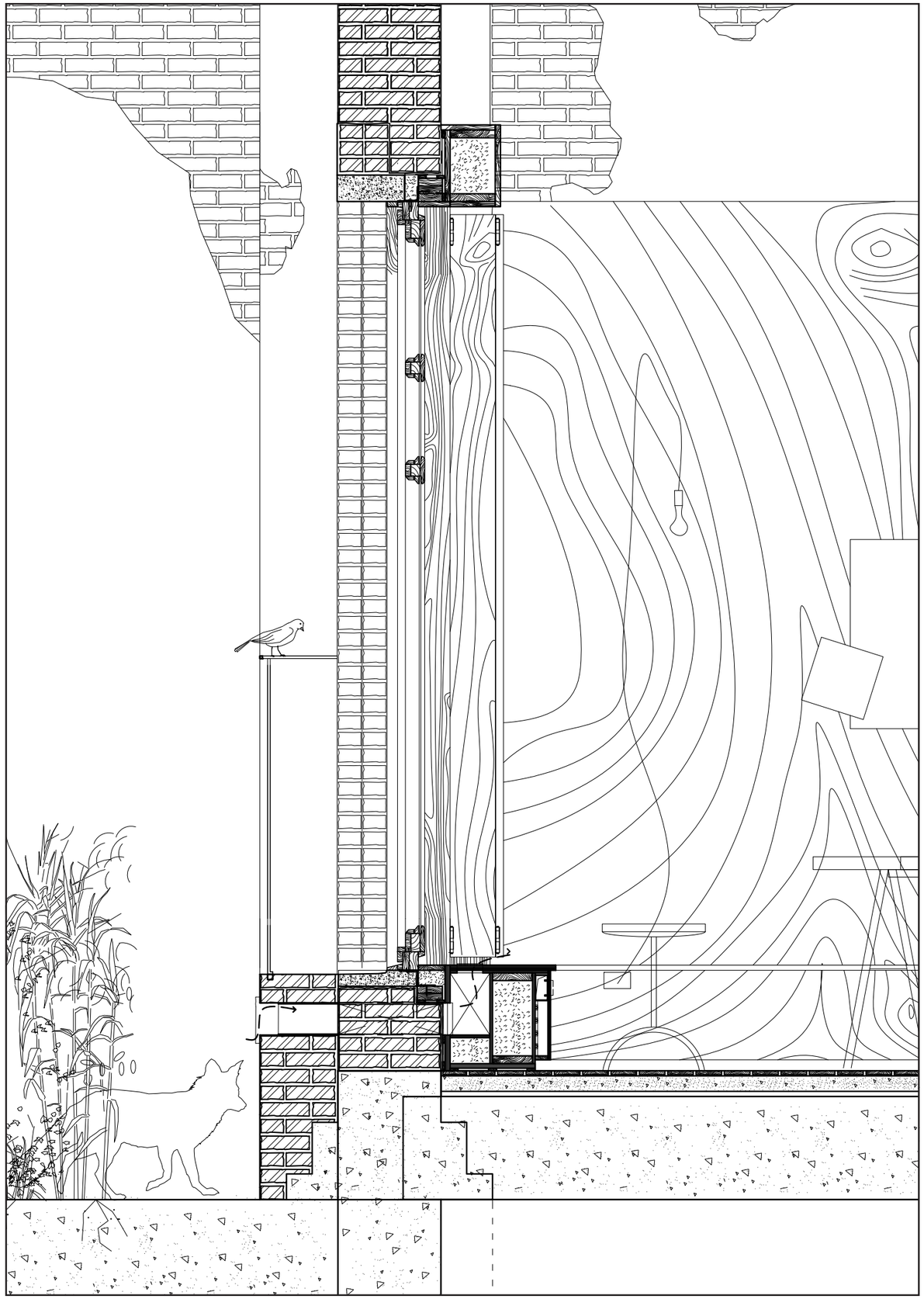
construction passages:

double ceiling

Eventually, in the more restored rooms, the ceiling is covered internally as continuation of the wall paneling system. Vents are opened on the existing masonry to naturally regulate internal humidity level.

Where the paneling arrive to protect the ceiling, the ruined ceiling is covered and isulated. This passage of the construction offer the possibility to completely restore certain interiors for collective events, discussions and suppers.

New opening section
scale 1:20

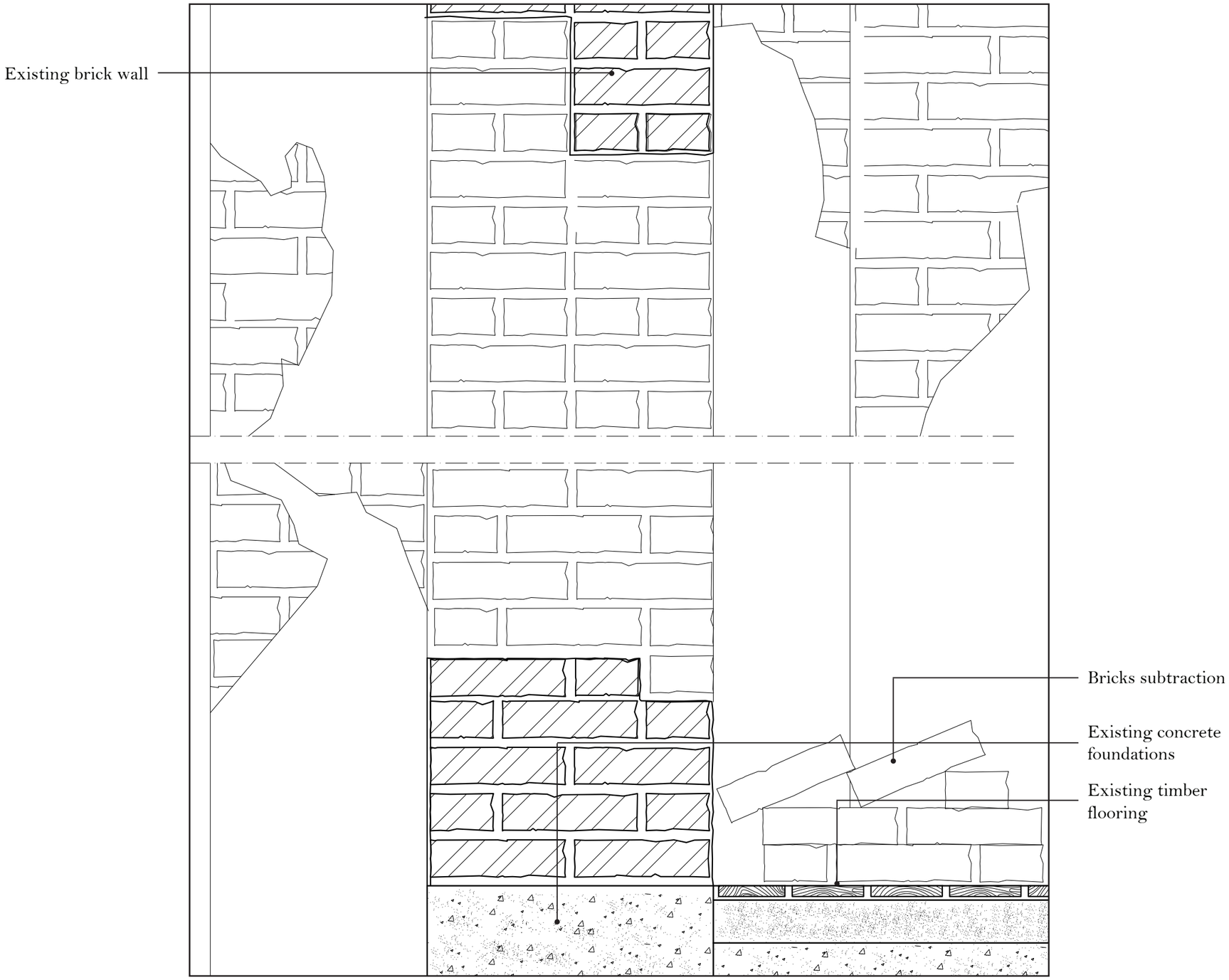


how to:
opening new windows

The dialogue between interiors and the garden is mediated by the opening of new windows. The construction passages are responding to the different levels of walls restoration.

The new window plinth is assembled with white painted reclaimed bricks. From the inner garden, the small balcony recalls the white porticos of the exterior.

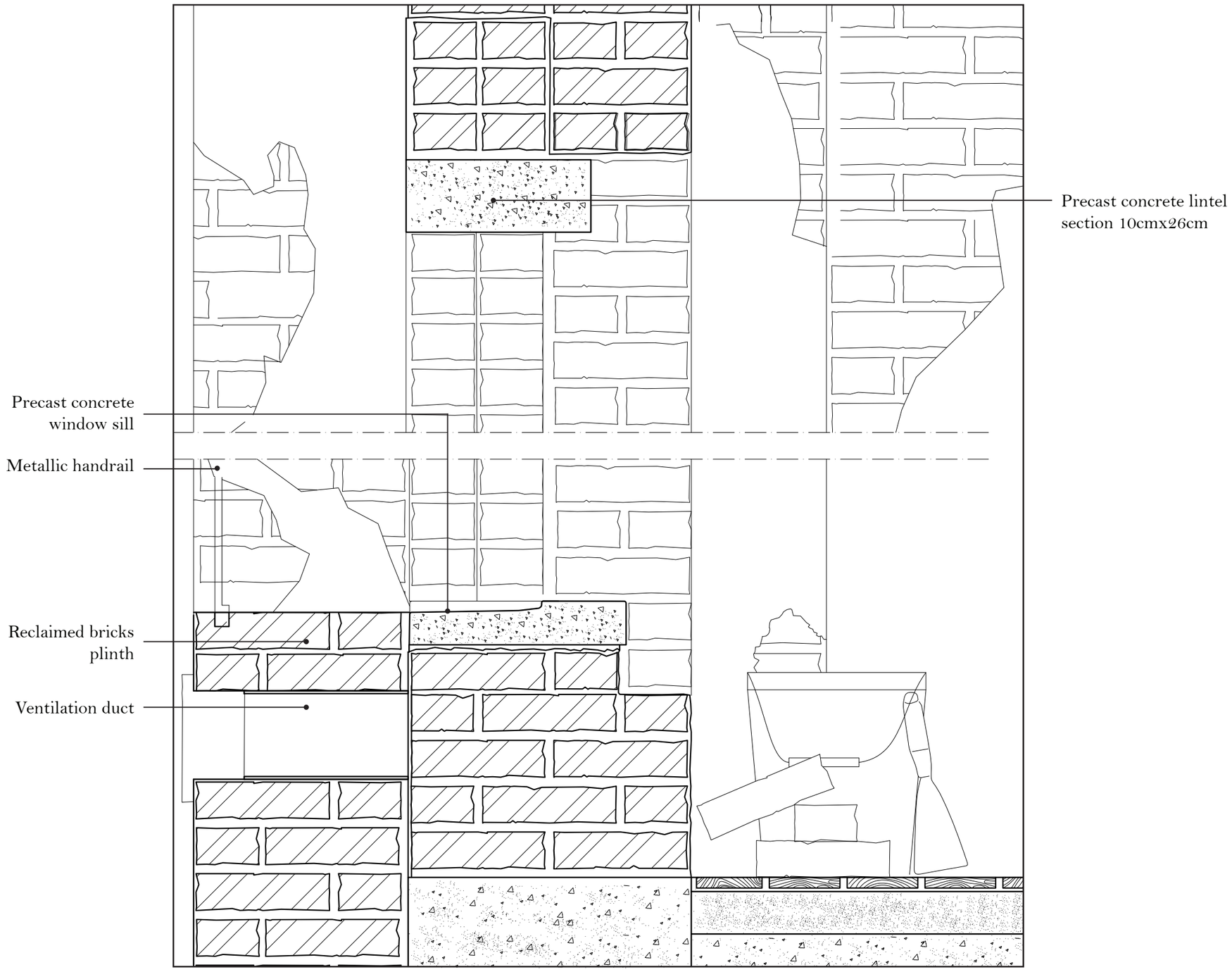
New opening section
scale 1:5



constuction passages:
bricks subtraction

Bricks are removed from the wall. The new opening connect the interiors to the inner garden.

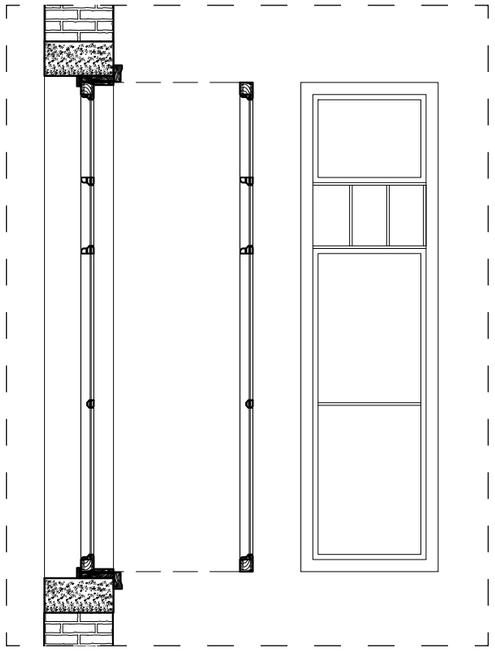
New opening section
scale 1:5



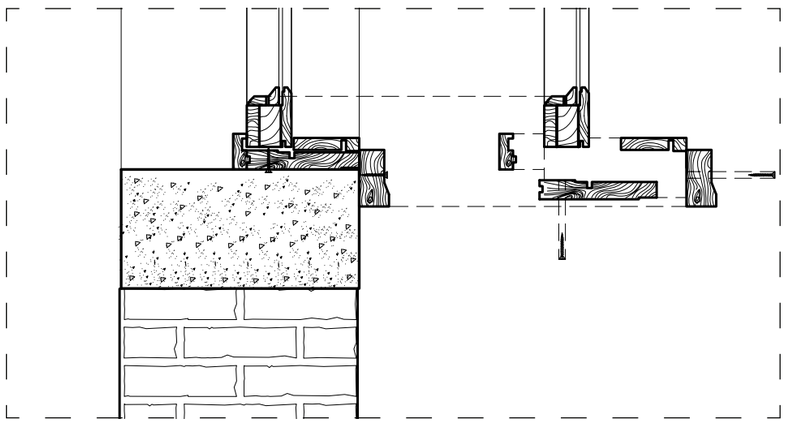
construction passages:
brick plinth

The reclaimed bricks plinth offer a small balcony.
Within the masonry, a canal is opened for ventilation.

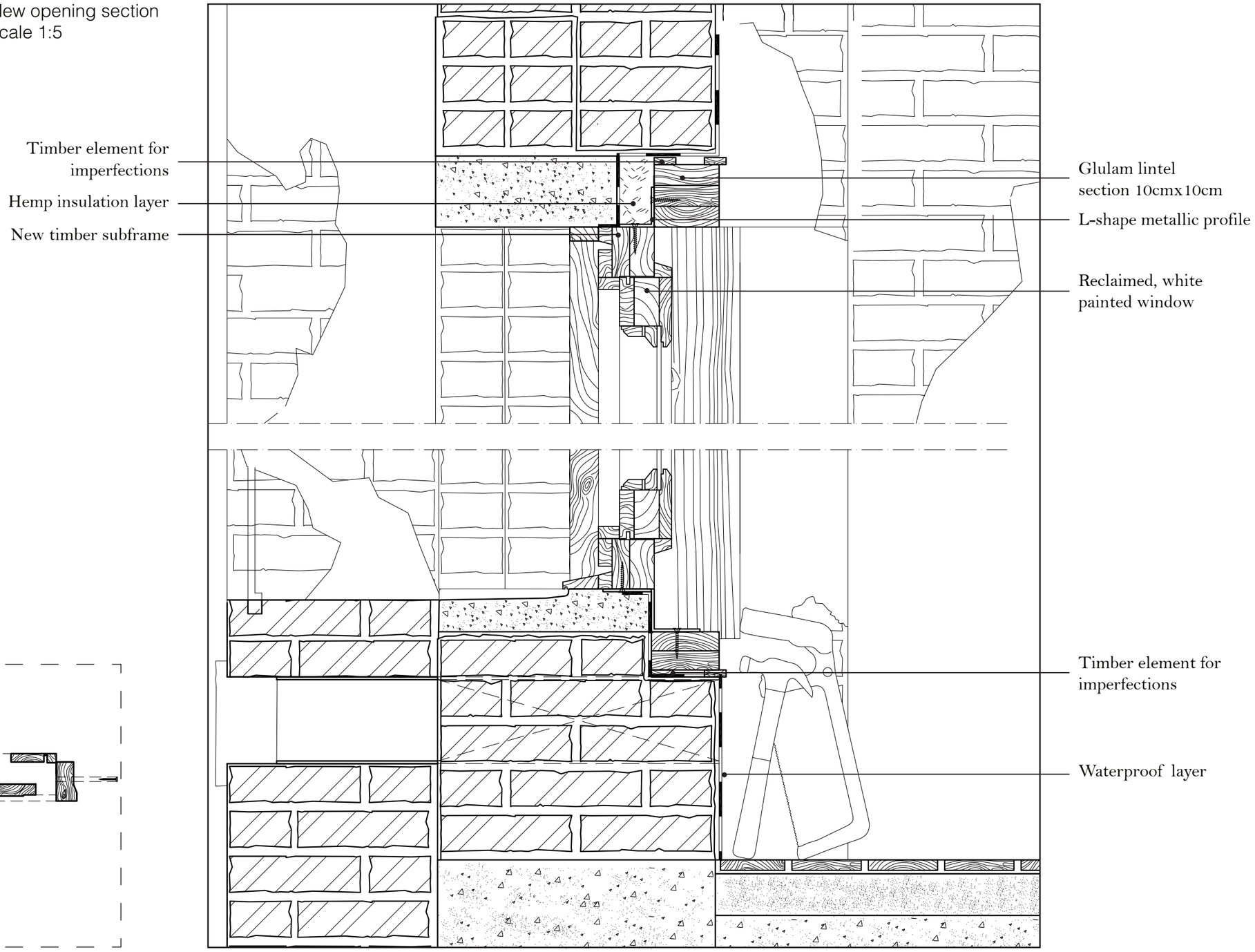
Old window displacement
scale 1:50



Old window displacement
scale 1:10



New opening section
scale 1:5

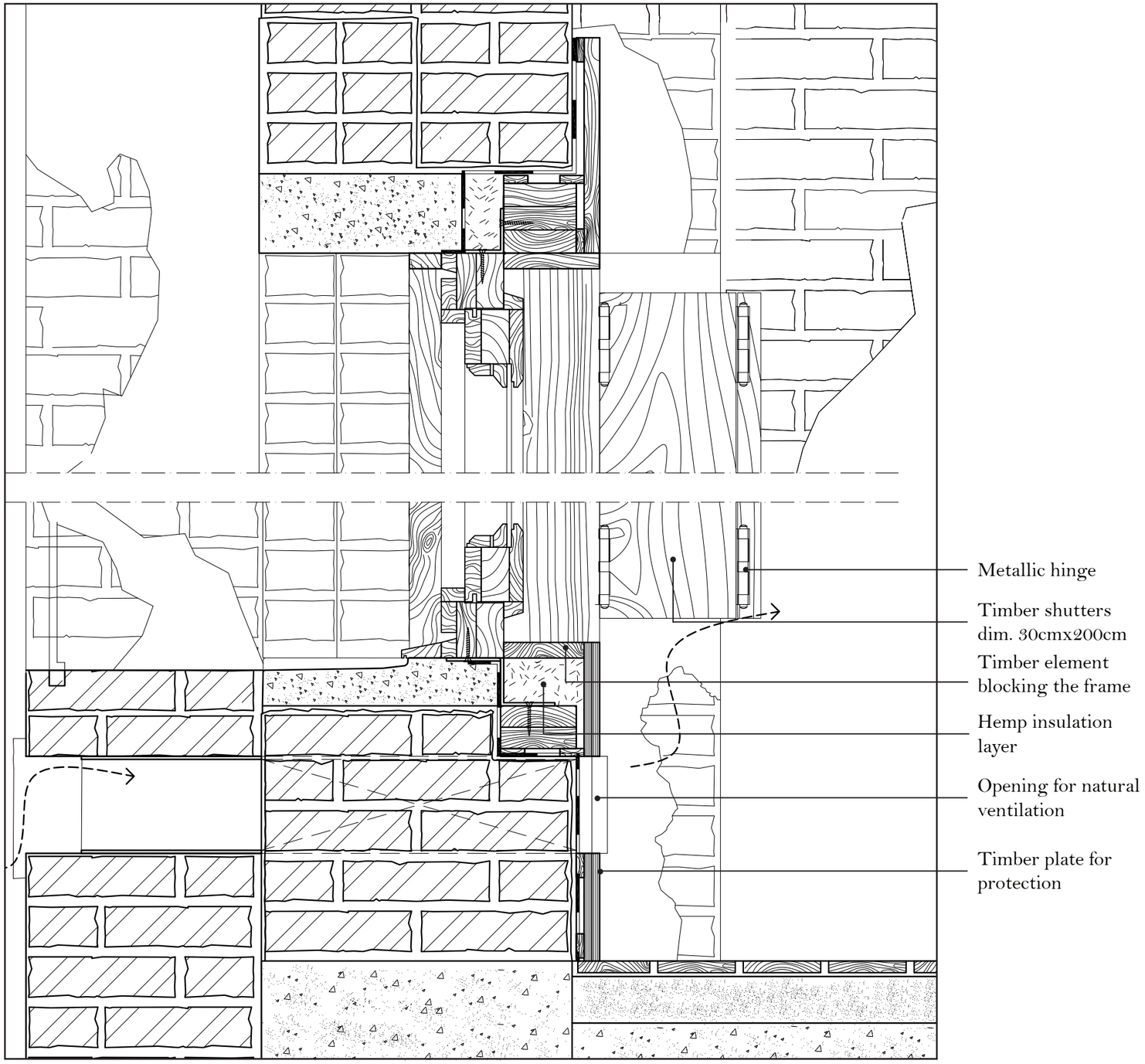


construction passages:

reclaimed window displacement

The old window is removed from its original position, restored and placed in its new location. The detail allow the removal of the frame for reparations and substitutions.

New opening section
scale 1:5

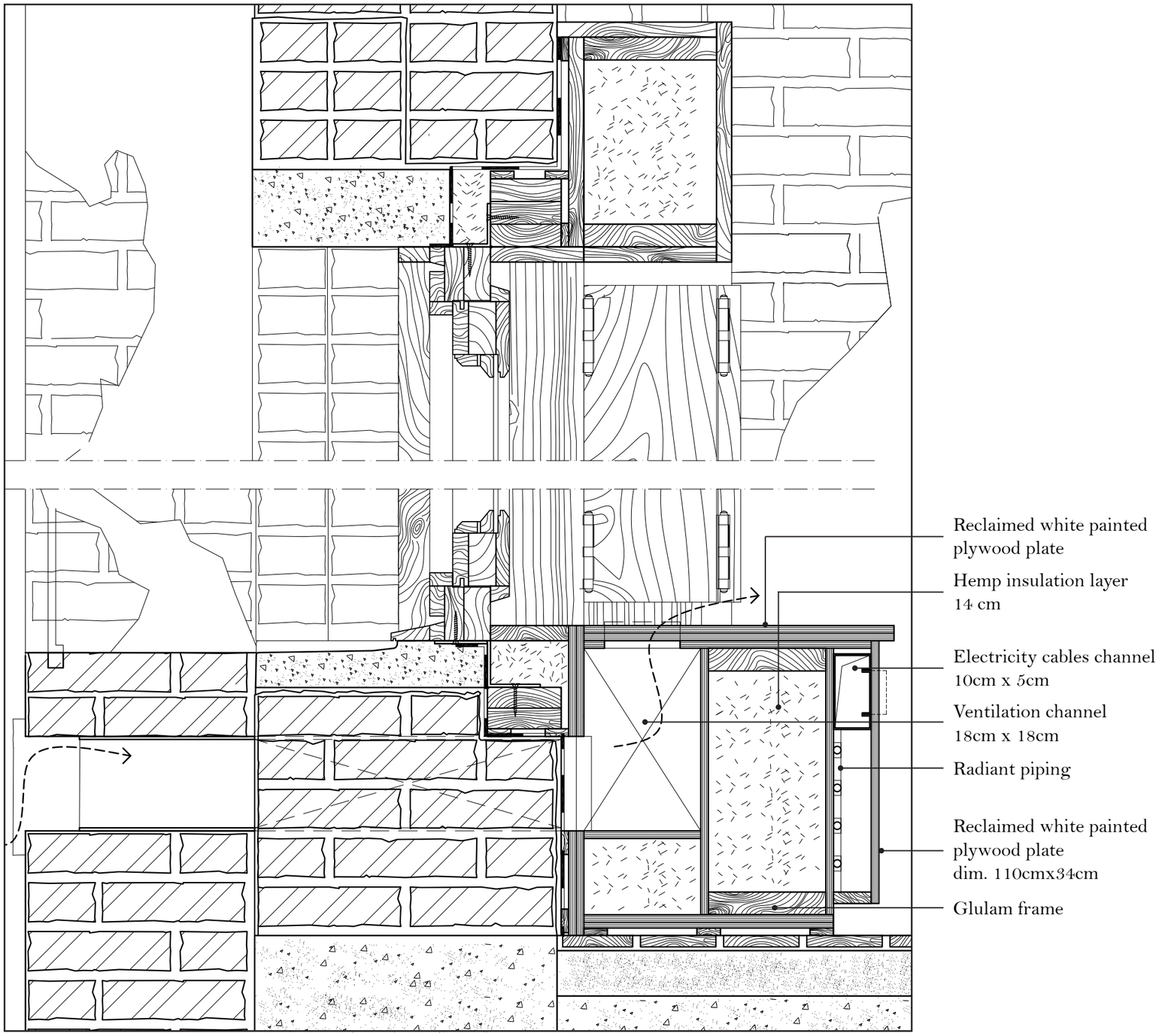


construction passages:
shutters

Timber planks blocks the frame and sustain the shutters. The shutters are timber board screwed to metallic hinges.

At this construction stage, the window can be used for non insulated interiors with just wall painting. Here the space is an in-between interior and exterior with the windows communicating with the central garden.

New opening section
scale 1:5

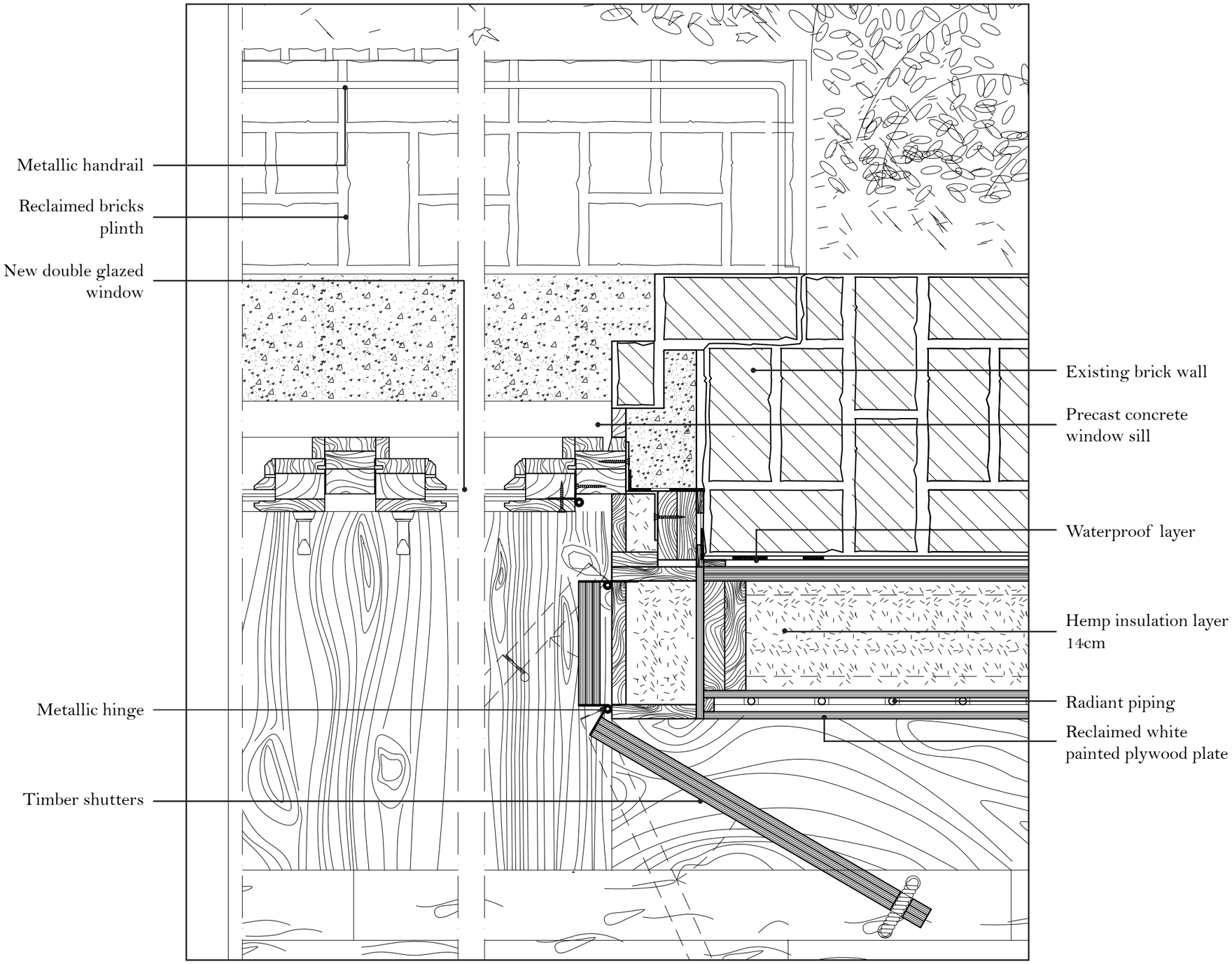


construction passages:
insulation and technical layer

Eventually, insulation and technical ducts are added. Ventilation and electricity are hidden behind the plates, leaving floors and ceiling untouched.

The opening is integrated in the system of reclaimed timber plates. It does not appear anymore as an isolated element. The wall offer a small bench for positioning objects an flower pots.

New opening plan
scale 1:5



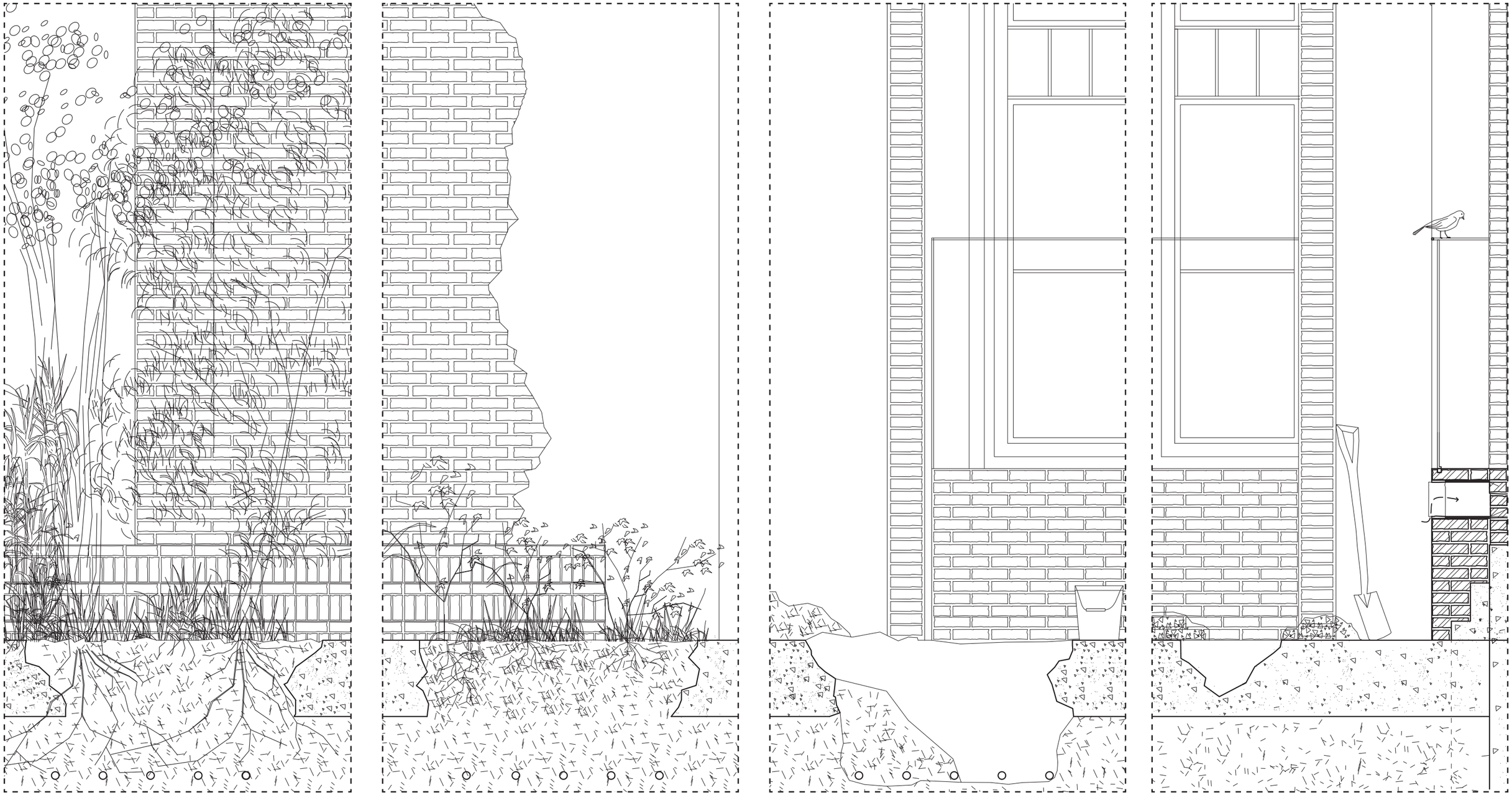
construction passages:

double wall

In plan, the panels protecting the wall are jointed to the frame protection and insulation.The reclaimed window is here replaced by a double glazed, more efficient one.

In rooms that are completely restored, the wall appear as a juxtaposition of reclaimed and new panels where the new double glazed window is integrated. The window remain the element connecting the interior with the garden and the ruination of the building.

Central garden section
scale 1:20



10-50 years

1-10 months

1-10 weeks

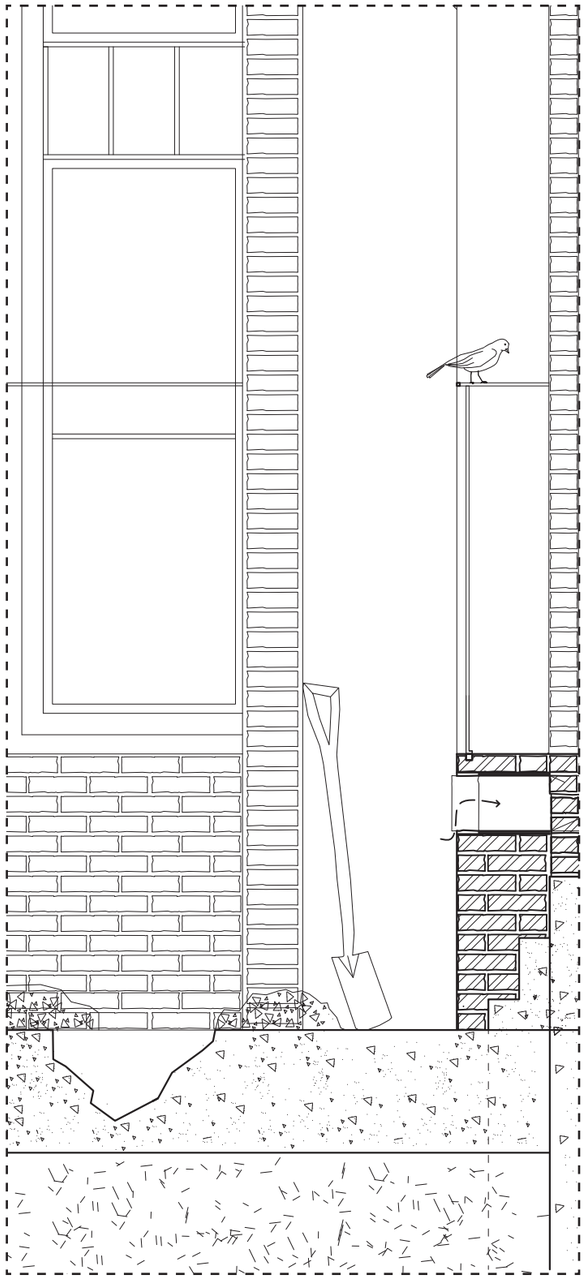
1 week

how to:

planting the inner garden

The steps to appropriate the central hall as a garden describe a gradual process. This happens in different spatial and temporal stages.

Central garden section
scale 1:20



1 week

construction passages:
concrete subtraction

Initially the concrete slab of the central space is drilled to create holes and reach the underlying soil.

Central garden section
scale 1:20

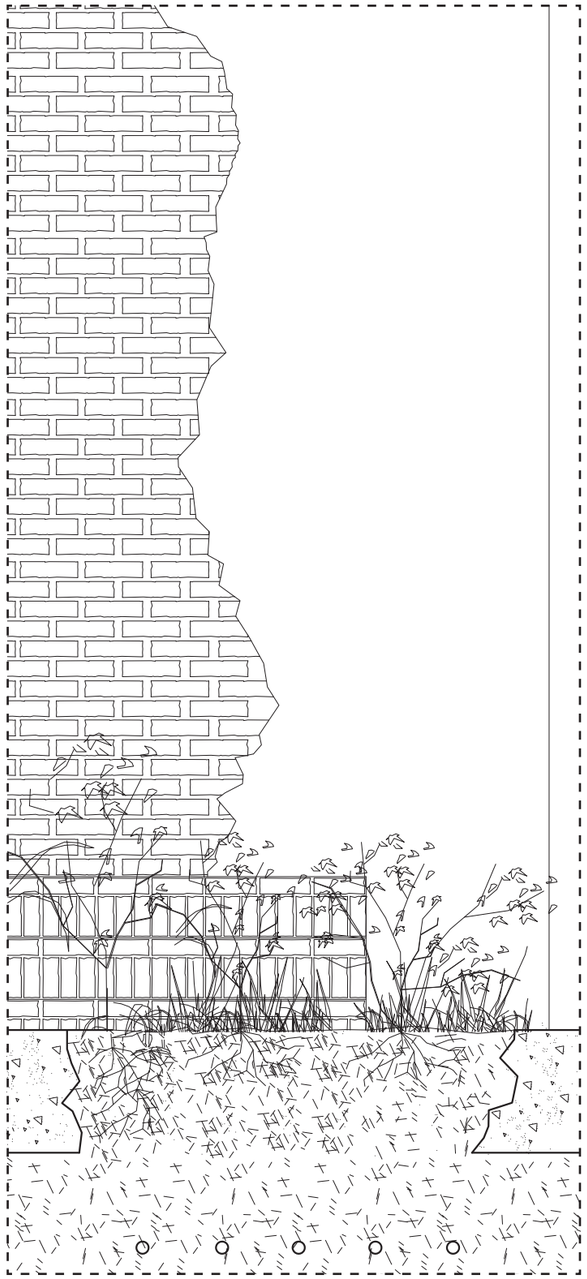
1-10 weeks

1 week

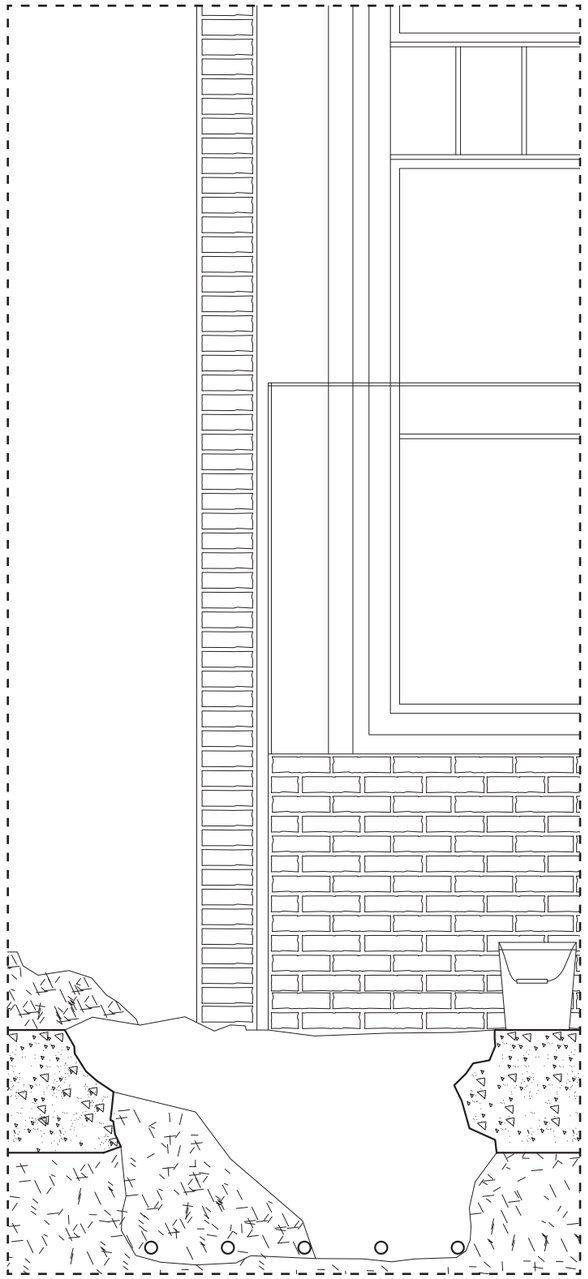
construction passages:
collectors and young vegetation

Geothermal collectors are positioned 1.6m deep. Holes are then filled with new soil and young vegetation is introduced.

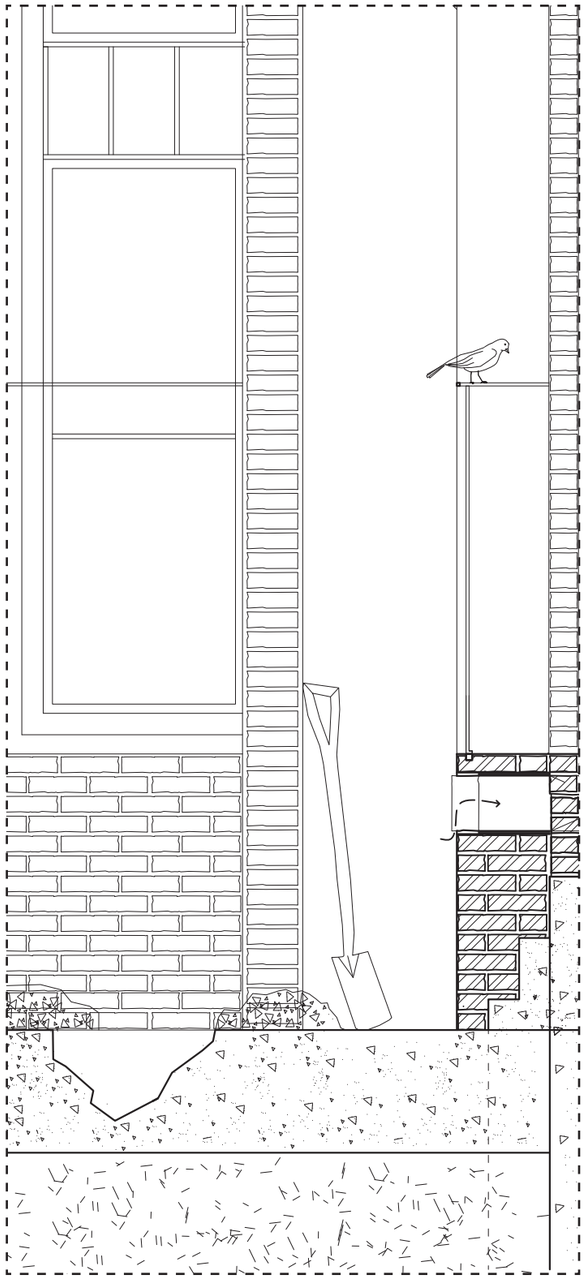
Central garden section
scale 1:20



1-10 months



1-10 weeks

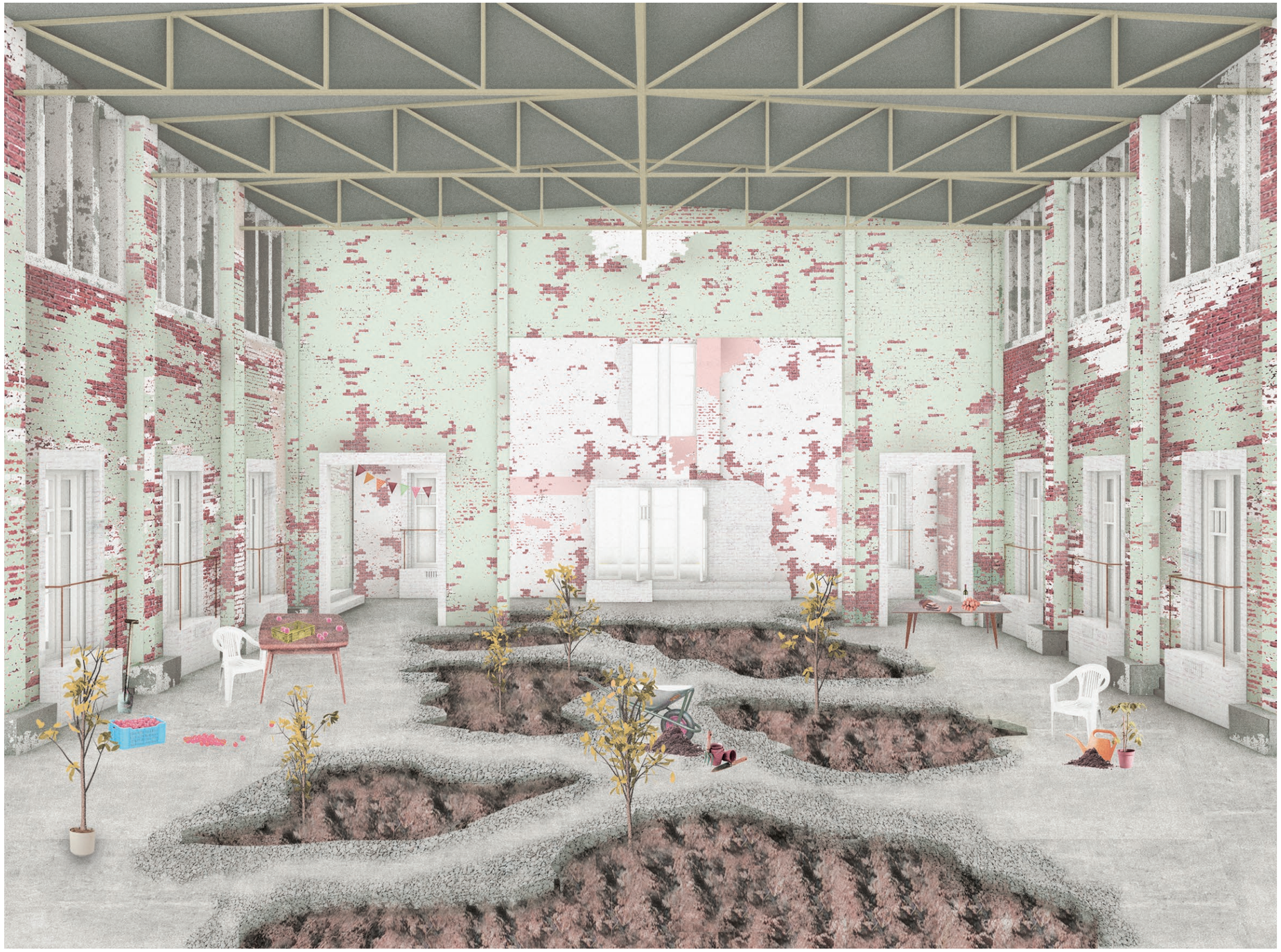


1 week

construction passages:

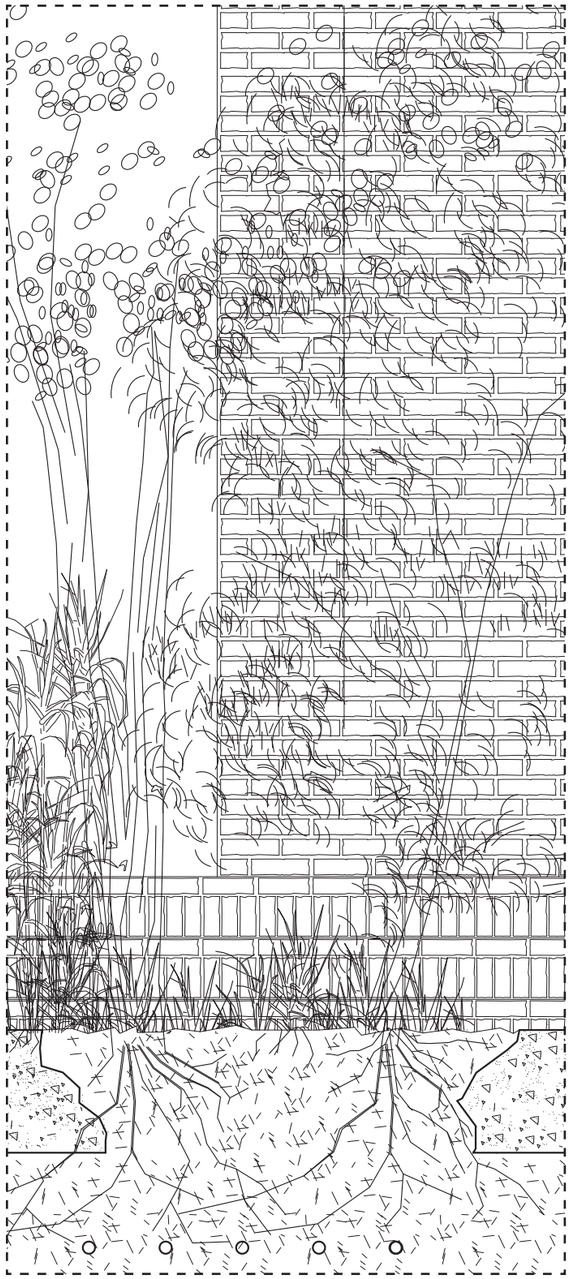
low vegetation

New plants are introuduced in the holes.The slab is reduced in fragments by the proliferation of roots and grass begin to appear.

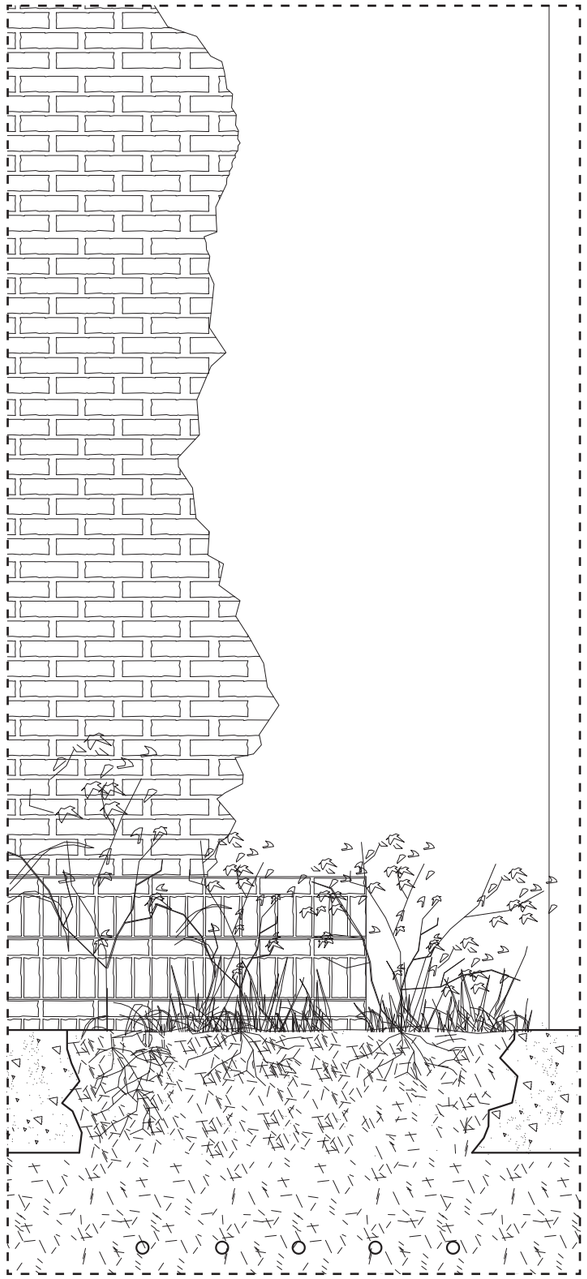


The central hall constitute the heart of the collective participation in the reclamation of the building. The community is actively involved in creating holes, planting vegetation and taking care of the growing garden.

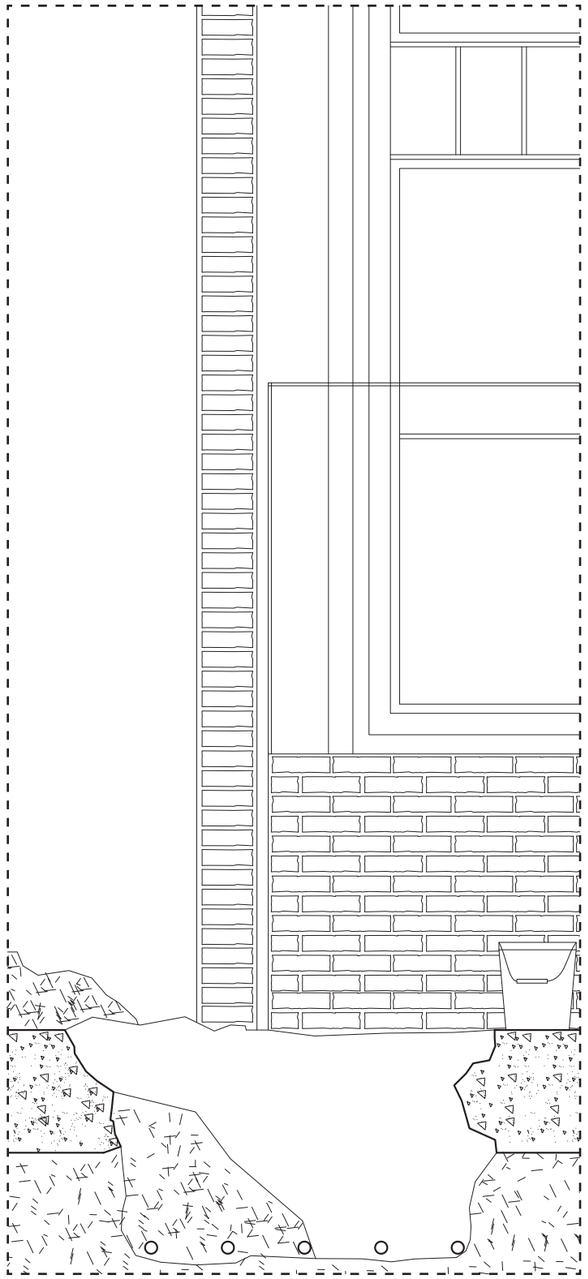
Central garden section
scale 1:20



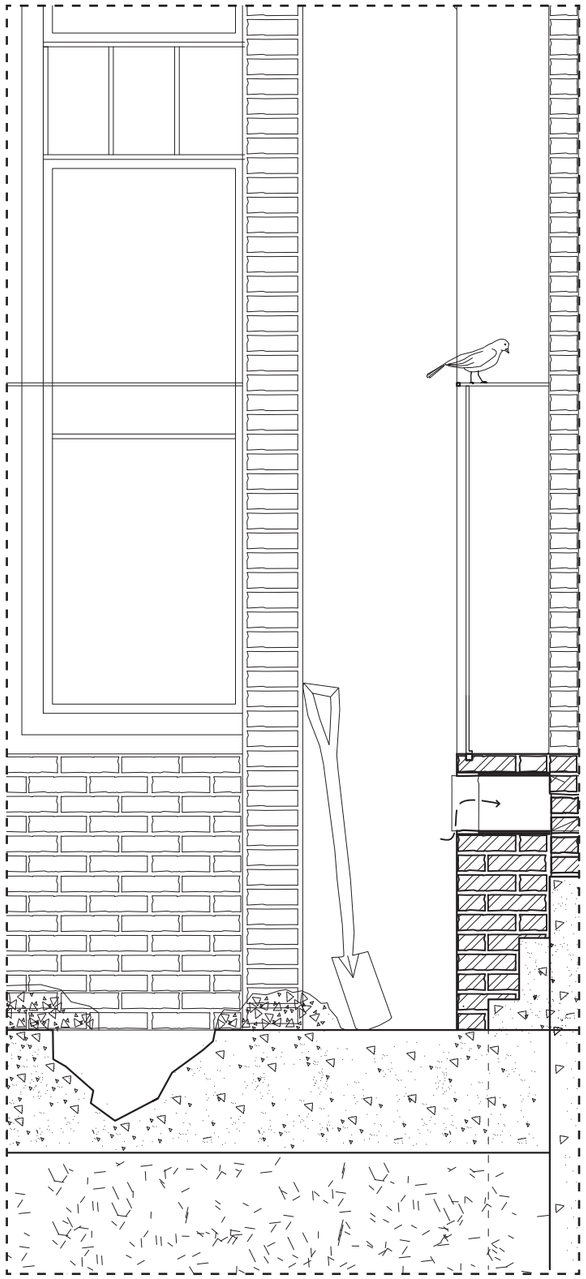
10-50 years



1-10 months



1-10 weeks



1 week

construction passages:

forest

In 10-50 years, the vegetation has become denser and thicker towards the heart of the garden. Here, communal activities have left space to the proliferation of natural life.

The central garden is the expression of the dialectic enhanced by the project. A coexistence of ruination and cautious restoration, and a community with the natural landscape that surrounds it.

Conclusions

Where does the balance lay between introducing new ideas and where therefore leave things to develop autonomously?

Architect and community

The project simply provide a methodology to restore spaces.

Asking how the architectural practice can respect and collaborate with an existing social infrastructure.

The role of the architect becomes something more than a designer of spaces. It is engaged in a symbiotic work with a community, negotiating compromises, elements to preserve and elements to change.

involvement of community

Vacant lots individuation and study
The system is adapted to the site specificity and constraints.

Draft project proposal

Individuation of mediation figures (local community representatives i.e. priest)
Mediation figures help spreading information, involving the different inhabitants social groups. Collective decision-making groups are created among the involved inhabitants.

Collective design discussions

restoration works

The site is purchased by local associations and volunteers in the form of a CLT.

Workshop components collection and restoration
Material is collected from the building, catalogued and restored.

Building workshop
Bricks elements, hemp insulation, panels and windows.

Workshop with first cycle of planting

care and other sites reclamation

Components are repainted every two years

Workshops organized to maintain the garden

Members of the community are invited to locate other abandoned sites to be reclaimed with the same modalities.

The process starts again...

Getting the land
Vacant land acquired through a Community Land Trust.

Grants coming from municipality and charities.

Members and decision groups
Land trust is driven collectively by inhabitants who decide to become members.

Land trust role is keeping the prices of spaces affordable.

Civic role
Test project serves as reference for support and resources to other transformations.

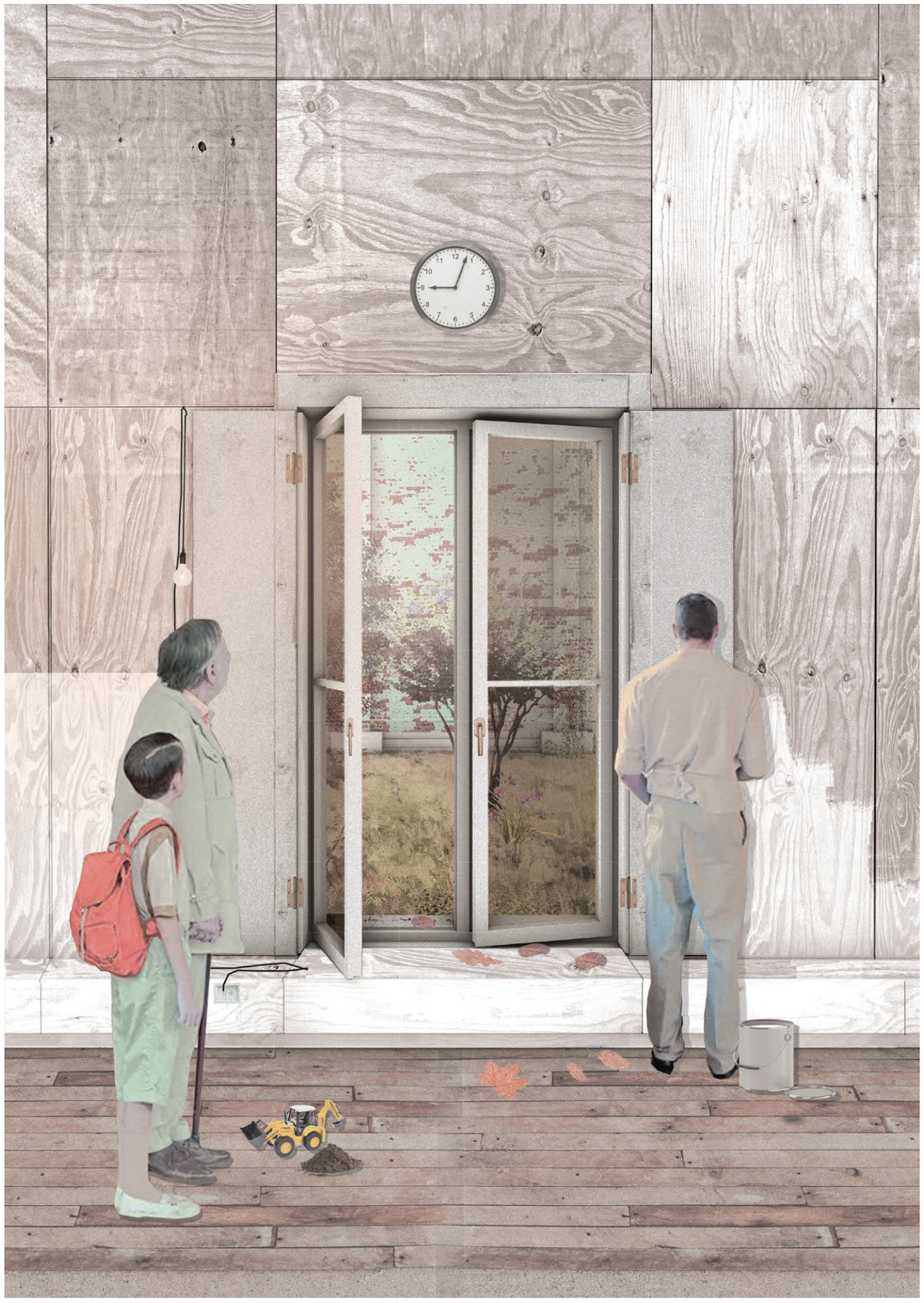
Restoring buildings for community facilities, gardens and workspaces.

Benefits
Involves local enterprises, supporting local economy.

Building jobs and training schemes locally.

how is the construction negotiated?

A long-term dialogue with the inhabitants needs to be developed. The help and support of mediation figures, such as local representatives of community build collaboration. After founding provided by municipality the project will involve local businesses offering jobs opportunities.



Raising awareness on local resources and skills. The inhabitants are called in taking care of structures rather than demolishing them. Preserving forgotten specificities.

Social Palace

What effect can have the introduction of a civic realm in a place where this has been absent for decades?

Can the notion of public palace be shared between the members of a community rather than being provided by someone else than the community itself?

An institution. With the aim of offering legitimacy to people's own agency. The project will constitute a reference point that will support restoration activities and local investments in the town.

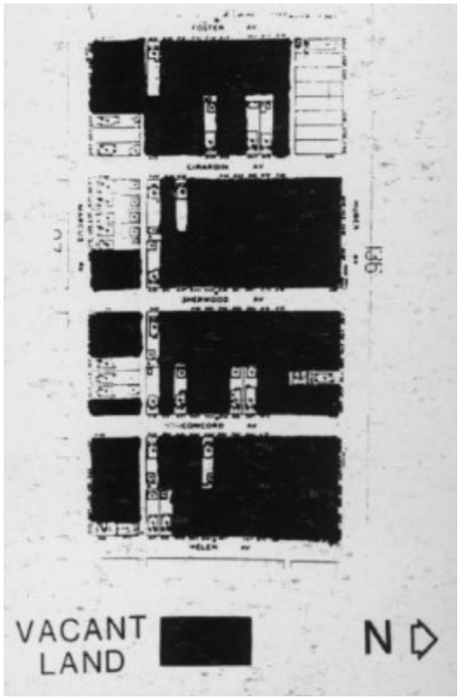
Company Town

The project also aim at opening a rediscussion of values giving new meaning to life in a company town.

Moving the attention to those that aim at gently accommodating a dialogue rather than the imposition of a logic above the others.

an example for other suburbs: an alternative to erasures

The project position itself within a wider discourse on shrinking worker's suburbs. Waterchei, in fact, could serve as an example for many other worker's towns where unemployment and urban decay are the consequences of the dismission of industrial activities.



In the shrinking suburbs of cities like Detroit, erasure and unbuilding has became the major architecural activity. This often happen by ignoring the positions and instances of the local inhabitants.

In the first scenario, if no action is taken to stop abandonment, the future of this and other company towns is that of embracing the shrinking, to make space for the forest and erasing vacant buildings.

Demolitions will became the major architectural and economical activity while the forest will make its space in the empty plots. Nature will dissolve borders and streets.

The project invite inhabitants to look beyond the present state of decline of their town. Asking for a more empathic attitude towards vacant parts of the town and legitimizing people's action in taking care of the place they inhabit.

Negotiating with the inhabitants to discuss the parts that need care and the parts that can be left to nature. Where to welcome people's activities and where to let wildlife in. Acting as a gardener with modest and huble changings.

Buildings are not demolished, but transformed together with the users. Balancing abandonment and reconstructions within the town.

Perhaps new inhabitants will join. People interested in contributing with experience to the garden's framework, or simply families moving for necessity.

Transforming the image of the town from that of a problematic neighborhood to a virtous example of living a more sustainable relationship with nature.

Thank you!