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Red Star Line
Stad Antwerpen



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Introduction

“Nothing distinguishes memories from other moments: only later do they make themselves known, by their scars” Chris Marker, La Jetée, 1961

The central theme of this project is Memory. It asks us to remember and reflect on previous human endeavour and memories passed-on and encourages us to engage emotionally with our culture, our identity and our place in the world. Through the medium of architecture and the act of construction it is possible to provide a framework for these memories to be re-lived and sensed through space. By debate and trial it is possible to use these memories to further our understanding of the present. In this project we explore an open-ended architecture and an ambitious programming strategy within the setting of a piece of city as found, both lightly touched and confidently re-made.



View of the Red Star Line buildings from Rijnkaai

Analysis

The Eilandje

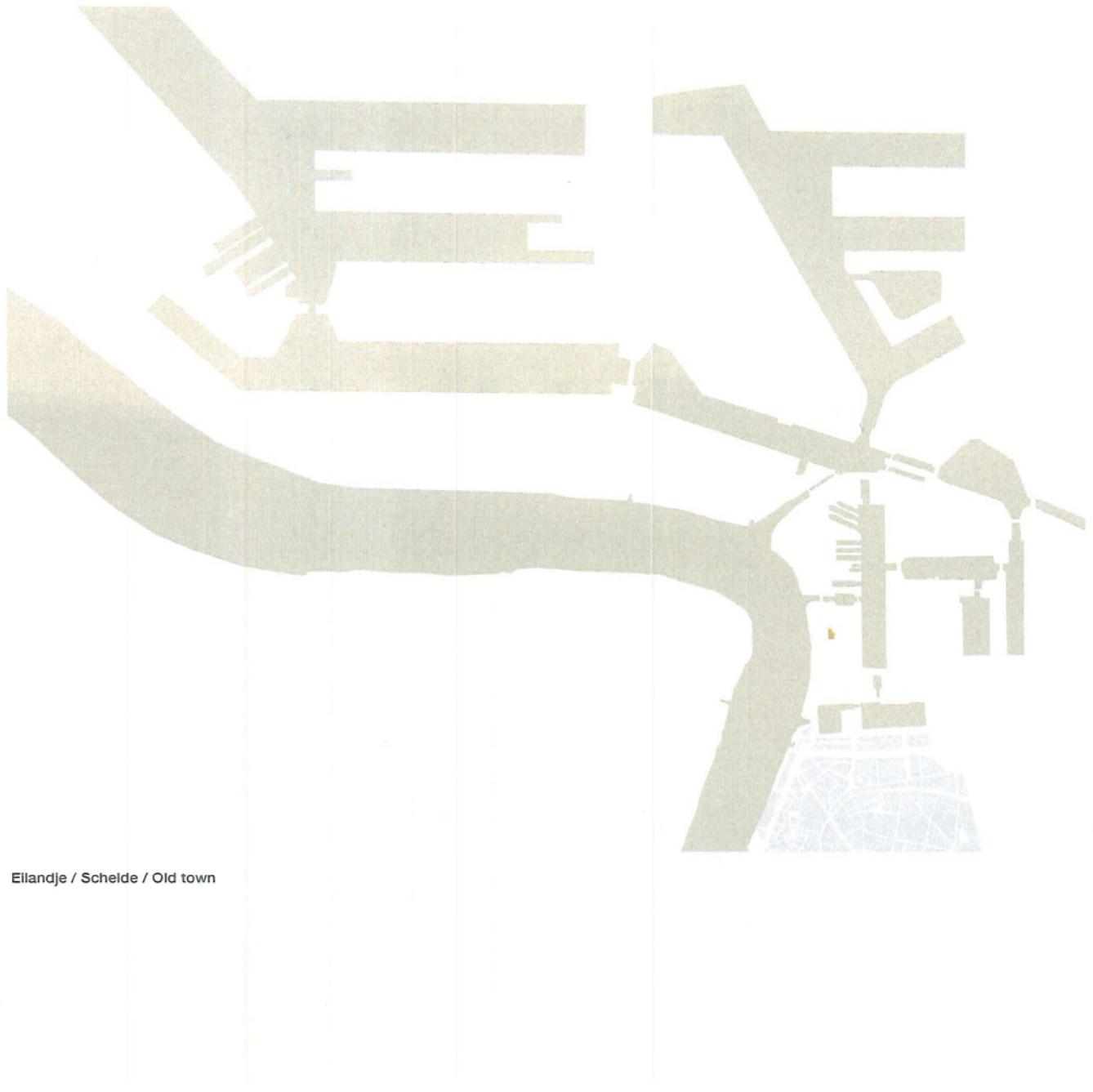
The 350m long by 200m wide Eilandje sits at the threshold of the medieval centre of Antwerp and the greater harbour district to the north and west. Its location at the elbow of the River Schelde creates another threshold with the water, the river and the sea. The atmosphere of emptiness and of dis-use experienced by the visitor to this area today is heightened by its clear significance in previous centuries as a staging post for trade and transportation. Industrial archaeology scattered along the river edge remains as a ghost to a period of intense activity involving both travellers and citizens of the city.

Antwerp owes its origins to the water and its wealth to the advantages brought by the sheltered River Schelde meandering so far inland so as to increase the speed of the distribution of goods into mainland Europe. Understandably, the harbour has held a fascination with citizens and visitors alike providing as it did, a livelihood to some and a passage to a new life to others. In this way the harbour and the river edge in particular have provided a setting in which city life unfolded and this continues to be reflected in the more recent attempts to regenerate this part of the city.

It seems a consequence of the distance between urban centre and industrial district that such developments rarely achieve a seamless connection between their parts (think of Liverpool or Rotterdam) but what is possible is to identify the two areas as distinct environments to an expanded cosmopolitan centre.



Eilandje / Schelde / Old town



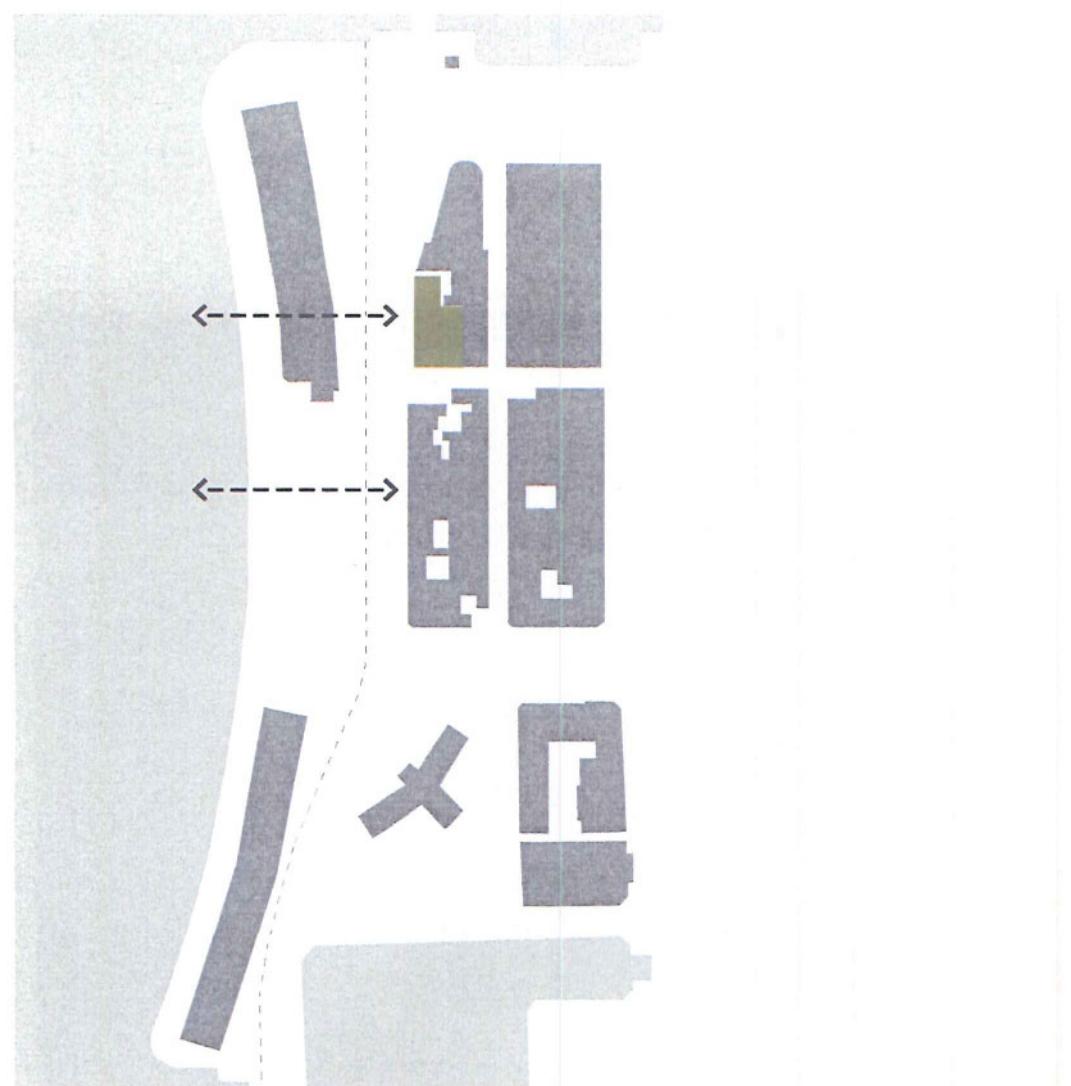


Diagram showing relationship of RSL buildings to river and quayside

Analysis

Masterplan

Sola Morales's masterplan of 1993 proposed a densification of the Eilandje within the existing urban pattern of large blocks and orthogonal streetscapes and the introduction of the 'cultural route'. Beginning at the new city archives (Sint Felixpakhuis), the MAS (Museum aan de Stroom) forms a strong vertical axis. The route is a diagrammatic urban proposal to create linkage between the two parts of the city and it also exploits the possibilities of employing signature architects to give legitimacy and status to the project (Hans Kolhoff, Richard Meier, David Chipperfield, Neutelings Riedijk and Gigon Guyer for example). In counterpoint there is another architectural programme of restoration and the alteration of existing grand buildings such as the city archive by Robbrecht and Daem and the new studio for fashion designer Van Noten. The restoration of the Red Star Line (RSL) buildings clearly relates to the latter programme and holds the potential to restate the significance of an industrial heritage.



Kattendijkdok



MAS-museum

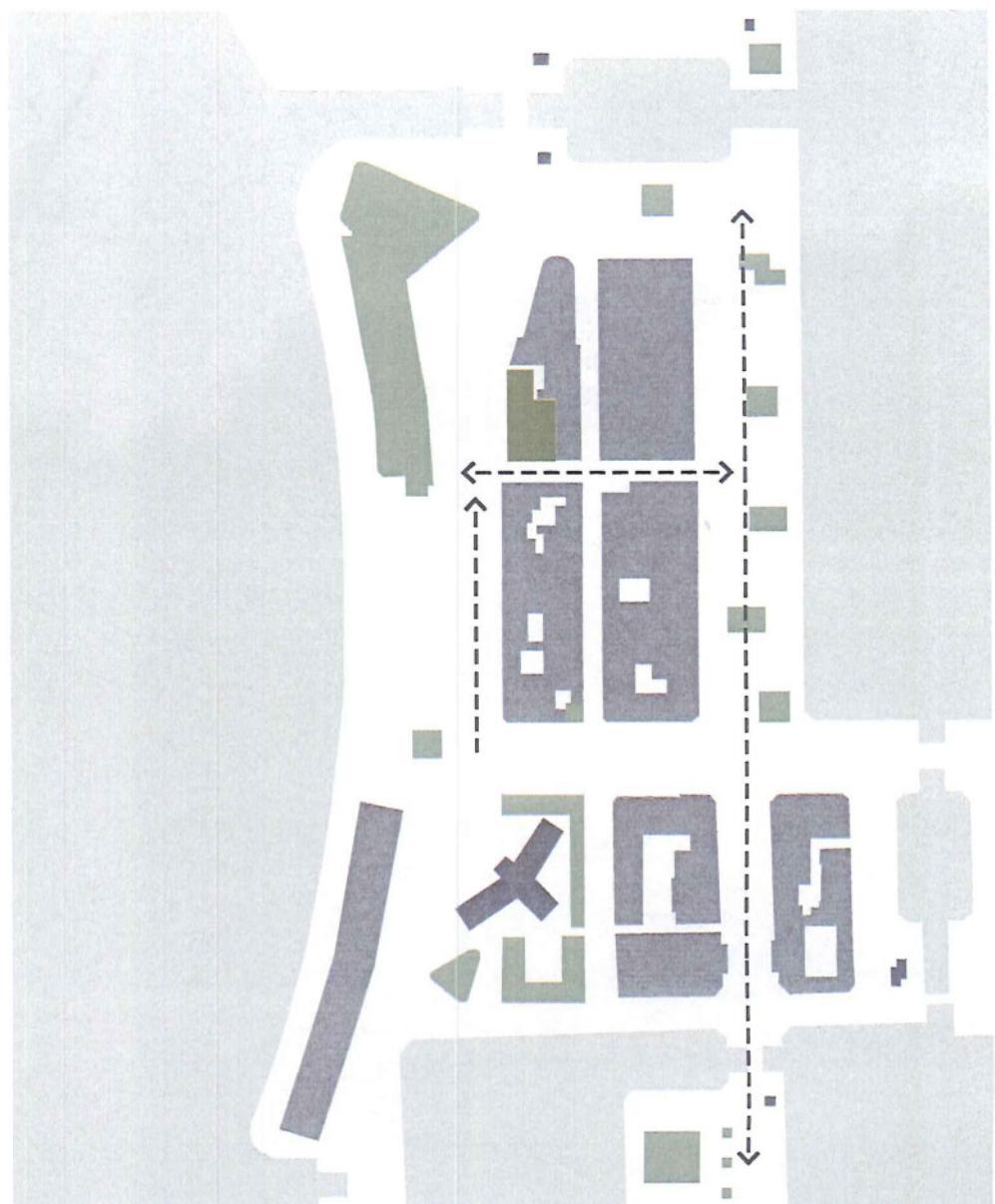
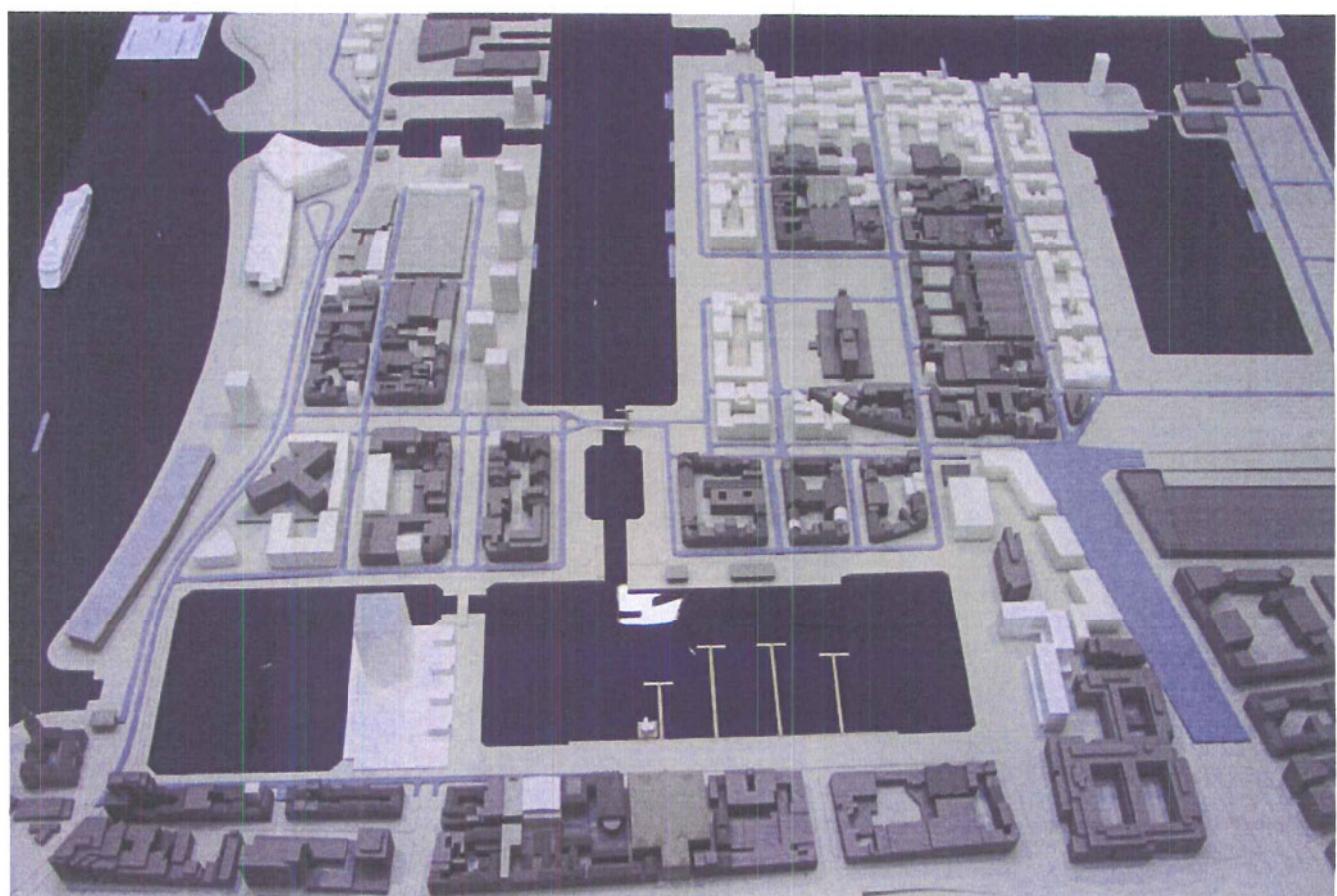


Diagram showing relationship of RSL buildings to cultural route



Model of the masterplan



Masterplan of the Eilandje site

Analysis

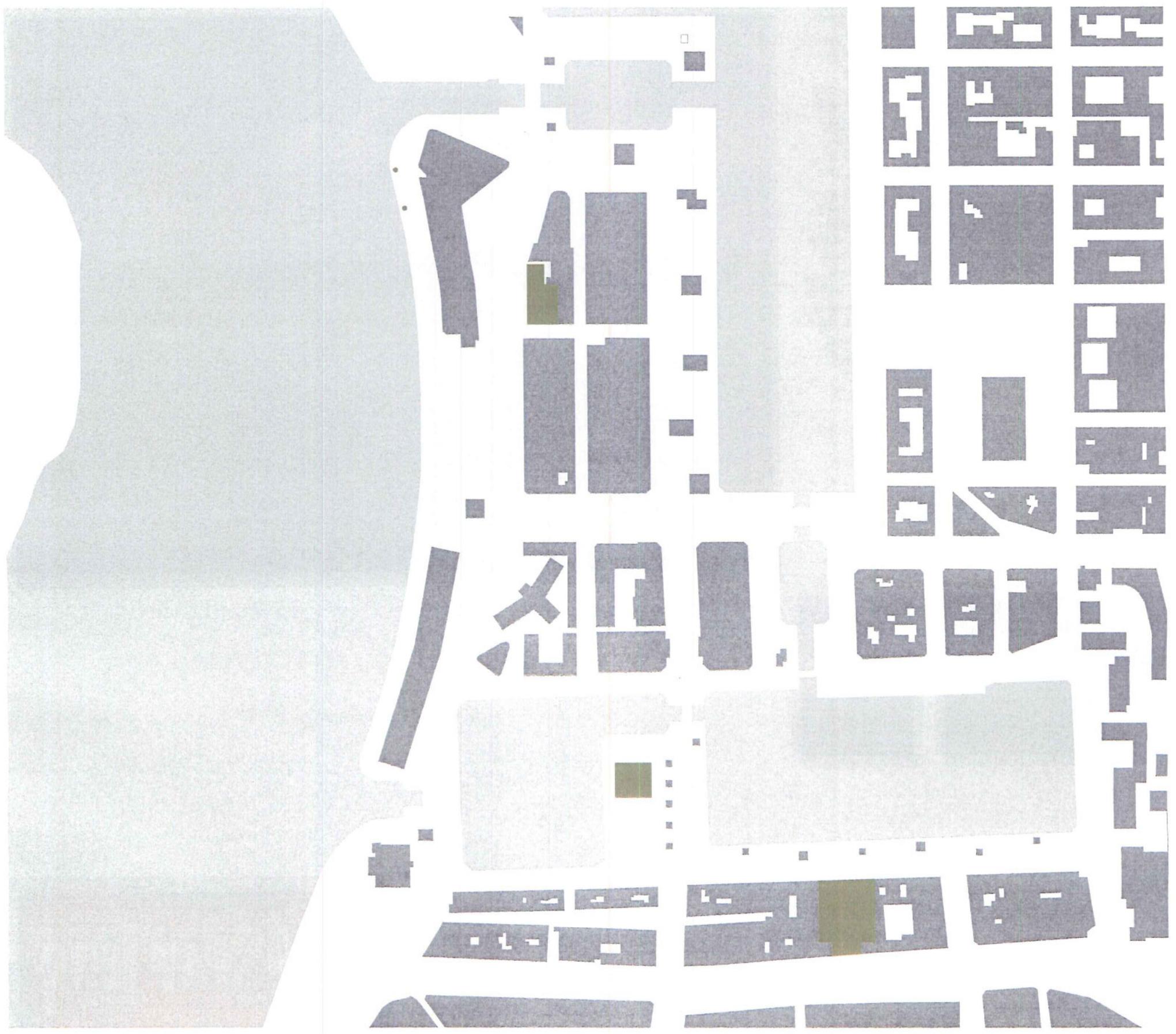
Memory sites

The planned cultural route running from the MAS directly to the northernmost point of the Eilandje leaves the RSL peripheral. Despite the small distance from the route and the legibility of street layout it is unclear how significant this relationship will be in practice. It is perhaps just as likely that the relationship between the RSL buildings and the proposed mixed use scheme (replacing the monumental warehouses of the Waagnatie) will be stronger, achieving a greater level of visibility and a more favourable orientation towards the river.

As one of four memory sites within the Eilandje (City archive, MAS and Quayside) the RSL complex is seemingly impoverished in relation to the scale of the Sint Felixpakhuis and the iconography of the MAS. However there is significant value in its ability to project the memory of a former use. Unlike the Quayside whose two bollards remain as highly evocative material witnesses to former action, the RSL buildings have been stripped of their parts and remain as shells. It is difficult as a visitor to understand the historical importance given to them by the city of Antwerp without first hearing of their intense use over a short period of history (between 1922 –1937). Once the process of sanitation is understood the status of the buildings is transformed in the imagination and a greater visibility is achieved.



The RSL buildings as a modest landmark



Four memory sites on the Eilandje

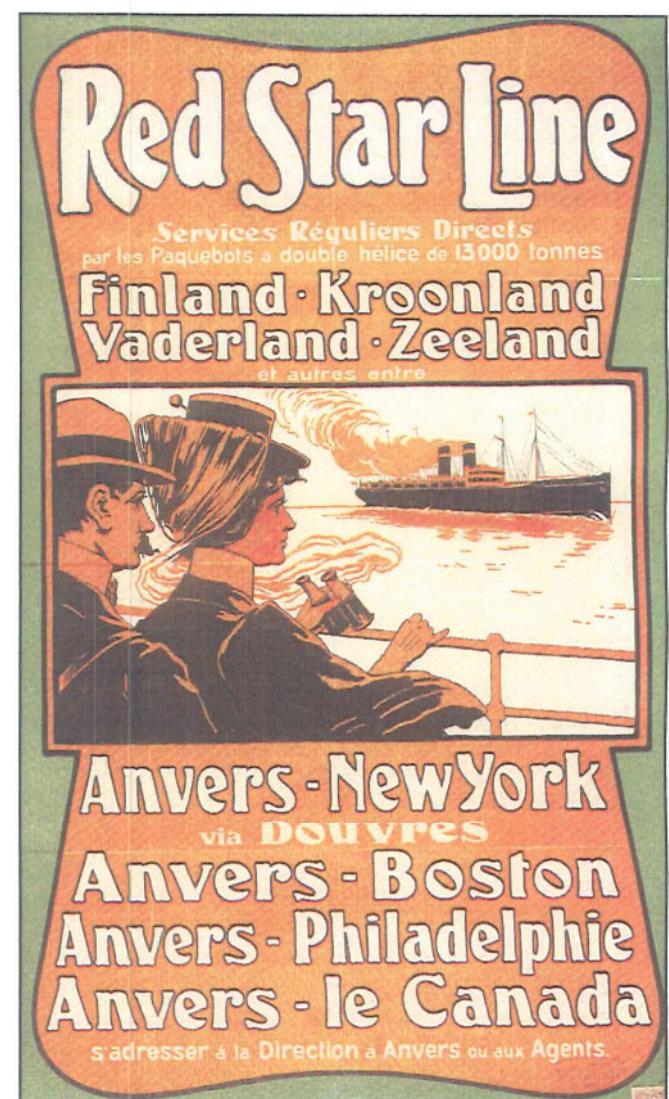
Analysis

Emigration

As a staging post for the migration of people from mainland Europe to the New World Antwerp's character is intertwined with emigration and the emotions associated with it. The impact of the processes involved and their visibility can be understood in the imagination both within the old town and harbour district. From railway station to Quay and from quarantine hotel to assessment centre a relentless flow of human traffic was led towards a destiny, which remained uncertain. The vast population of third class passengers was highly heterogeneous in character both by culture and origin with no single history or common fate. And yet poverty and flight from oppression and the shared expectation of a new beginning were their common threads. What remains as a legacy is a list of names written somewhere in a ledger. These names represent both a measure of number and a multitude of personality. As many travellers carried little more than their name with them so too held within these names lie cultural origin, family ties, religious belief and ultimately a personal story.



The point of departure



Poster for the RSL



Archive, Dresden 1999, Candida Höfer

Analysis

The buildings - Use

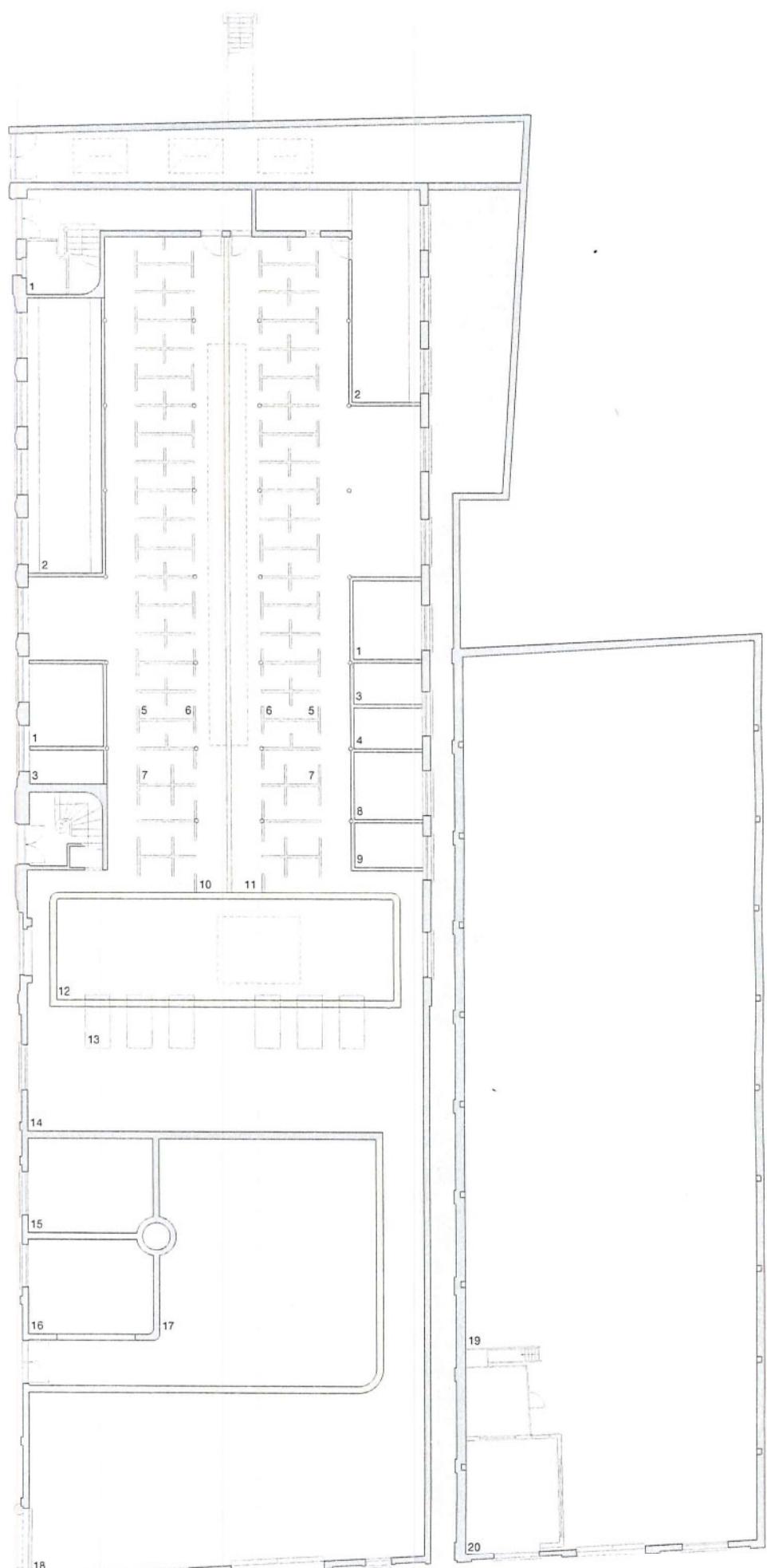
The design of RSL 3 as a 'disinfecting and bathing installation' clearly demonstrates the seriousness taken over the processing of people for transportation to the New World. Efficiency and order brought the Red Star Line success in business as well as the reputation of the champion of the emigration industry. The architectural detail of the sanitation building suggests a high level of legitimacy and respect for the act of processing people but it does not follow that there was an equal level of respect between traveller and assessor.

Designed as a circuit with a clear direction of flow to be traversed by large numbers of people in quick time and organised by a few personnel who were able to separate the travellers and control them individually, the RSL 3 building may be understood as a monument to efficiency and control. But the consequence of this mechanism of order brought a wide range of raw emotions to those who had to experience the sequence of disinfecting, bathing, assessing and examining. The experiences of segregation, loss of belongings, undressing, waiting, queuing, examination, interrogation and hoping are potent and powerful enough to engage the emotions of each of us.

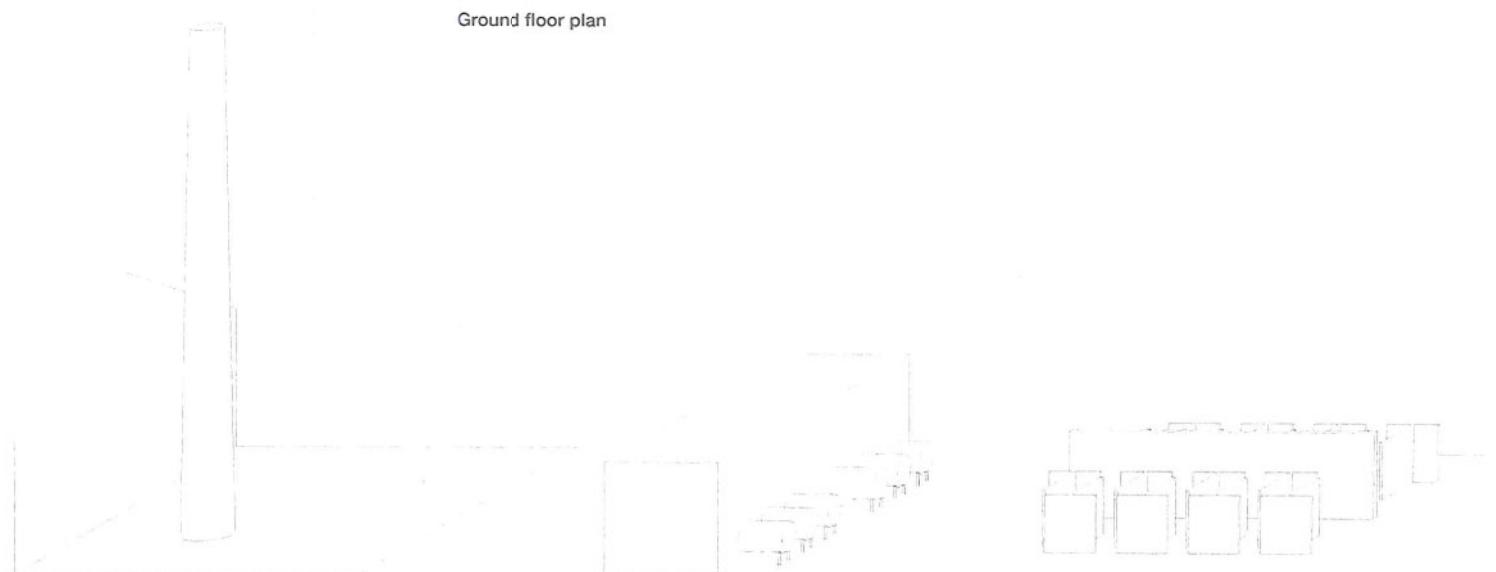


Original ground floor plan

- 1 Office
- 2 Waiting room
- 3 Hair
- 4 Linen
- 5 Showers
- 6 Dressing rooms
- 7 Baths
- 8 Storage
- 9 Toilets
- 10 Female Hygenic Circuit
- 11 Male Hygenic Circuit
- 12 Disinfected area
- 13 Disinfecting chambers
- 14 Infected area
- 15 Boiler house
- 16 Coal
- 17 Disinfected luggage
- 18 Infected luggage
- 19 Luggage storage
- 20 Porter's room



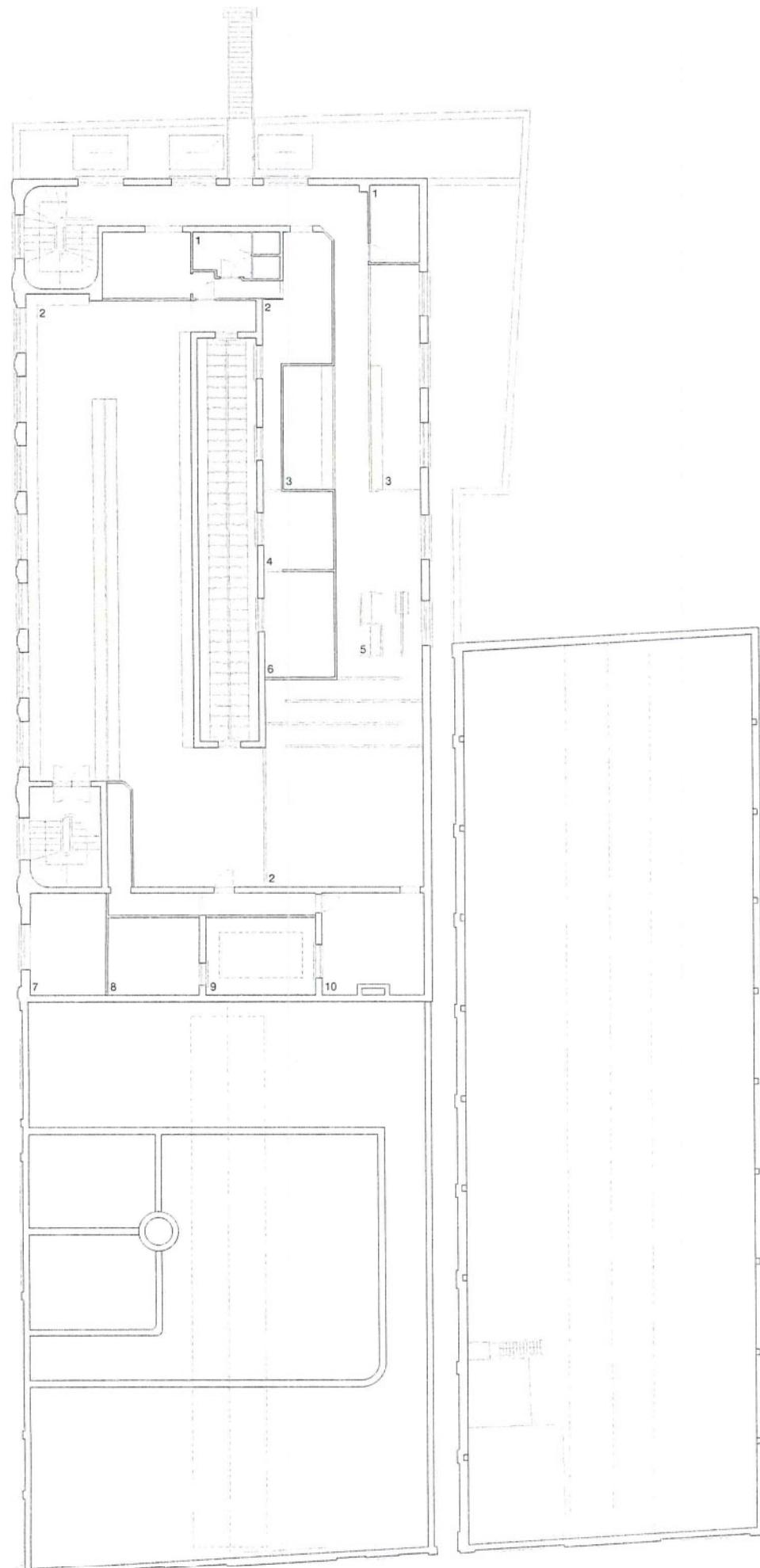
Ground floor plan



Leaving luggage and waiting

Handing over belongings

Undressing and washing. Segregation



First floor plan

Original first floor plan

- 1 Toilets
- 2 Waiting room
- 3 Office
- 4 Vaccination
- 5 Medical investigation
- 6 Rejected passengers
- 7 Living room
- 8 Kitchen
- 9 Patio
- 10 Bedroom

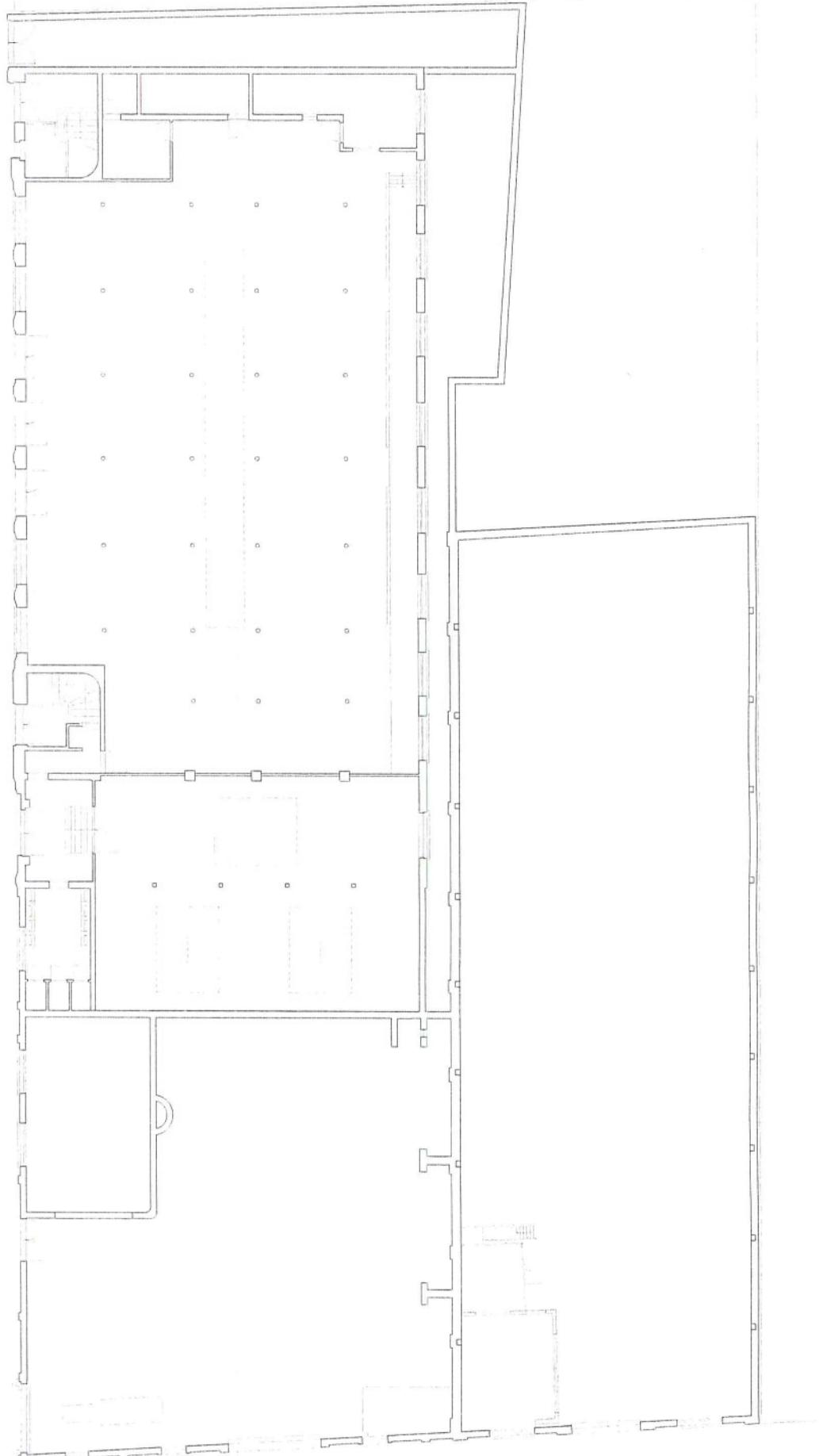
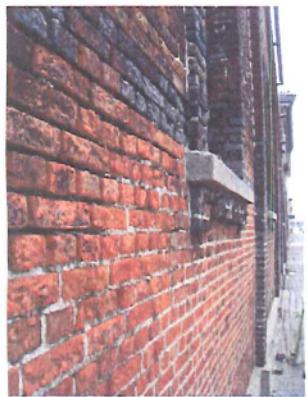


Analysis

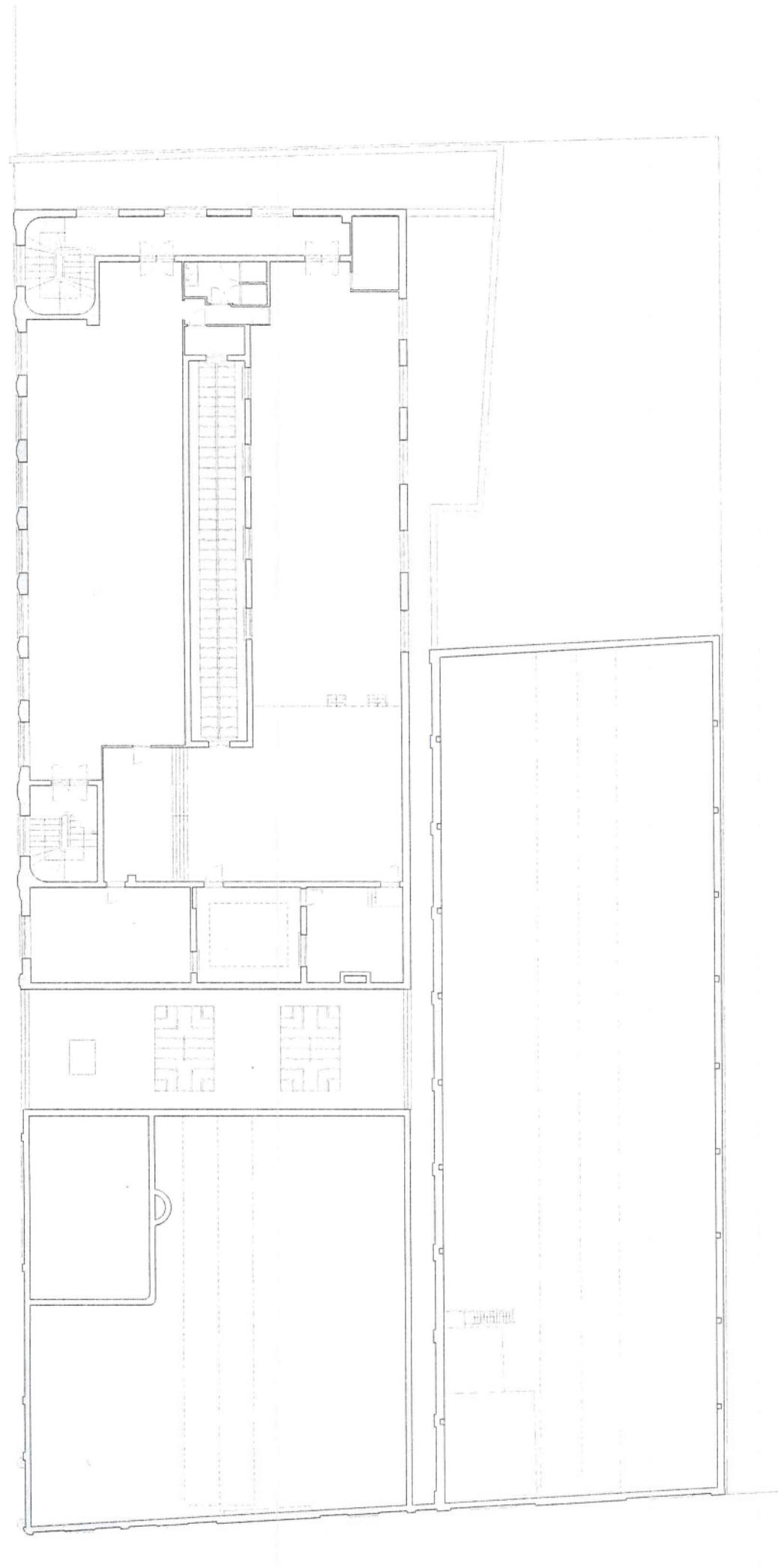
The buildings - As found

Despite the short life of the intended function of the building complex and the subsequent conversion of different parts for varied uses (from artist atelier to theatre group and car mechanic to Dockers hiring room), the buildings leave an imprint of their past in atmosphere rather than form.

The emptiness and silence of the spaces is a potent part of the experience of being there and is strangely evocative of activity just past – in the same way that chairs may be found pushed away from a table, for example, leaving the almost physical impression of a meeting just past. The atmosphere of an empty stage set is enhanced by the general tendency for space to be naturally lit from above or from one side leaving a brooding presence to the space.



Ground floor plan



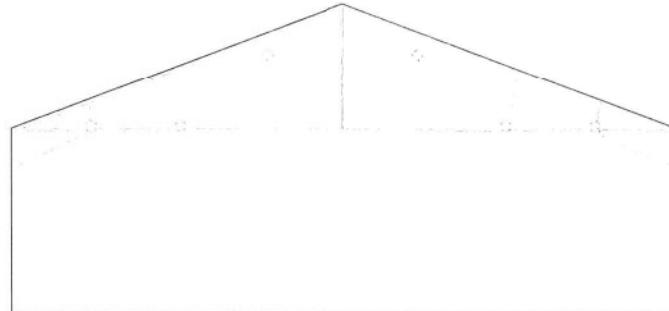
First floor plan



Analysis

The buildings - Inventory

Like a ledger we are left with an inventory of spaces. These spaces already form the basis of an installation – a sequence of rooms of different character and light. They have been in almost continuous use since they were built with interiors, which are open with solid masonry walls. The walls and floors register the position of previous dividing walls, partitions and ground trenches and record the shift in the building's role. Rather than having only one scale the complex has a myriad of scales and characters of space which is something that will make the building much easier and rewarding to inhabit.

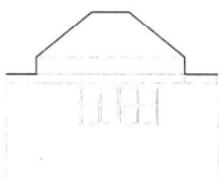


RSL 1
18.34 x 17.48m
4.80m clear height

Continuous central rooflight
3 south facing windows

East facing large opening on corner with sliding door
South facing large opening

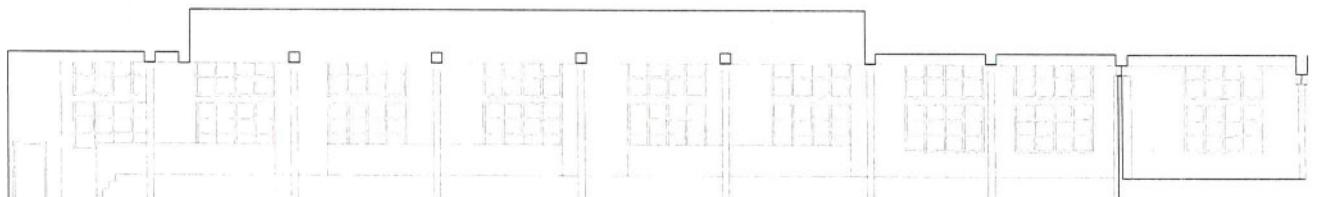
Brick walls
Concrete floor
Metal roof structure
Corrugated metal roof



RSL 1 - Ground floor
17.36 x 5.56m
3.20m ceiling height

2 rooflights
West facing window looking into space between RSL 2 and 3

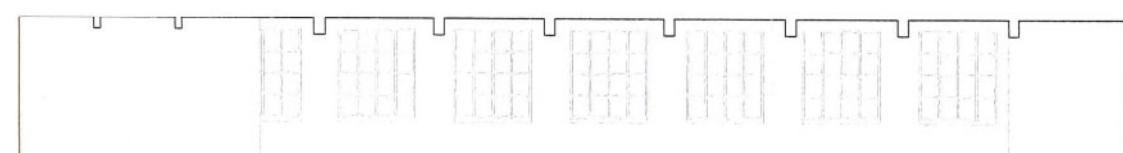
Brick walls
Raised concrete floor



RSL 3 - Ground floor
17.36 x 34.18m
4.03m ceiling height

Central lightwell
East facing windows
West facing windows looking into space between RSL 2 and 3

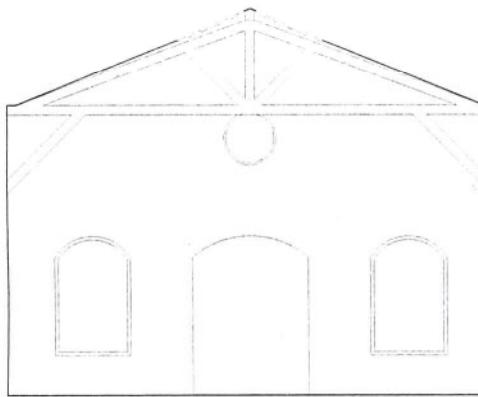
Brick walls
Concrete floor
Raised concrete floor along west side and south end
Concrete downstand beams
Cast iron columns



RSL 3 - First floor
29.14 x 7.26m
3.65m ceiling height

West facing windows
Brick walls
Concrete floor

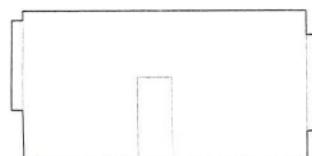




RSL 2
12.50 x 39.74m
7.37m clear height

Continous central rooflight
2 large south facing windows
1 circular south facing window at high level
South facing large opening with sliding door

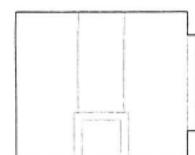
Brick walls with exposed timber structure
Brick floor
Metal grilles to roof structure



RSL 3 - First floor
7.45 x 4.50m
3.85m ceiling height

1 east facing window
1 west facing window to lightwell

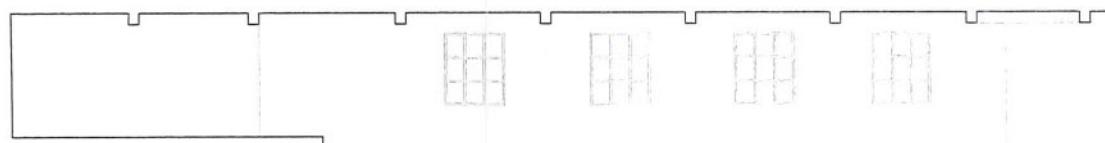
Brick walls
Timber floor



RSL 3 - First floor
4.50 x 4.50m
3.85m ceiling height

1 east facing window to lightwell
Fireplace on south wall

Brick walls
Timber floor



RSL 3 - First floor
29.14 x 6.94m
3.85m ceiling height

East facing windows to space between RSL 2 and 3
West facing windows to light well

Brick walls
Concrete floor
Raised timber floor at south end



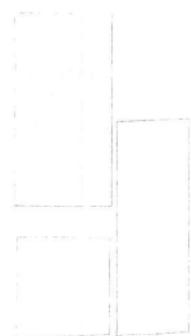
Concept Venue

We propose the making of a new cultural venue of three different and challenging parts. Each part enjoys the possibility of a degree of independence as well as an inter-relationship between each other. While the underlying curatorial theme is of emigration and the issues surrounding cultural identity and diversity, we believe this to be open ended enough to allow the development of a flexible and far-reaching programming policy.

Installation

At the Chinati Foundation in Marfa, Texas, Donald Judd installed permanent pieces of work in a series of dis-used Artillery sheds. His interest was to draw upon the character of the physical setting and to develop a symbiotic relationship between the work, the building and the landscape beyond.

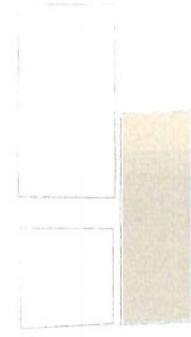
We are interested in how a permanent installation in RSL 3 could intensify the experience of the visitor in the former sanitation building. Sculptured objects and surfaces are installed in a way that would both represent and reveal process and previous use. However we understand this as more than a static installation but one which may be adapted for particular events outlined in the curatorial strategy



Chinati Foundation, North Artillery shed, Donald Judd

Forum

The Palais de Tokyo, Centre for Contemporary Creation, Paris, provides a huge work site, a global project punctuated by events embracing all forms of expression. The programme of the centre formulates a platform for French and International creation to enter into a dialogue, a place of resources and interchange, a space for open debate. The building is open from midday to midnight to encourage the public to have a less distant, more intimate, rapport with contemporary creation. The architects (Lacaton & Vassal) sought to make the most of the building's physical and aesthetic qualities and created a space that resembles a town square, a place of passage and of meeting, of a freedom of space and usage. We can see how a similar atmosphere and level of opportunity may be achieved in RSL 2 by the provision of an infrastructure that supports various uses and programmes. The large warehouse building becomes a covered open space containing open areas, serviced spaces and smaller rooms with a link to a new courtyard space at the heart of the complex.

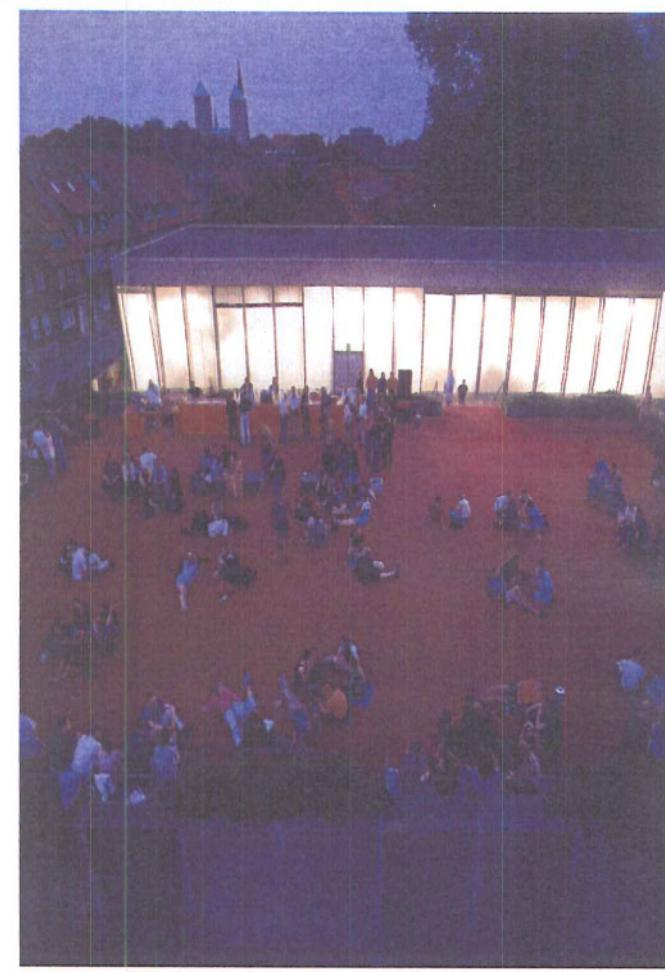
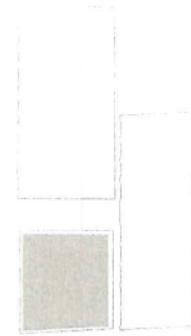


Palais de Tokyo, Centre for contemporary creation, Paris 2001, Lacaton & Vassal

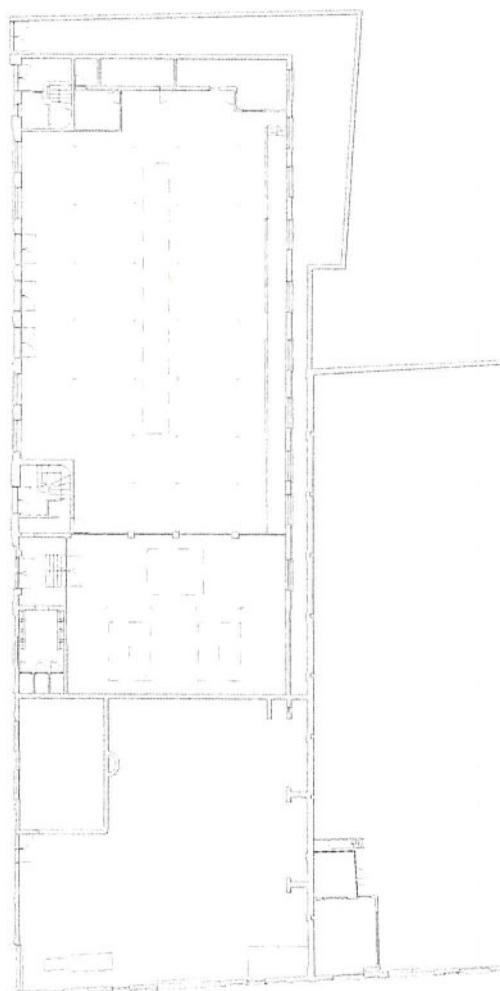
Reception

We can imagine how this new venue may become a focal point for a diversity of visitor and how the buildings would be an important cultural venue within the city. The spontaneity of events like Documenta and Sculpture in Münster and Artangel in London would be re-created here.

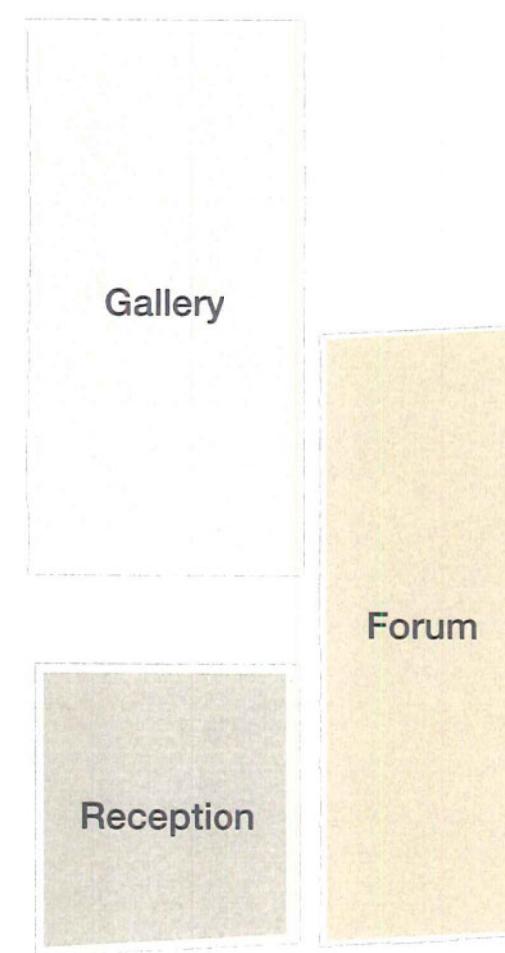
The site of RSL 1 would become the reception of this new venue providing a point of orientation, of information and rest. Bookshop, Information, café/bar, toilets and lockers would be located at this point and from here would commence the journey through the permanent installation.



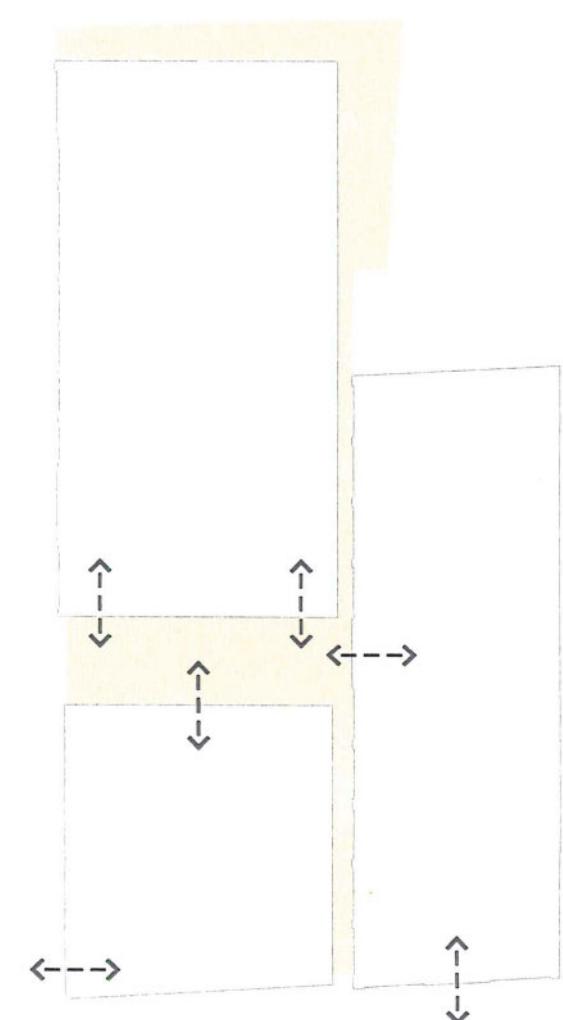
Installation at Skulptur Projekte, Münster 1997, Tobias Rehberger



Existing complex



A new venue of three parts



Interconnecting courtyard



Repair and restoration

Our instinct as architects is to work, wherever possible with the conditions as found, to re-interpret and intensify conditions which exist already. It is a natural response for us therefore to work with the character of the buildings and to honour the dignity we find in each. It is our intention to touch the building fabric lightly wherever possible, to stabilise the buildings and prepare them for re-use. However, the extremely poor condition of RSL 1 prompts a more radical response and a re-interpretation of the principles of restoration through a strategy of replacement. We also believe it is reasonable to question the legitimacy of the 1937 infill between RSL 1 and RSL 3 and to replace it with an open courtyard which may then act as a central organising element and an important social space within the new complex.

With each building we propose a rigorous hierarchy of priority (prompted by the budget): to guarantee stability, to apply the safety norms, to create conditions for public accessibility, to reconstruct the systems of lighting, wiring, heating and vertical circulation and to offer a simple and agreeable level of comfort in temperature terms.

Concept Casting

The emotional weight of memory is left like an imprint on the very fabric of these buildings and this has prompted in us a conceptual and construction strategy – that of casting.

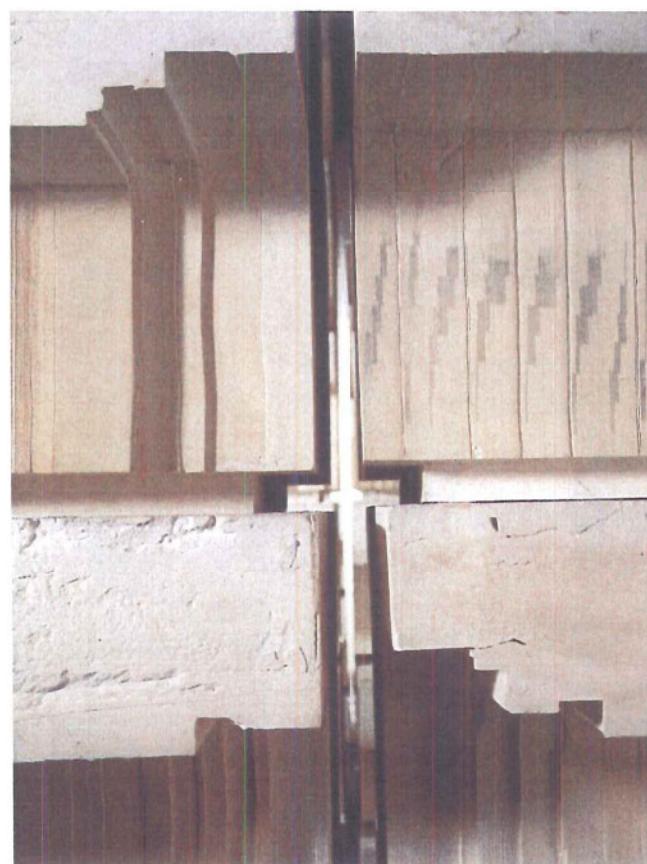
To cast, one forms a new surface or volume from a surface which formerly existed. The imprint of the cast becomes permanent – not to be forgotten. Like the imprint of the hands of one's first born, the resultant cast 'materialises memory'. Casting entails a kind of mapping of the remembered on to the present. It involves the viewer in a relationship with the object from which the work was cast which both mimics and remains distinct from the relationship entered into the maker (or artist). The surface of the cast provides a site of exchange between destruction and creation, the oscillation between what is known and what is other. It is the surface which locates the viewer in relation to the object, physically and mentally. We enjoy the way the surface of the object is the point of contact between cast and original, but also that between both cast and original and viewer: to understand the space we are looking at we have to become the place from which it came. In this way the imprint and its associative meaning engages directly and viscerally with our emotions.

Casting is almost precise as it accurately reflects the imprint of its form but the material and technique involved in forming the cast has an unreliability which makes the result uncertain. This 'perfect imperfection' holds a rich potential in describing the true materiality of the object and an authenticity of making. The process of casting also allows limitless repetition. In this way a cast may be both unique and one of a multiple (each almost similar to the next) – just as the individuality of each traveller to the buildings is also part of a larger repeated process of sanitation and assessment.

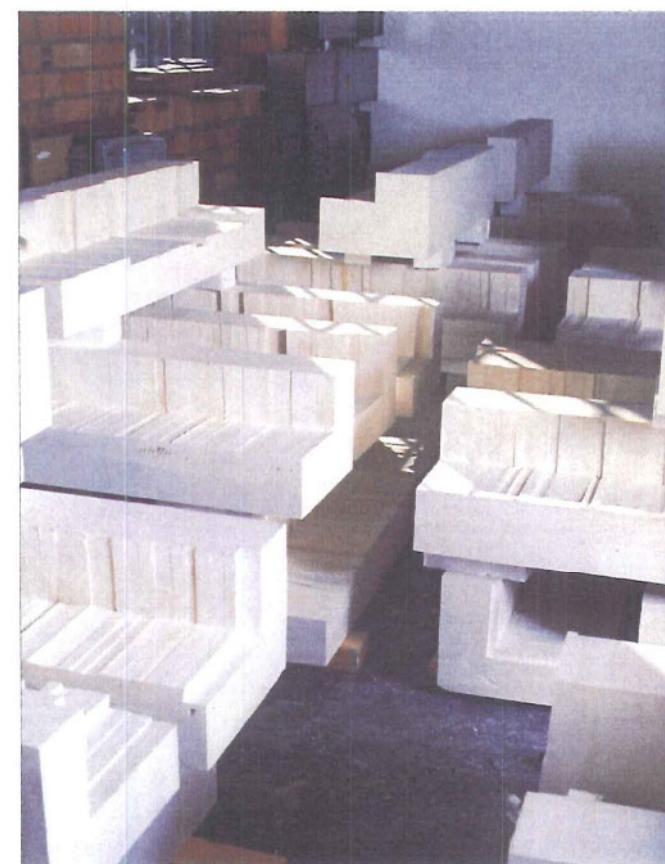
We propose two types of casting:
Volumetric casting and Pre-casting of elements



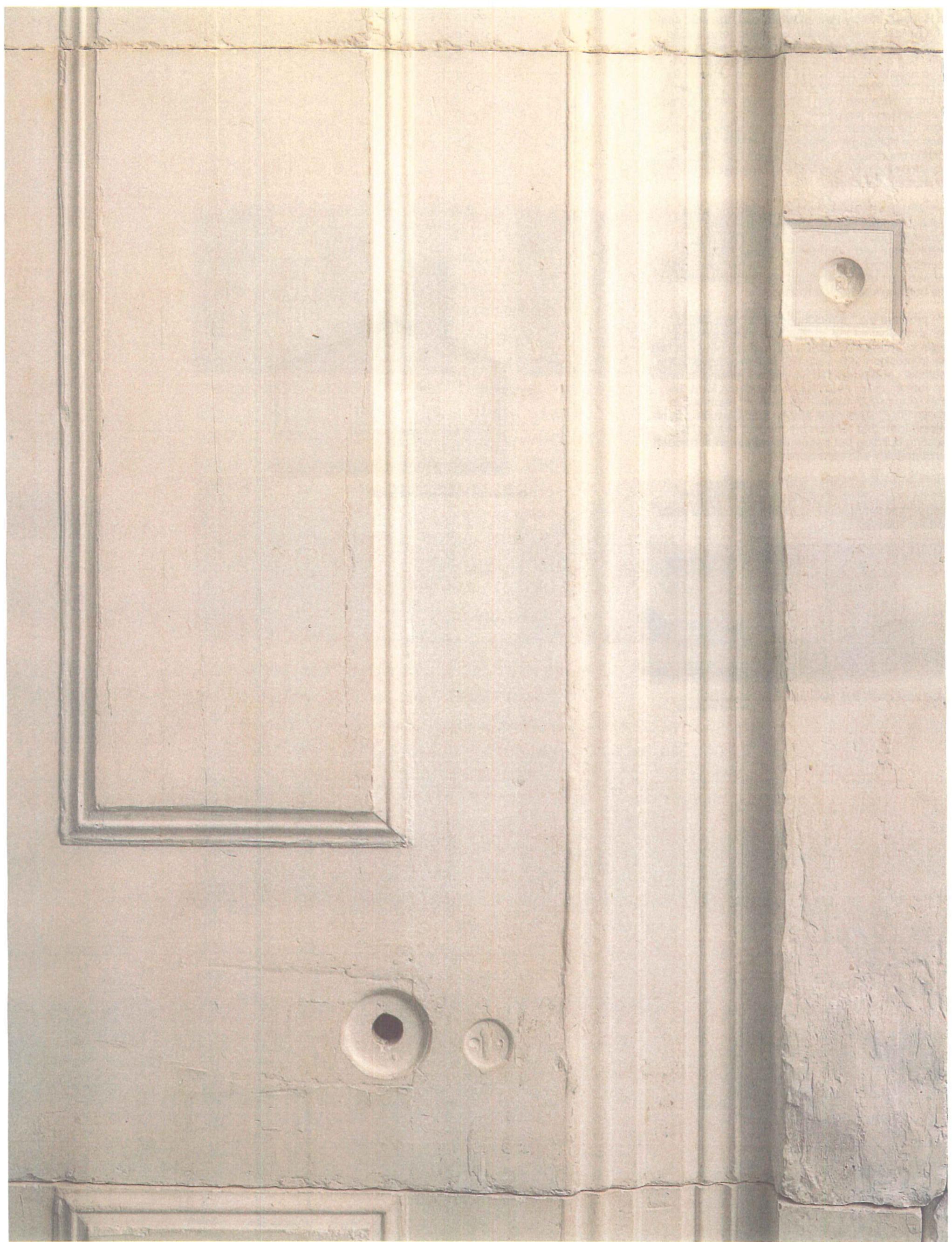
Tilda's hands, aged one and a half



Untitled book corridors 1998, Rachel Whiteread



Untitled book corridors installation in progress



Ghost 1990, Rachel Whiteread

Concept

Volumetric casting

In House, 1993 by Rachel Whiteread, the void space of a typical terraced house is cast to form a solid object imprinted with the detail of elements: window cills, floors and door panelling. This was a short-lived register to a period of city life in London. Its separation from its neighbours (as the other parts of the terrace had been pulled down due to bomb damage) gave it a powerful presence, despite its size. The resultant mould had even more presence than the building it represented and left a long-lasting impression. In this sense it succeeded in transforming the experience of the existing building to another dimension.

In the Swiss Embassy in Berlin, 2000 the artist Helmut Federle cast an abstract relief onto the damaged gable wall of the embassy building (refurbished and extended by Diener & Diener) thereby 'completing' a volume that had previously formed part of a terrace and creating an imprint of the building's tectonic ordering.

We propose the 're-making' of RSL1 by casting concrete against the interior face of the existing walls to from a new space, the surface of which has the impression of the existing building. Equally, the materials of the roof (tin and patent glazing) provide the formwork for concrete panels which form the enclosing roof. A funnel-like rooflight is placed in the position of previous smoke stack resulting in an overall form that reflects the modest scale of the existing building but becomes monumental through its materiality and abstraction.

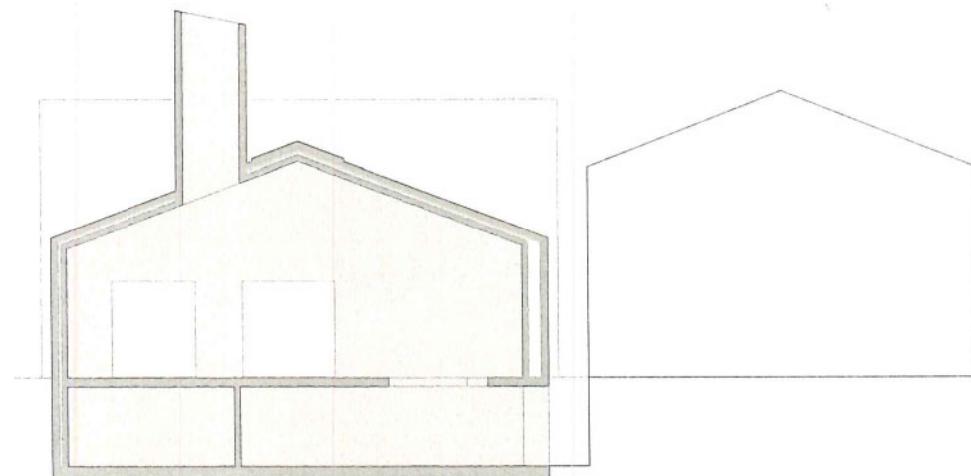
This forms the reception and entrance to the building complex and creates a noticeable but modest landmark seen from both the cultural route and the Rijnkaai.



Swiss Embassy, Berlin 2000, Diener / Diener / Federle



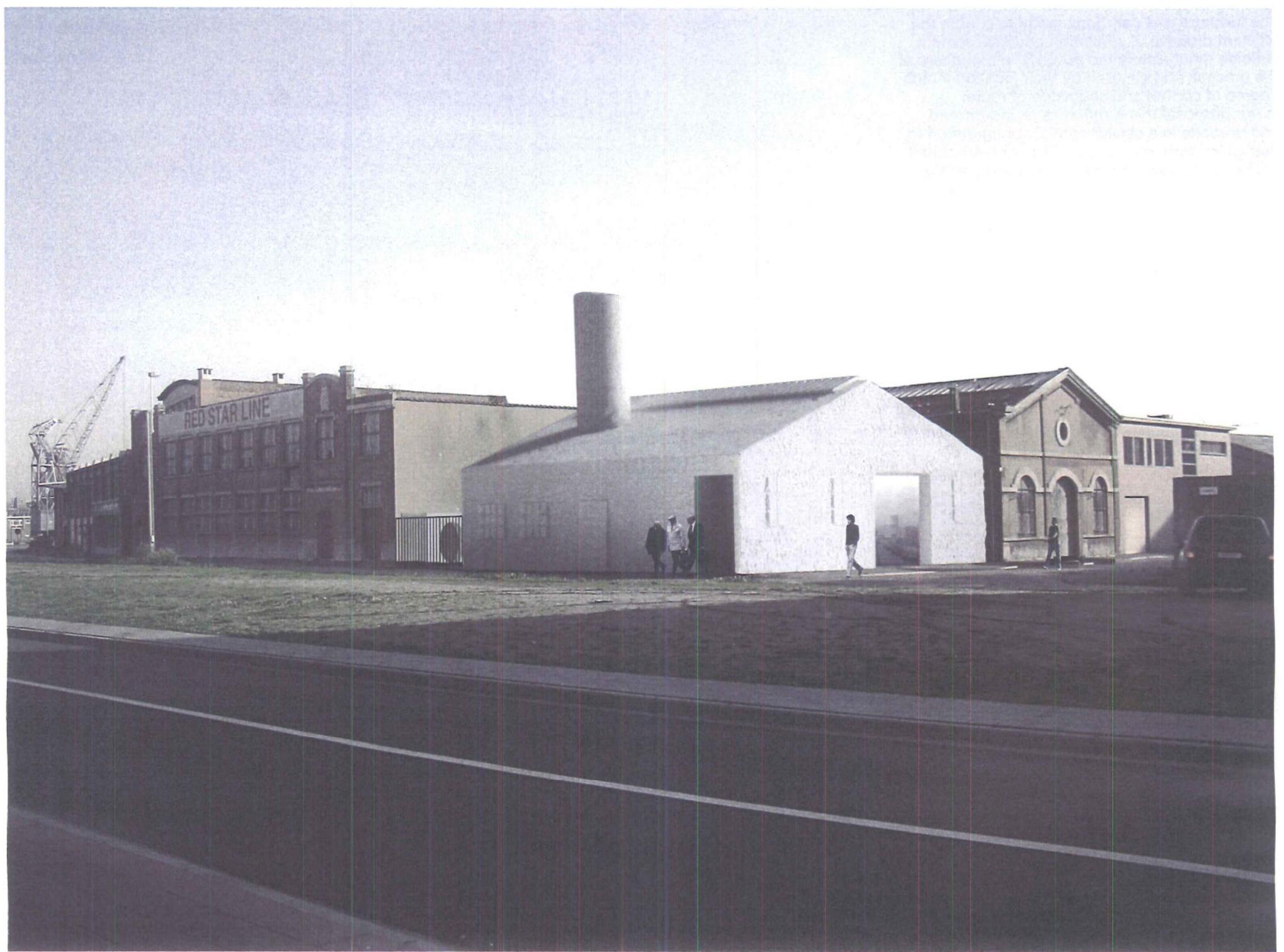
House 1993,
Rachel Whiteread



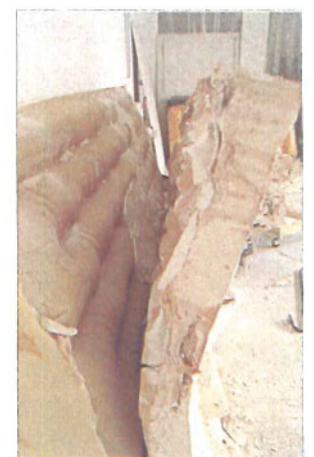
Cross section through new cast of RSL1



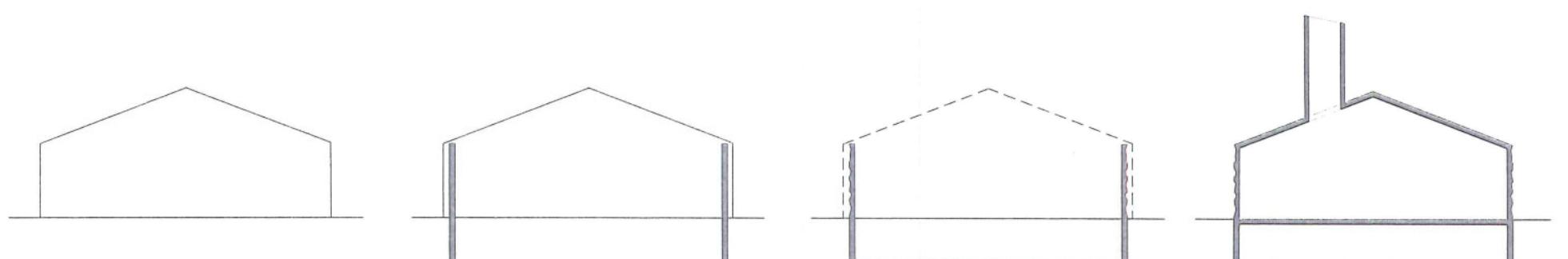
Plan of new cast of RSL1



Proposed view from Rijnkaai showing new cast form



Formwork for Shedding Light,
Rachel Whiteread



Existing building - sealed and prepared

New walls cast against existing - basement poured

Existing building dismantled

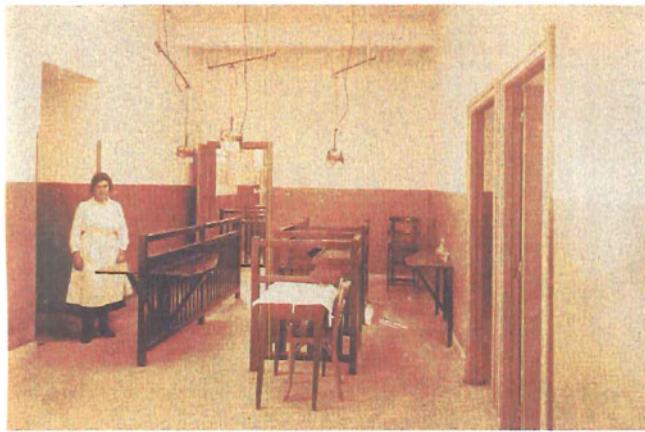
Roof, smoke stack and ground floor cast to complete vol

Construction sequence of casting for RSL1

Concept Pre-casting

The furniture and partitions made to enable the efficient process of sanitation and assessment indicate most clearly the powerful atmosphere of the process and ensured by their location a high degree of control and sequence of route. In our proposal this furniture is re-interpreted and re-made in a similar spatial configuration to that which formerly existed. The light structures of shower screens, benches, rails and partition studs are made as pre-cast concrete pieces and permanently installed in order to re-open and make recognisable the circuit so that it may be followed by visitors.

The abstract form of these elements and their arrangement in dense and open configurations engage directly with their setting to create an overall environment of conserved fragments. In this way RSL3 becomes a permanent installation evocative of the extraordinary events that took place within its walls. A soft restoration project where damage to the building is suppressed and original fragments are given significance by the re-establishment of some of the original elements of the design.



Proposed ground floor with pre-cast elements

Proposed first floor with pre-cast elements



Proposed view of permanent installation in Gallery 2

Concept

Surface and sound

By using a single poured material like concrete there is a legibility to the permanent installation. By also exploiting the technique of both in-situ casting and pre-casting in moulds there is much scope to work with the character of surface of the material to give character and enhance the possibilities of the imprint. While the volumetric casting is intended to reflect directly the surface of existing walls and surfaces, the pre-cast elements will be cast against a variety of surfaces chosen to evoke an emotional reaction with the previous use that each element represents. The shower screens for example are cast with a tile finish, polished and smooth but with a broken and rough joint. The bench will be cast on stretched canvas formwork giving the textile impression of padding. Materials are also chosen to achieve a level of colour transfer, giving the imprint a subtle watermark effect.

Just as we propose working with the detailed surface of each part, so too we propose to work with sound as it remains an evocative sense to the environment we find.

Silence can be given great presence by the introduction of counterpoint and we propose a permanent sound installation which will fill the corners and atmosphere of the spaces of RSL 3. In recognition of the power of the name that each emigrant held and of the multitude of 'names' passing through the building, we propose a recording of whispered names spoken by citizens, visitors and immigrants to Antwerp with their varied tone and accent. These whispered sounds form a background texture to the space and may be controllable to achieve a greater or lesser presence around the installation.

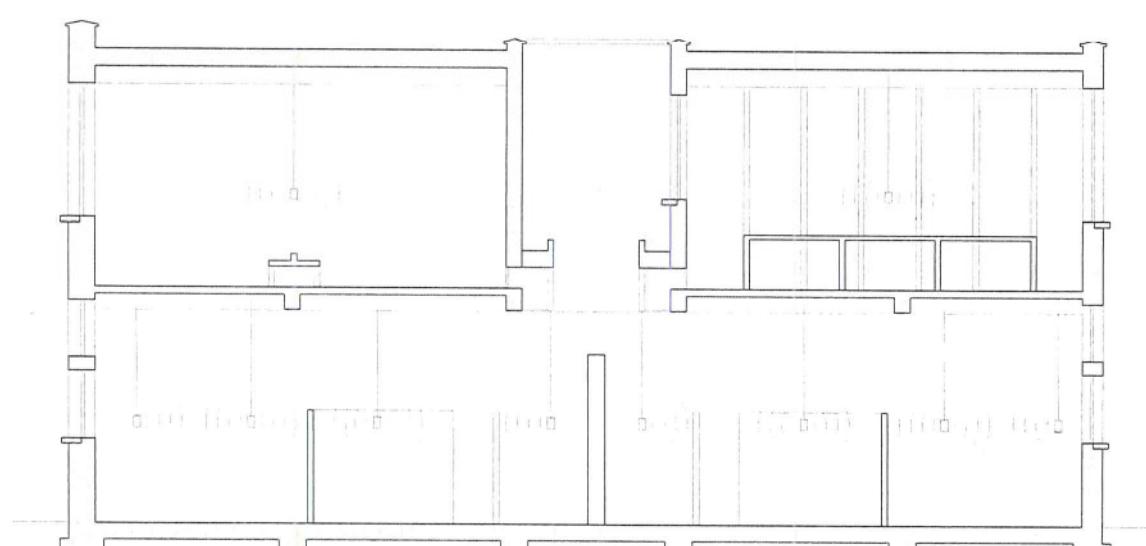
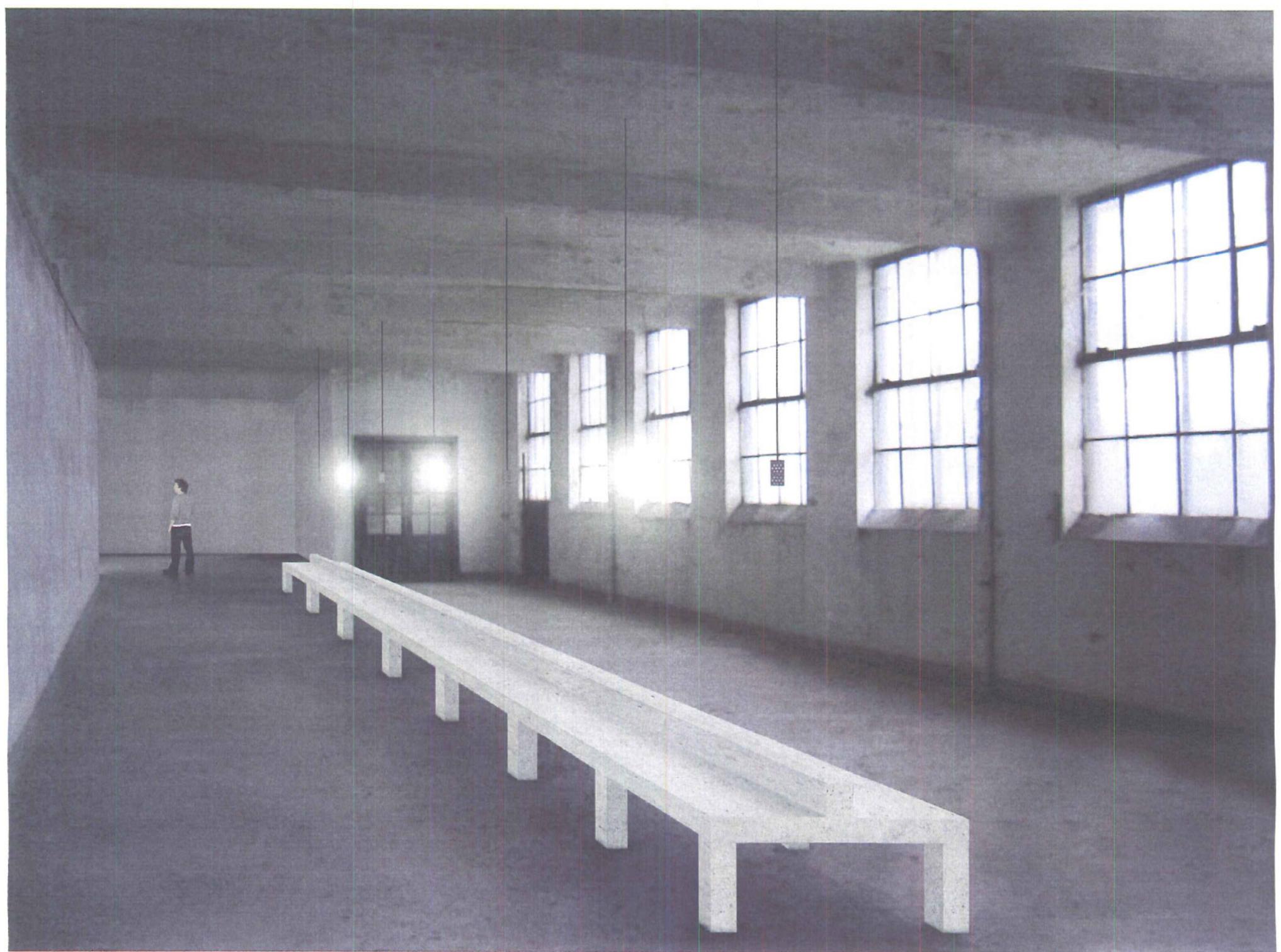
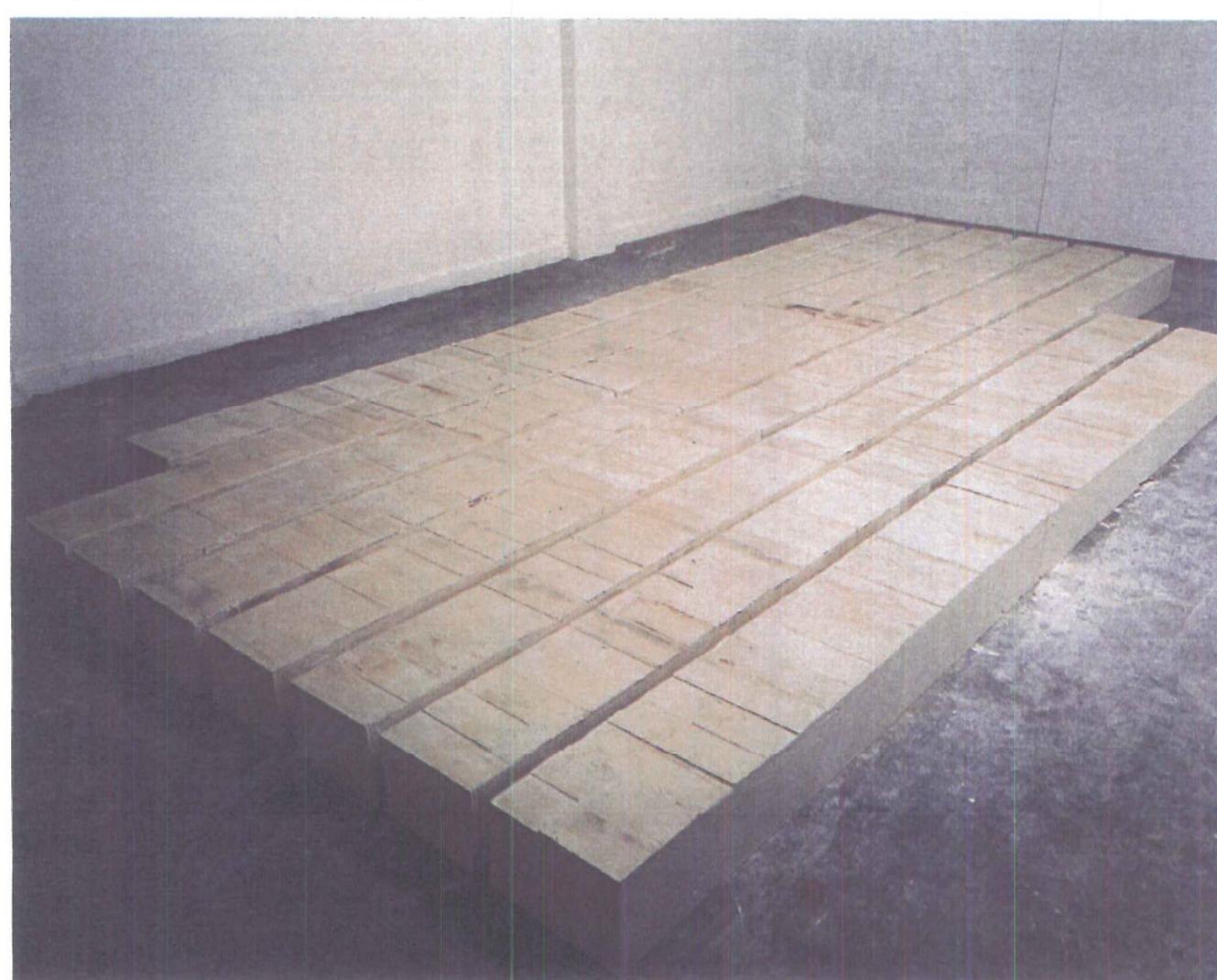


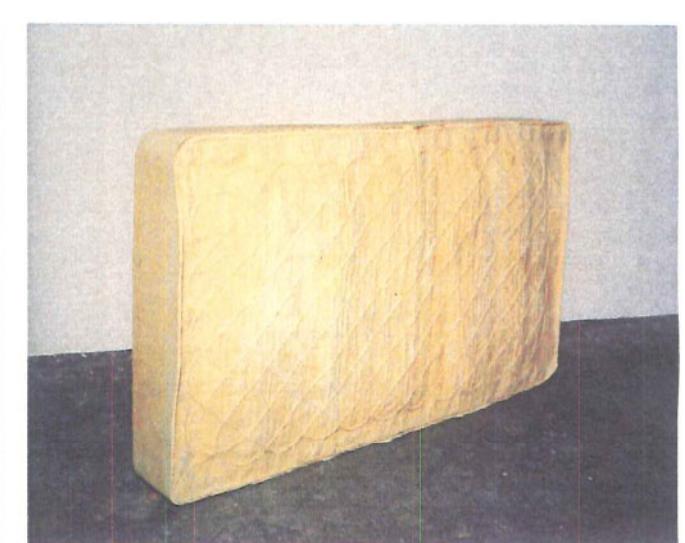
Diagram showing principles of sound installation



Proposed view of permanent installation in Gallery 3



Untitled (Floor) 1992, Rachel Whiteread

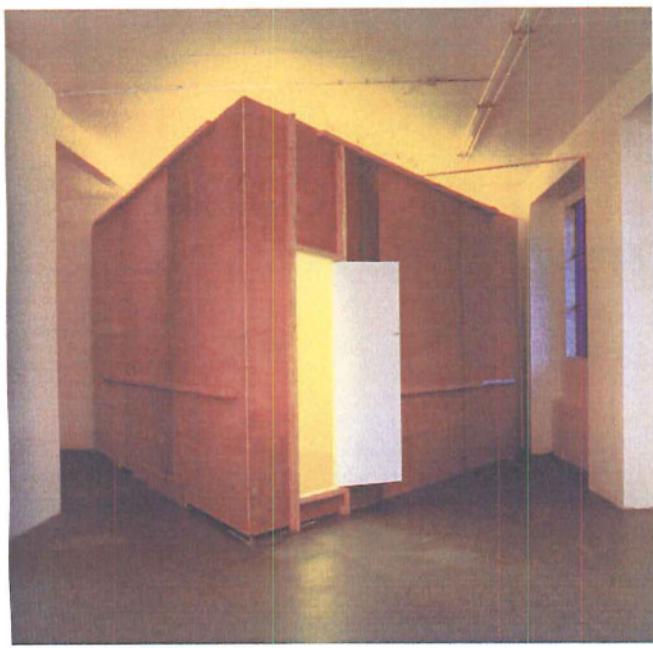


Untitled (Freestanding Bed) 1991, Rachel Whiteread

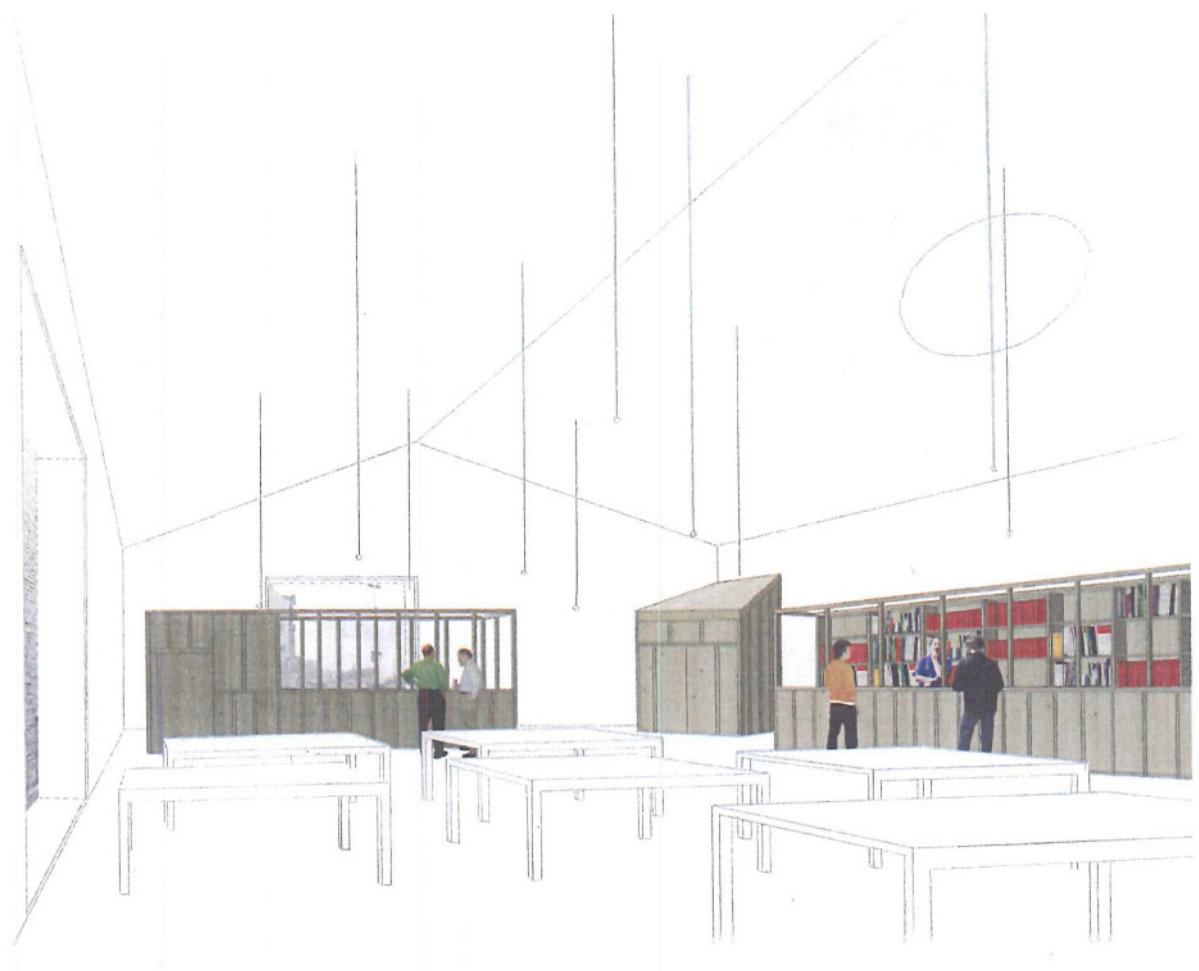
Concept

Packing cases

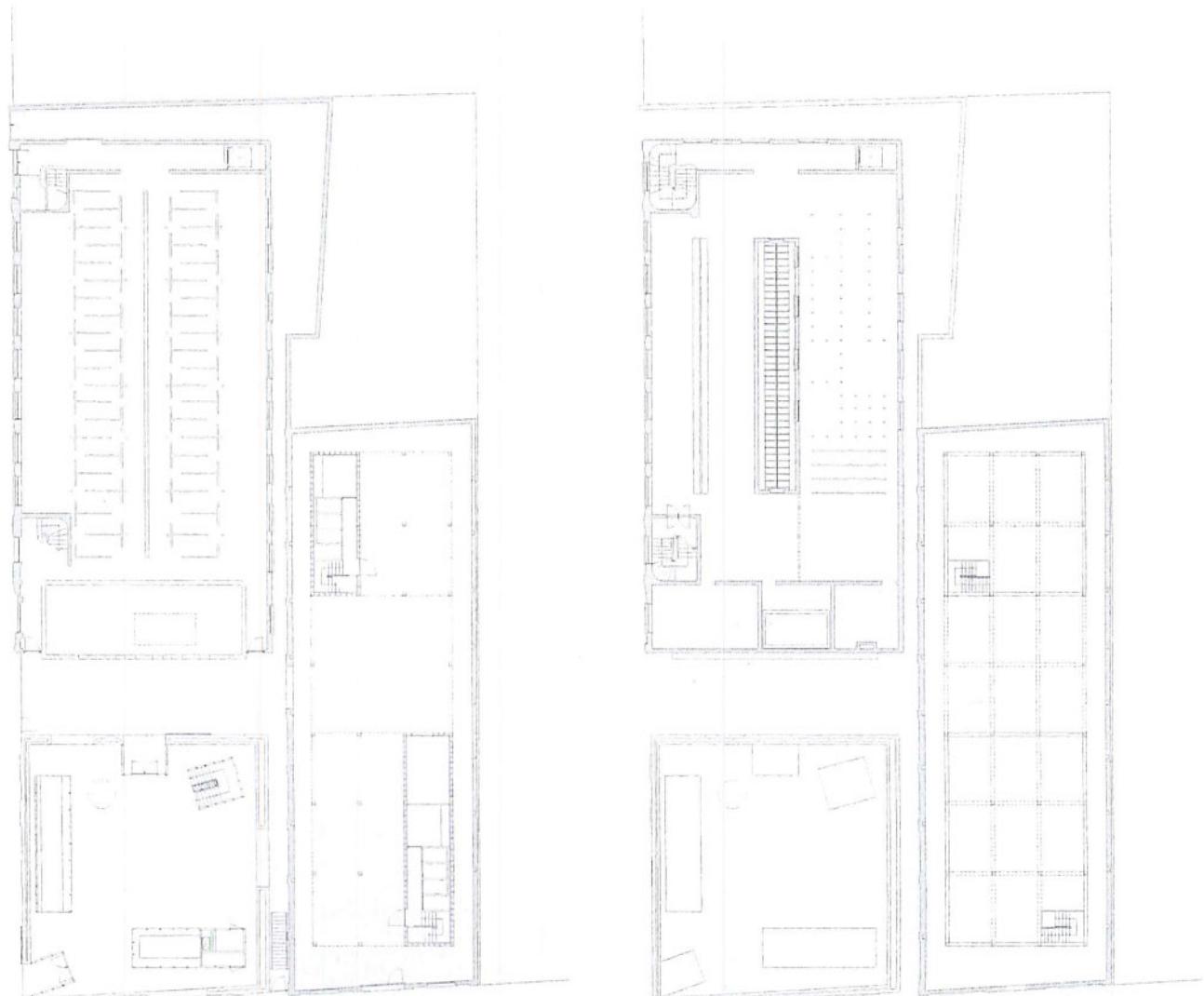
The elements of the programme which provide new use and infrastructure, such as shop, lobby, café/bar, mezzanine structure and services are made as lightweight and demountable installations. Like the packing cases that would have been stored in these rooms in the past, these additions are conceived of as large and light plywood structures. Resting against the building lightly or placed in a seemingly random way within the space they become organising elements and remove the need for a more permanent strategy of walls and partitions.



Yellow Room, 1973, Bruce Nauman



Proposed view of Reception with café, entrance lobby and book shop 'cases'



Proposed ground floor with lightweight installations

Proposed first floor with lightweight installations



Proposed view of Forum space

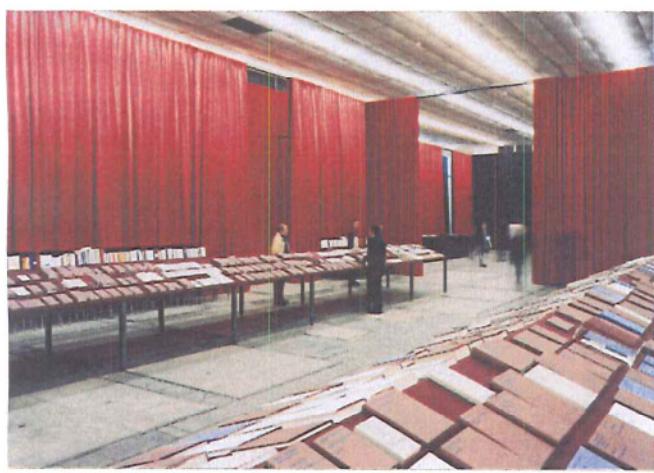
Concept

Curatorial policy

In the Red Star Line project we see a national and cultural testsite and a forum of possibility – a cultural centre that can contribute to the debate on the broader questions of society and identity (through issues surrounding emigration and otherness). In order to select the programme and establish curatorial strategy, we propose the formation of an editorial board that together formulate a dynamic and responsive direction for the project. The board may invite guests to join for a given period offering fresh direction and re-interpretation of strategy. We can imagine contributing to this board as an on-going process where our special responsibility would be for the building ideas. We could also imagine collaborations with the city archive, MAS, the Art Academy and University.

The new Rooseum in Malmö established in 2001 provides an interesting model for the possibilities available to the curatorial board. Recording studios, web TV, architectural proposals, club nights, solo and group exhibitions, artists workrooms, new types of archive and post-graduate academic courses are all explored to create possibility for the artist, for the audience and also for the city and citizens of Malmö. In 2003 the new Rooseum ran a year long programme called ‘in 2005 Malmö will no longer be ‘Swedish’’. Seven artists, living and working in Malmö for 2-6 months, were invited to make interpretations on this theme. They produced new work in different forms relating to the diverse communities and geographies of the city and many projects were presented outside the Rooseum building.

We see the potential for the Red Star Line to work in a parallel manner developing its own unique archive of investigations into cultural identity and otherness.



Hall 7, Frankfurt Book Fair, A Temporary Warehouse of Knowledge 1998,
Diener & Diener



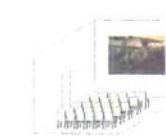
Room 1



Symposium



Artist in residence



Film show



Gallery 1



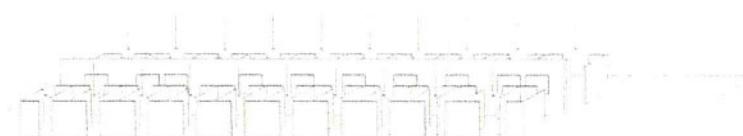
Sculpture show



Childrens day



Gallery 2



Painting exhibition



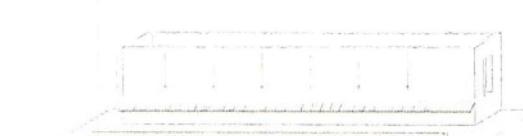
Web based project



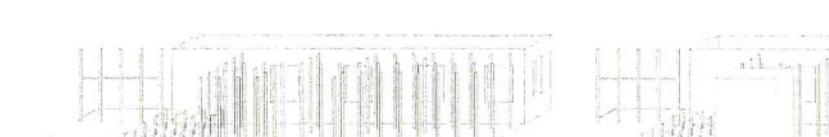
Gallery 3



Photographic exhibition



Book fair



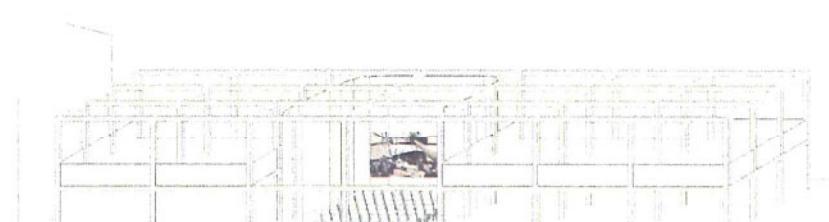
Gallery 4



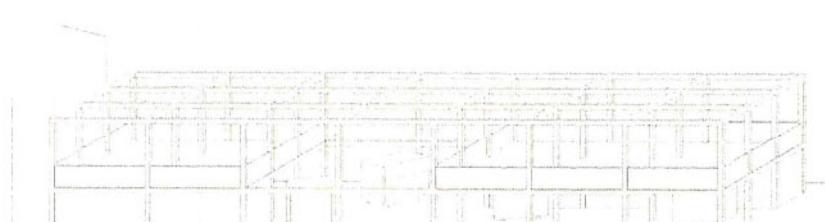
Photography project



Small picture show



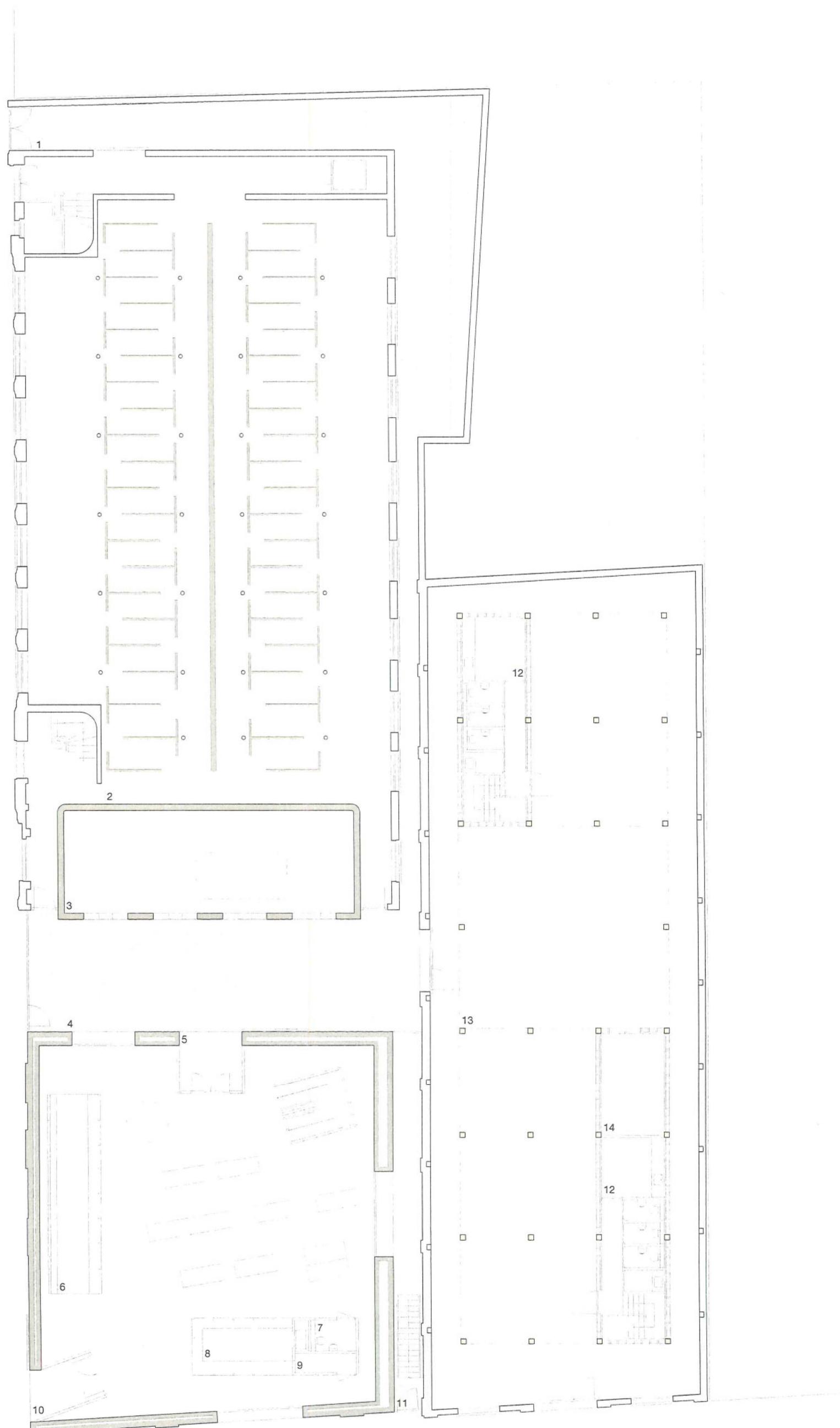
Film festival



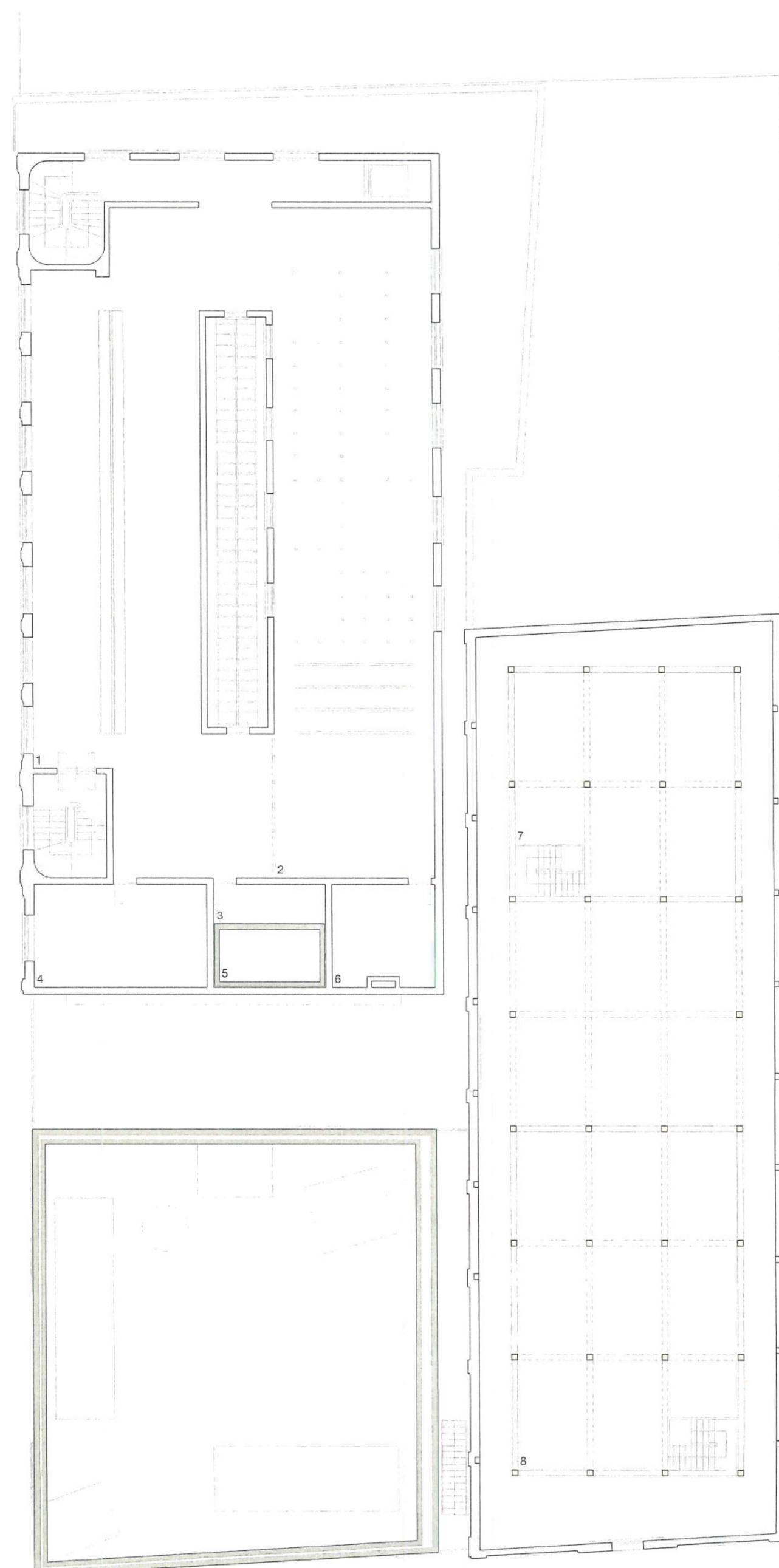
Craft fair

Proposals

Red Star Line



Proposed ground floor plan 1:200

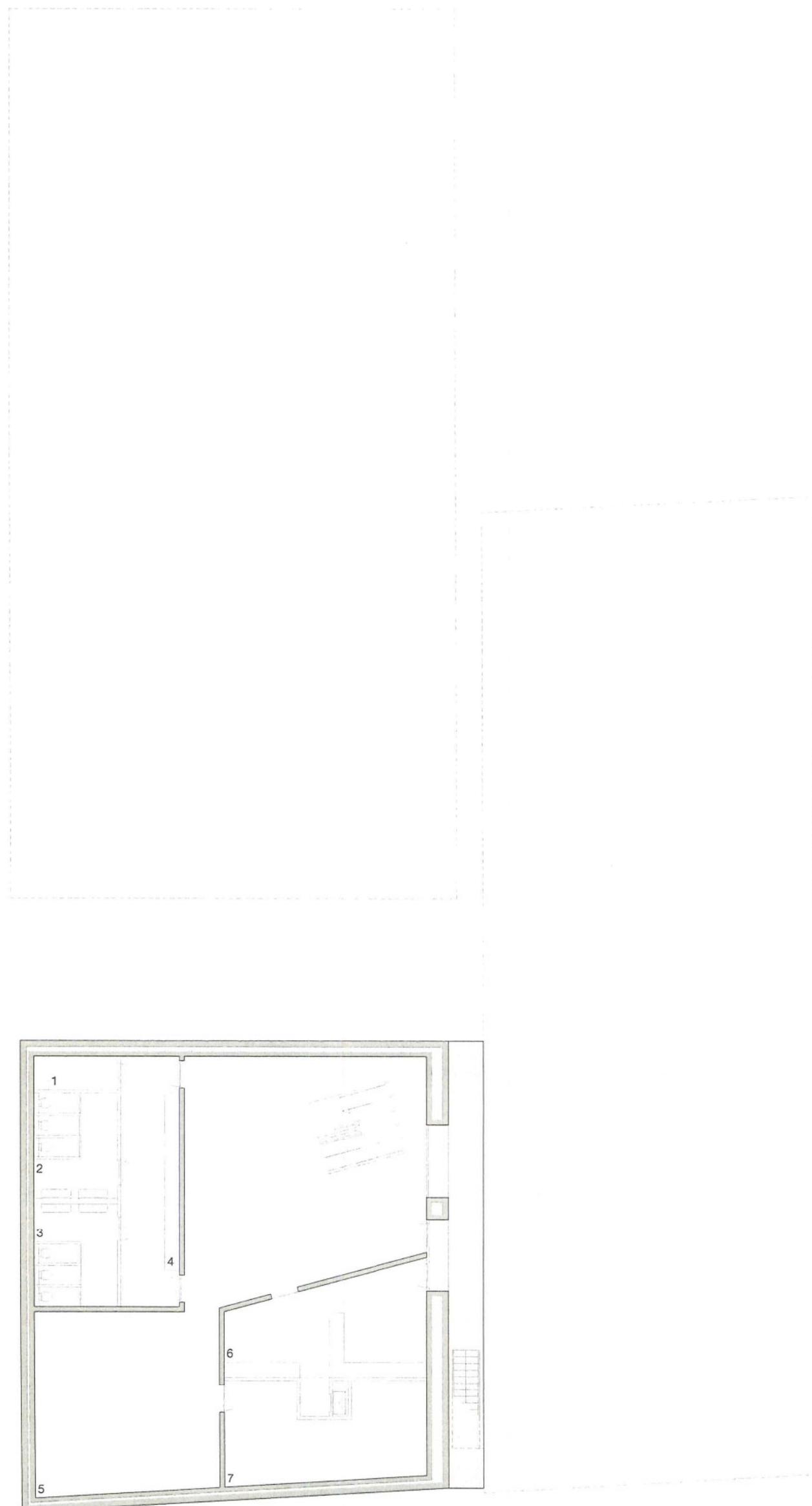


- 1 Gallery 3
- 2 Gallery 4
- 3 Store
- 4 Room 1
- 5 Lightwell
- 6 Room 2
- 7 Forum Room 1
- 8 Forum Room 2

Proposed first floor plan 1:200

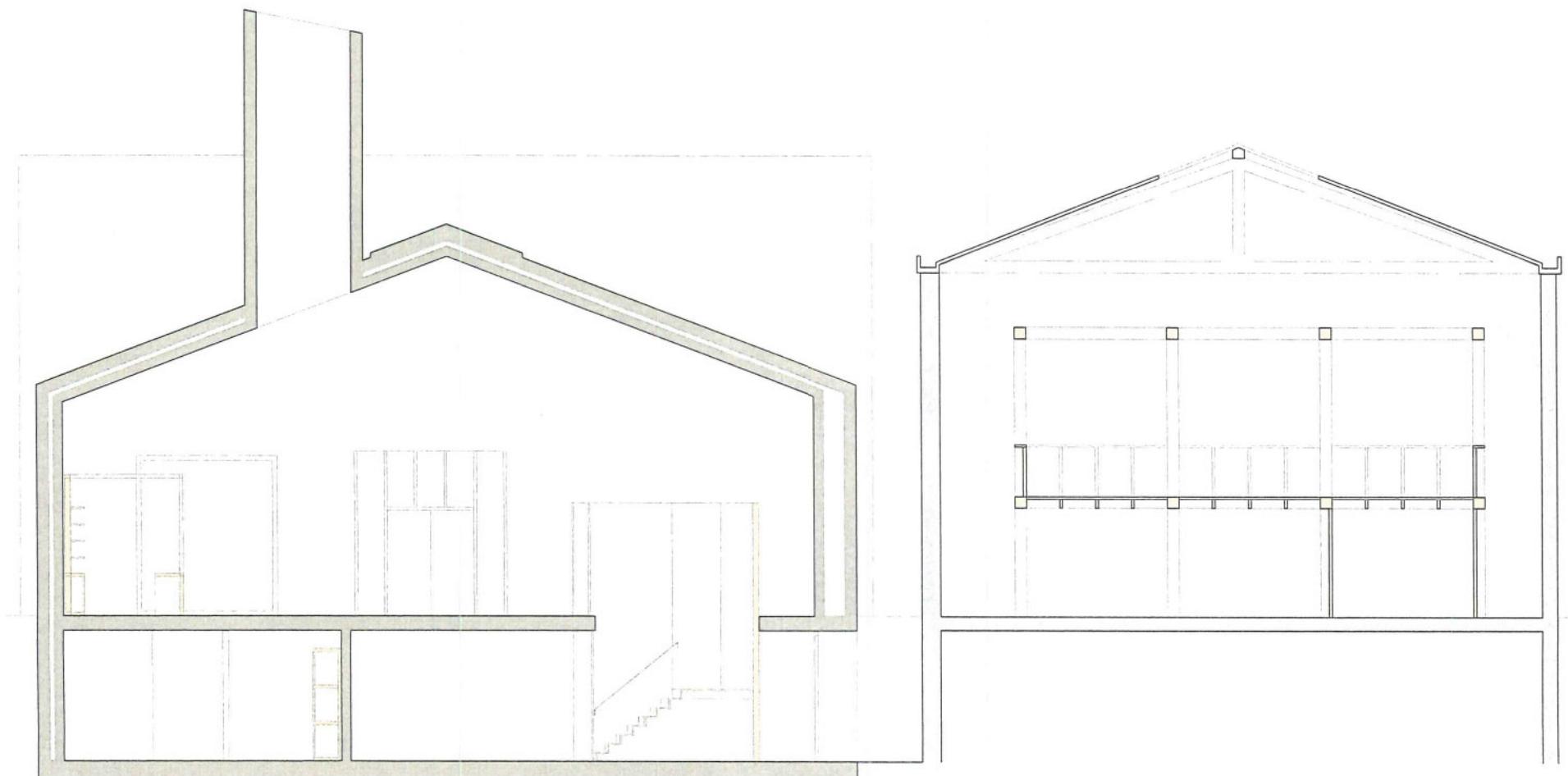
Proposals

Red Star Line

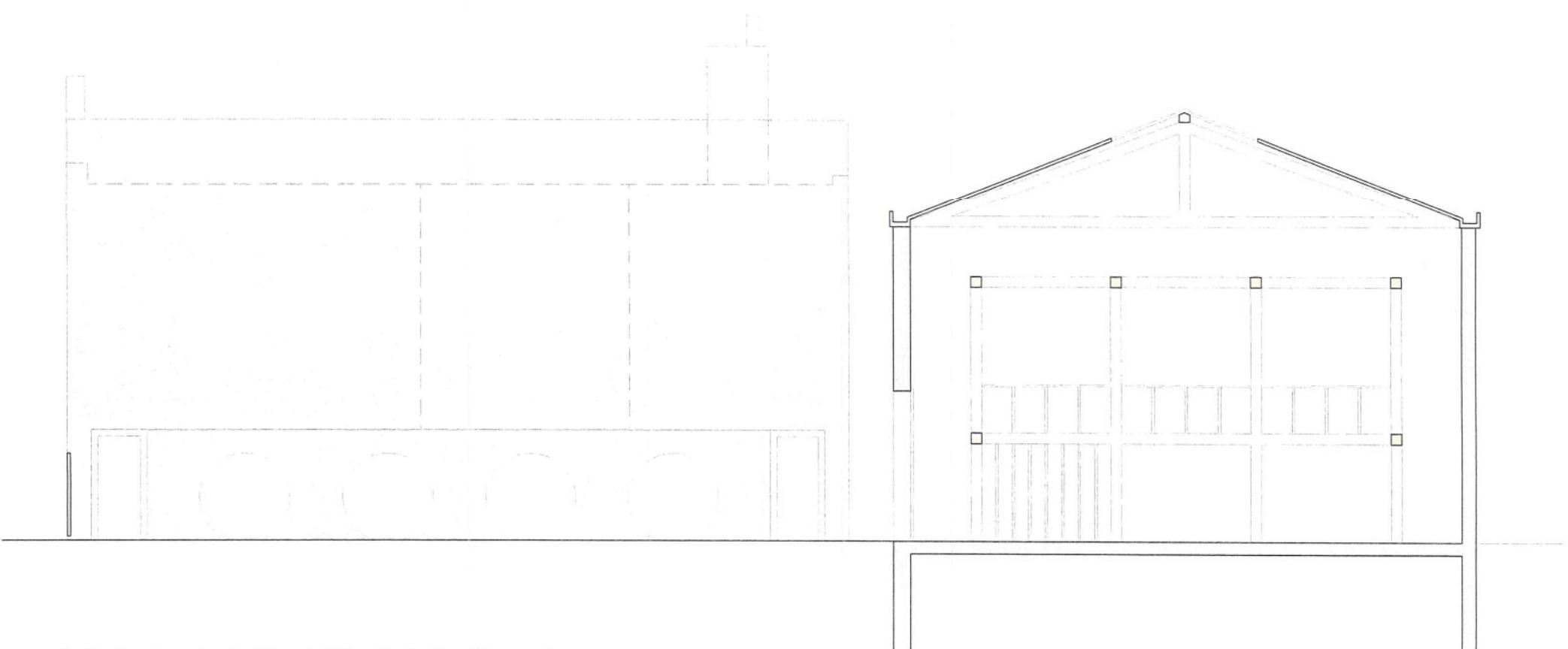


1 Baby change
2 Male toilets
3 Female toilets
4 Lockers
5 Storage
6 Kitchen
7 Plant/boiler room

Proposed basement plan 1:200



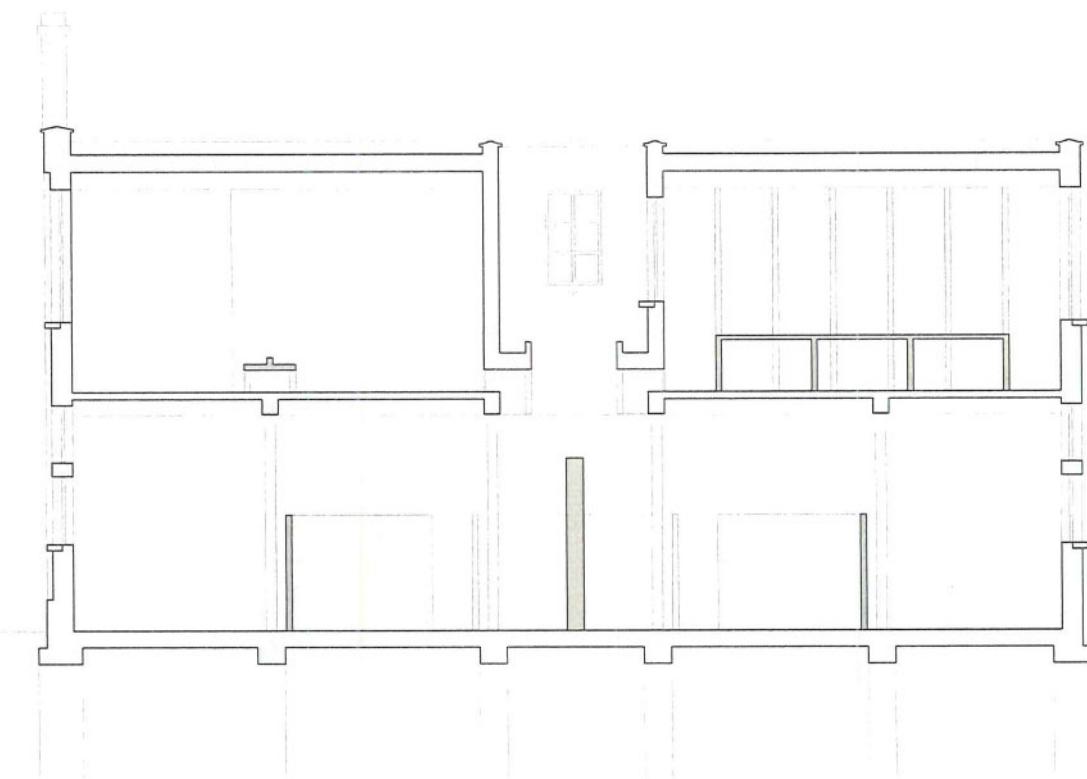
Cross section through Reception and Forum buildings 1:200



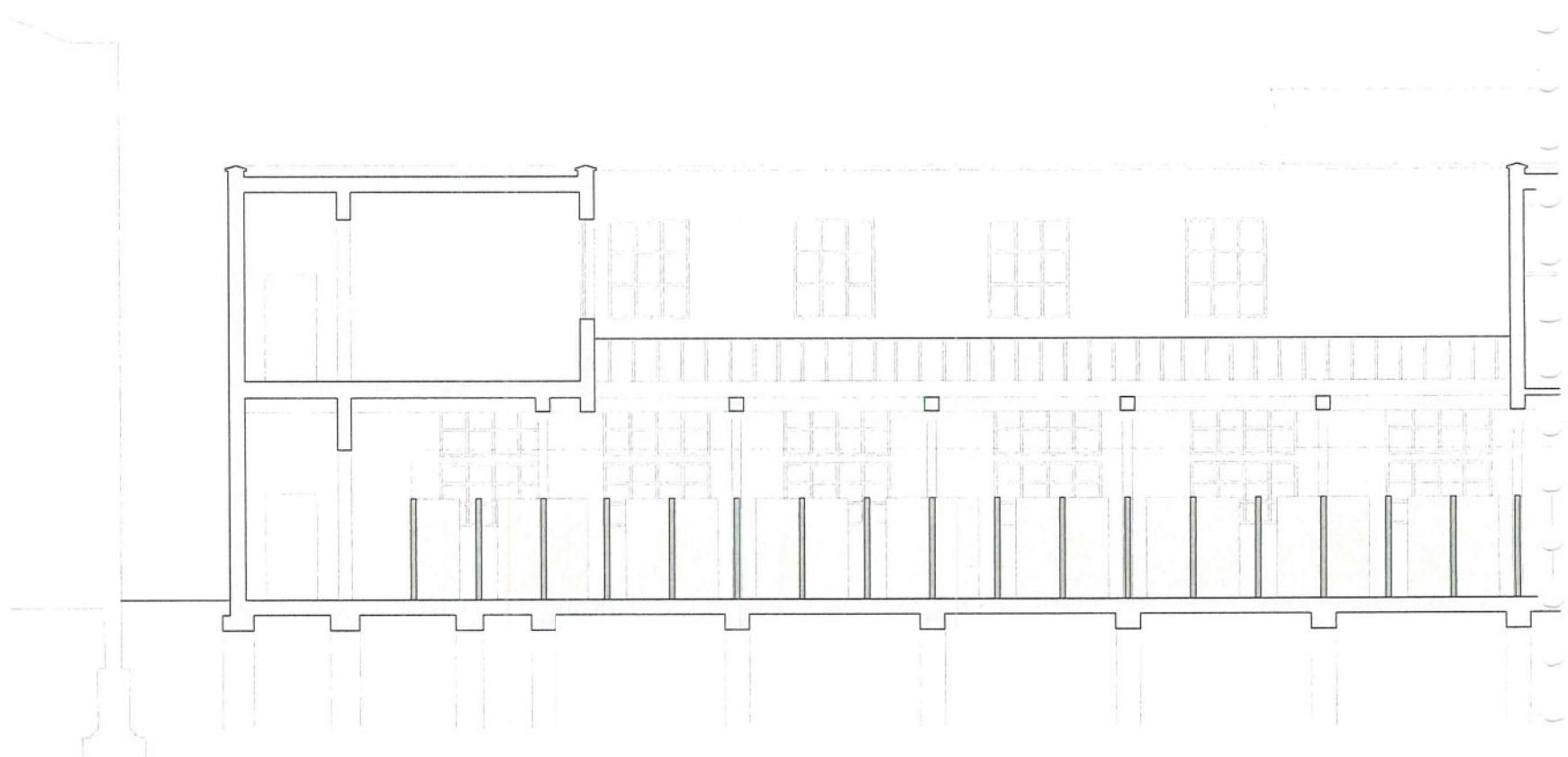
Section through courtyard and Forum building with elevation of Permanent Installation building 1:200

Proposals

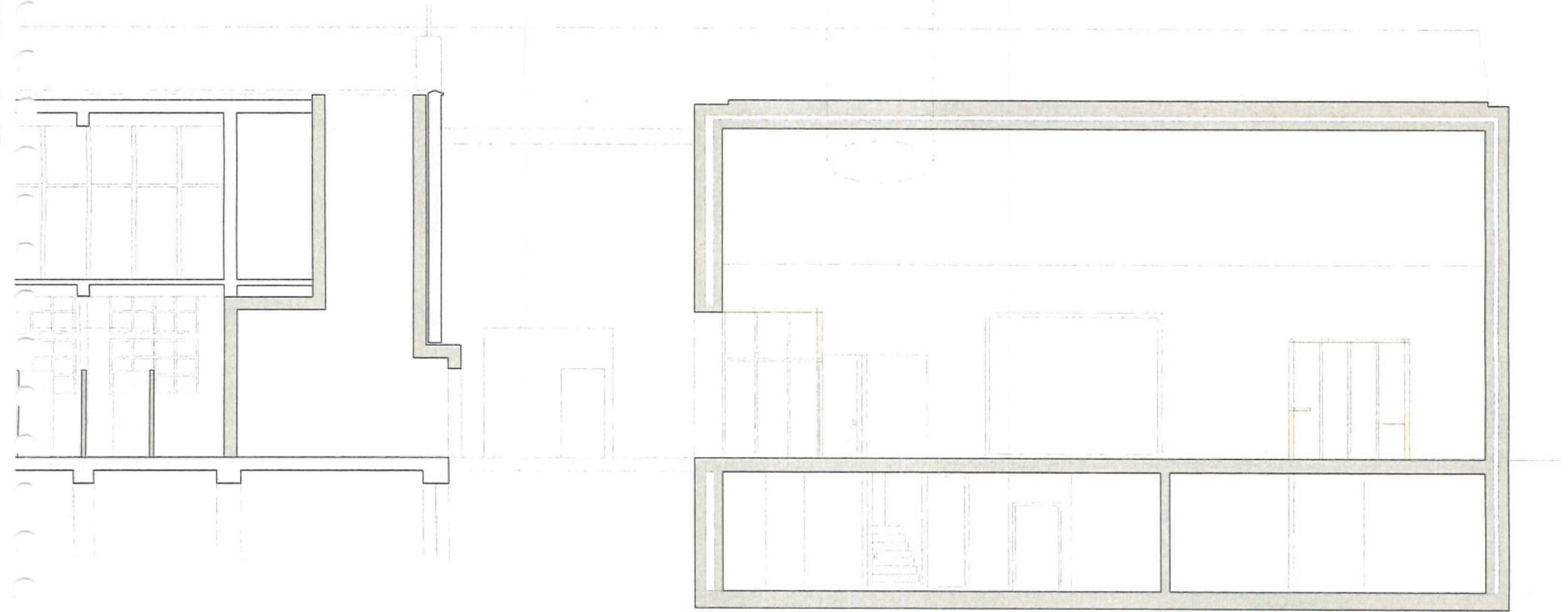
Red Star Line



Cross section through Permanent Installation building 1:200

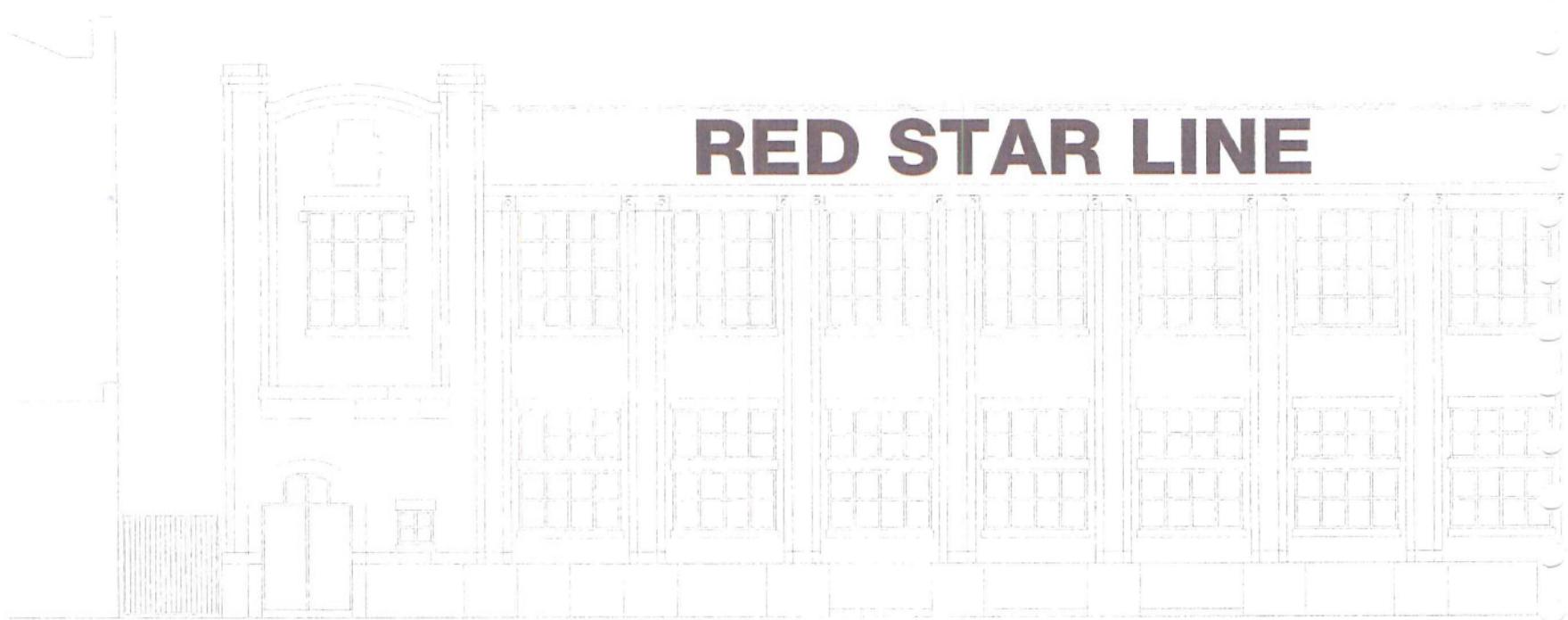


Long section through permanent Installation and Reception buildings 1:200

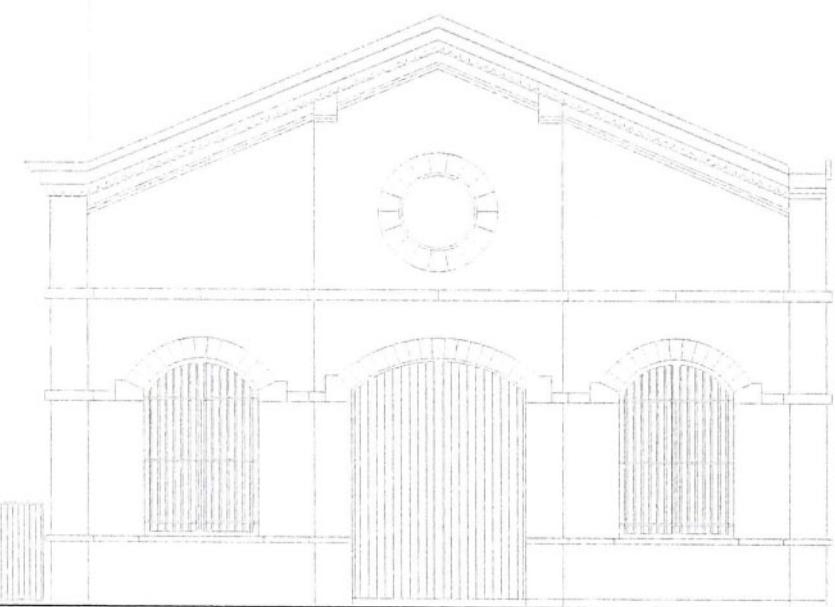
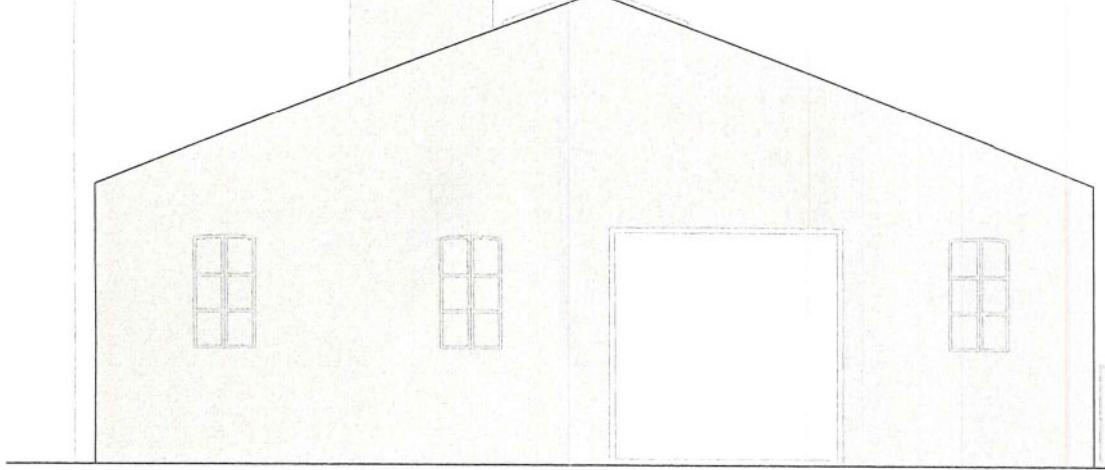


Proposals

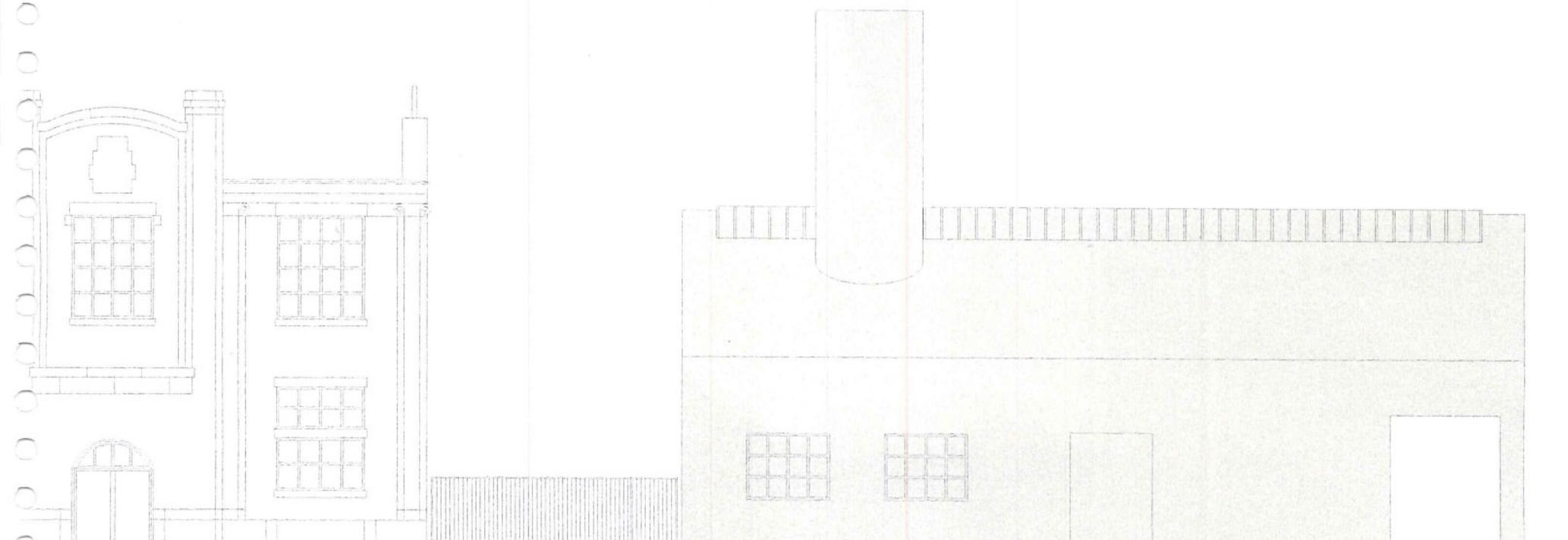
Red Star Line



Proposed elevation from Rignkaai 1:200



Proposed elevation from Montevideostraat 1:200



Proposals

Red Star Line



Proposed installation on quayside



Proposals

Structure & Services

Red Star Line 1

Het huidige gebouw 'Red Star Line - 1' is in zodanige slechte staat dat het afgebroken wordt. Er wordt op deze plaats een ander gebouw voorzien.

Het nieuwe gebouw zal volledig opgebouwd worden uit zichtbeton.

Voor de gevels en de dakplaten wordt langs één zijde een gewone bekisting gebruikt, terwijl langs de andere zijde de oorspronkelijke wand of dakplaat wordt gebruikt als bekisting.

De kelder moet groter voorzien worden dan het gelijkvloers en wordt doorgetrokken tot tegen de nieuwe gevel van RSL3.

Als fundering gebruiken we een algemene funderingsplaat, die ook dienst doet als keldervloer.

In de kelder moeten nog een aantal dragende wanden worden aangebracht om zo de overspanning van de vloerplaat erboven te verkleinen.

De vloerplaat van de gelijkvloerse verdieping draagt dus van gevel naar binnenwanden naar gevel.

Als gevels wordt er een dubbele betonnen wand voorzien in zichtbeton. Tussen de 2 lagen wordt er ruimte voorzien voor isolatie en technische leidingen.

Ook de dakplaten worden volgens ditzelfde systeem opgebouwd.

Red Star Line 2

Het gebouw is momenteel structureel opgebouwd uit houten kolommen en spanten die het dak (bestaande uit golfplaten) dragen.

Tussen de kolommen zit invulmetselwerk die de zijwanden vormen. De twee kopse wanden zijn in metselwerk opgetrokken.

Bij het invullen van de nieuwe functie in het gebouw wordt de bestaande structuur niet gewijzigd, enkel geconsolideerd en gerestaureerd.

Het dak wordt, samen met de bakgoten en andere regenwaterafvoer, verwijderd.

De nokbalk wordt vrijgemaakt van de loden bekleding, en wordt waar nodig hersteld en behandeld. Na herstelling kan een nieuw dak geplaatst worden dat echter een maximaal gewicht mag hebben van 100 kg/m². Ook de regenwaterafvoer wordt opnieuw geplaatst.

De gietijzeren schoenen van de kolommen worden corrosievrij gemaakt en behandeld. De bakstenen zijwanden worden deels weggebroken om de kolommen vrij te maken.

De houten kolommen worden waar nodig deels vervangen, en alle houtwerk - ook de spanten - krijgen een grondige behandeling tegen vocht, zwammen en insecten.

De spanten zijn voldoende gedimensioneerd om ook bij brand de nodige stabiliteit te behouden.

De kasseien worden uit de vloer verwijderd, het geheel wordt 20 cm uitgegraven en er wordt een nieuwe betonvloer gestort.

In de voorgevel wordt een bestaande barst boven de toegangspoort uitgeslepen en gewapend. Van de andere gevels wordt alle mos verwijderd en de voegen tussen de stenen waar nodig hersteld.

De nieuwe structuur die in het gebouw wordt binnengebracht staat volledig los van de bestaande structuur, en wordt gedragen door de nieuwe betonvloer.

Ze bestaat uit een driedimensioneel grid van massieve houten balken en kolommen. Deze worden met sokkels aan de betonplaat vastgemaakt en onderling ingeklemd.

Dit grid wordt op bepaalde plaatsen ingevuld met lichte houtstructuren (vloeren, wanden, plafonds) die akoestisch en thermisch worden geïsoleerd. Het gelijkvloers kan ook gebruikt worden als tentoonstellingsruimte of auditorium, de betonplaat werd dan ook op deze bijkomende lasten berekend.

Red Star Line 3

De draagstructuur van RSL 3 blijft ongewijzigd. De lasten van het dak en de eerste verdieping worden afgeleid via balken en kolommen naar de bestaande paalfunderingen. Gezien het gebouw door haar oorspronkelijke functie reeds op voldoende overlast was berekend hoeft hieraan niets veranderd te worden. Op het gelijkvloers wordt de bestaande betonnen vloerplaat op volle grond vervangen door een nieuwe. Deze draagt niet op de paalfunderingen en heeft hier dus ook geen invloed op.

De gevels van het gebouw worden grotendeels bewaard.

Het deel tussen RSL1 en RSL3, dat in slechte staat was, wordt afgebroken. Hierdoor moet de zuidgevel opnieuw opgebouwd worden.

Enkele plaatsen in de gevels moeten behandeld worden tegen betonrot, zoals sommige lateien en afwerkingen van de gevel in beton.

Binnenin het gebouw gaat men op het gelijkvloers tegen de zuidwand een nieuwe ruimte creëren, omringd met een wand in zichtbeton. De ruimte op het gelijkvloers wordt volledig vrijgemaakt. Bestaande binnenwanden worden afgebroken. De zo verkregen open ruimte wordt opgevuld met wanden in prefab zichtbeton.

In de nieuwe structuren, die geen stabiliteitsfunctie vervullen, zal er telkens een print in het beton worden voorzien. Deze elementen worden in de bekisting aangebracht.

De vloerplaat boven de gelijkvloerse verdieping wordt behouden. Ze draagt over een afstand van 3 tot 4m, telkens in 2 richtingen en steunt op de balken die op de structurele kolommen zijn aangebracht.

De kolommen bestaan uit gietijzer en hebben een voldoende brandweerstand. Ze worden met cementmortel geïnjecteerd.

Op de eerste verdieping wordt de lichtstraat vervangen, aangezien die in slechte staat is.

Opnieuw moeten we op de verdieping eerst een aantal wanden afbreken.

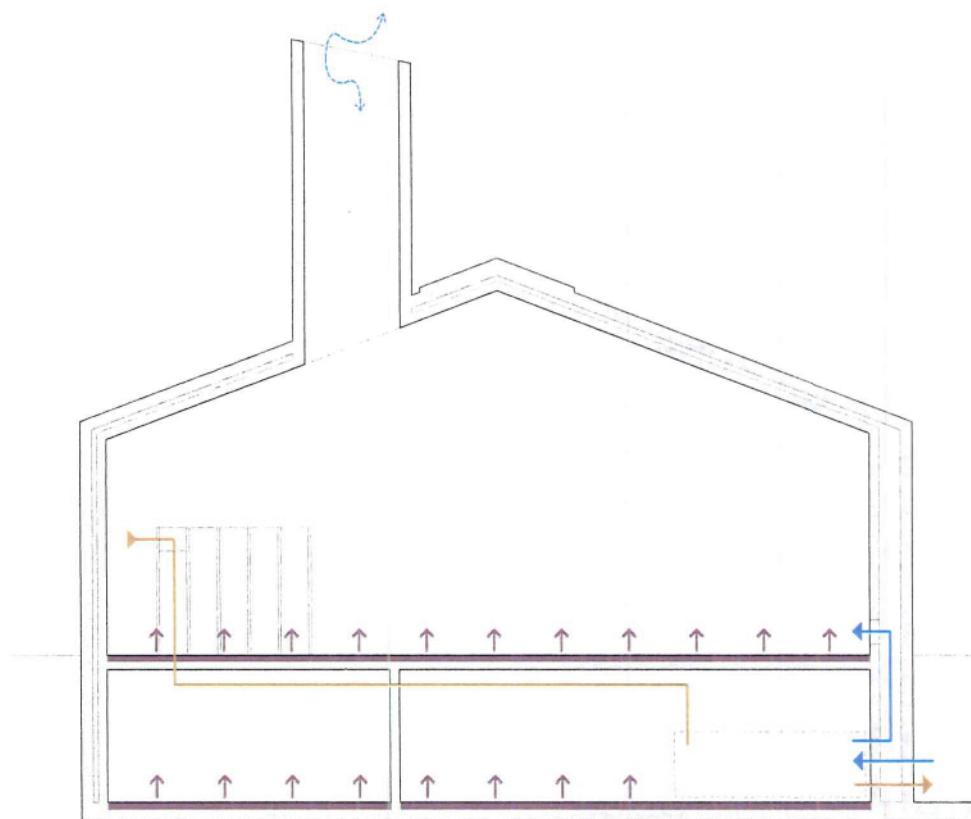
Na vrijmaking van de ruimte wordt er een betonnen bank aangebracht, eveneens in zichtbeton met prints. Er worden betonnen kolommen en borstweringen voorzien die geen enkele structurele functie hebben (louter voor de indeling van de ruimte).

De dakplaten zijn in goede staat. Er zijn echter wel plaatsen die betonrot kennen, deze zullen behandeld worden. De dakplaten dragen over een afstand van ongeveer 7m, tussen de gevel en de wanden aan de lichtstraat.

De dakhuid is in slechte staat of niet meer aanwezig, en wordt daarom volledig vervangen.

Sommige van de keramiek afdekkappen voor de muren zijn eveneens in slechte staat en worden vernieuwd.

Op het dak bevinden zich ook enkele schouwen die in slechte staat zijn. Deze worden afgebroken.

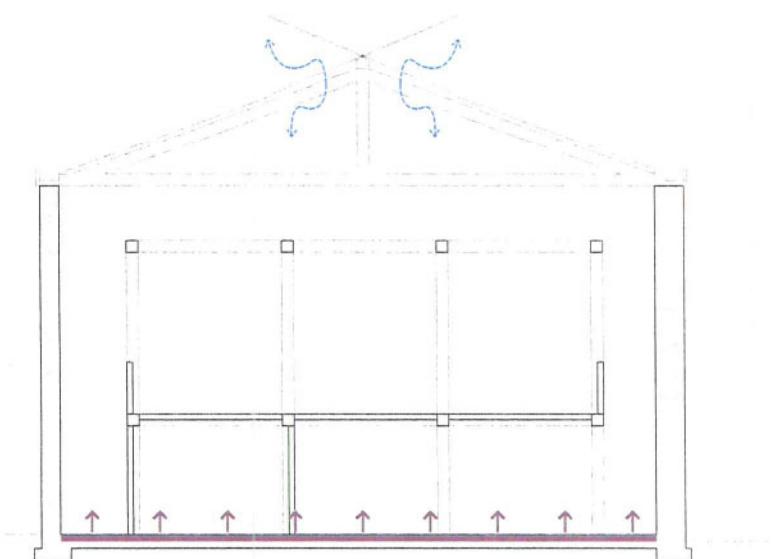


Red Star Line 1

In de kelder van RSL1 worden de belangrijkste technische lokalen van de site ondergebracht. In de stookplaats zorgt een condenserende ketel voor een energiezuinige warmteproductie voor de 3 gebouwen samen. Deze ketel voedt een verwarmingscollector die op zijn beurt de verschillende kringen voorziet van warm water via frequentiegestuurde pompen.

Aangezien hoofdzakelijk gewerkt wordt met vloerverwarming kan een energiezuinig laag temperatuursregime worden gehandhaafd dat ook de ketel toelaat optimaal gebruik te maken van zijn condensatietechniek.

In de kelder van RSL1 wordt ook een technisch lokaal voorzien voor de plaatsing van een luchtgroep voor de ventilatie van het gebouw, evenals een extractor voor de dampkap van de keuken. De verse lucht en de afblaaslucht wordt aangezogen en afgewezen in de zone tussen de gebouwen. De pulsie op het gelijkvloers van RSL1 gebeurt via muurroosters en de extractie via de elementen die in de ruimte staan. De warmte van de extractielucht wordt gerecupereerd om de verse lucht voor te verwarmen.

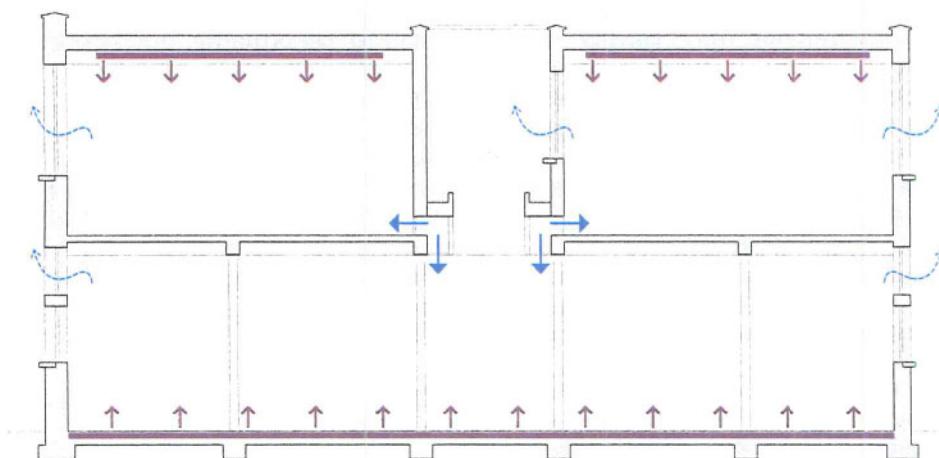


Red Star Line 2

Dit gebouw wordt verwarmd via vloerverwarming, gevoed vanuit de stookplaats in de kelder van RSL1.

De schaal van de ruimte laat een passieve ventilatie toe via een motorisch gestuurde opengaande dakramen.

Afhankelijk van het gebruik en invulling van deze ruimte kan de ventilatiestrategie aangepast worden aan de specifieke behoeftes van de gebruiker.



Red Star Line 3

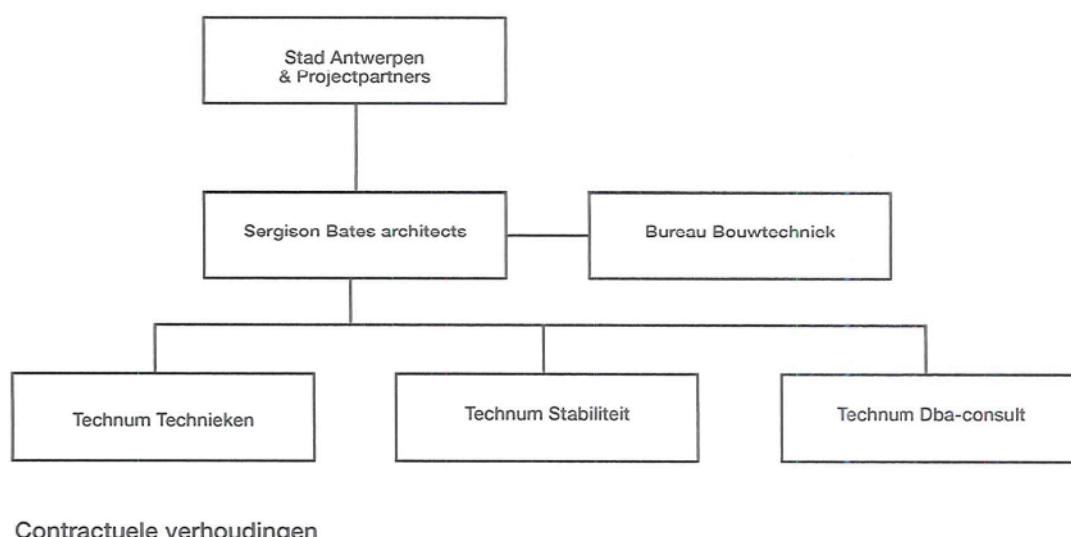
Het gelijkvloers van RSL3 wordt verwarmd met vloerverwarming; op de verdieping worden stralingsspanelen bevestigd tegen het plafond.

De ventilatie gebeurt via een luchtgroep die de lucht inblaast op beide verdiepingen via een luchtkanaal geïntegreerd in de flanken van de lichtstraat. De extractie gebeurt via roosters in de kopse zijwanden van de grote ruimtes. De warmte van de extractielucht wordt gerecupereerd om de verse lucht voor te verwarmen.

Ontwerpteam

Samenstelling

Sergison Bates architects, Londen, wordt ondersteund door een samenwerkingsverbanden met Bureau Bouwtechniek uit Antwerpen, en studiebureau Technum uit Gent. Deze internationale relatie bouwt verder op de ervaring die Sergison Bates architects met Bureau Bouwtechniek en Technum heeft opgedaan tijdens eerdere succesvolle samenwerkingsverbanden, zoals onderandere bij het restauratieproject voor de bibliotheek in Blankenberge en de uitbreiding van de Erasmushogeschool, RITS in Brussel. Dit team combineert een internationale ervaring en een interdisciplinair ontwerpproces, met een specifieke kennis van lokale bouwcultuur zowel tijdens het ontwerpproces als tijdens de bouwfase.



Architect

Sergison Bates Architects is een Londens architectenbureau dat ervaring heeft op verschillende schaalnivo's varierend van stedebouwkundige studies, woningprojecten tot publieke gebouwen. Het bureau heeft prijzen gewonnen voor gebouwde projecten en is succesvol in competities voor publieke gebouwen en stedelijke ontwikkelingen. Projecten worden regelmatig gepubliceerd tentoongesteld in het Verenigd Koninkrijk en daarbuiten. De aanpak van het bureau zoekt zich te engageren met de complexe natuur van de hedendaagse stad en suburbia. Zij zoekt naar nieuwe interpretaties van de alledaagse condities en het herkenbare. Alle projecten onderzoeken ideen door constructie en leggen aandacht op duurzame ontwikkeling.

Projectondersteuning

Bureau Bouwtechniek is een studie- en adviesbureau op het vlak van bouwtechniek, technische installaties in gebouwen en veiligheid op de bouwplaats. Als 'projectondersteuner' werkt BB als onderaannemer van de architect. Ten gevolge van dit samenwerkingsverband tussen de architect en BB ontstaat er een automatische controle en nauwe wisselwerking tussen de beide bureaus. Het splitsen van enerzijds de taken van de architect-ontwerper en anderzijds de taken van de architect-uitvoerder laat een verhoogde concentratie en optimalisatie binnen de respectievelijke verantwoordelijkheden en deelaspecten toe. De architect krijgt hierdoor de mogelijkheid om zich maximaal te concentreren op het ontwerp en het restauratiedossier. Anderzijds wordt de taak van kosten- en procesbeheersing als specifieke taak van Bureau Bouwtechniek geformuleerd en wordt als dusdanig eveneens als volwaardige discipline behandeld.

Studies

Technum is een multidisciplinair en onafhankelijk studie- en adviesbureau met expertise in een breed gamma aan activiteitsdomeinen. Het behoort vandaag tot de grootste studiebureaus in Vlaanderen en heeft als dochter van Tractebel Engineering een internationale reputatie. In zijn dienstverlening wil Technum geen stereotiepe oplossingen hanteren, maar telkens op maat van de klant werken: Duurzame ontwikkeling, maximale efficiëntie, hoge kwaliteit en een creatieve mentaliteit zijn dan ook kernbegrippen. Technum beschikt over de vereiste capaciteit, deskundigheid en creativiteit om een gespecialiseerde en totale begeleiding te verzekeren in tal van domeinen:



Samenstelling ontwerpteam:

Sergison Bates architects
 Jonathan Sergison, Partner
 Stephen Bates, Partner
 Jan Vermeulen, Project leader
 Susan Russell, Project architect
 project assistenten zijn nader te bepalen

Bureau Bouwtechniek
 Jan Moens, Zaakvoerder
 Toon Kalhofer, Zaakvoerder
 Ilze De Backer, Projectarchitect

Technum
 Werner Vits, Ingenieur structuur
 Johan Balcaen, Ingenieur electriciteit
 Wim Meyns, Ingenieur HVAC & sanitair
 Patrick Poncelet, Ingenieur Akoestiek

CV's zijn bijgevoegd in A4-document

Stabiliteit

Technum Structuur Engineering heeft als vooruitstrevend engineering- en adviesbureau een stevige reputatie opgebouwd op het vlak van structuur engineering.

Dankzij een jarenlange ervaring in de verschillende deeldomeinen (beton- en staalstructuren, grondmechanica, ...) staat de afdeling 'Structuur Engineering' garant voor een geïntegreerde aanpak binnen het totale projectgebeuren. Naast geotechnisch en grondmechanisch onderzoek, is deze afdeling ook vertrouwd met ondermeer onderzoek naar materiaalkeuze, vergelijking van structuurtypes, dimensionering van structuren en gedetailleerde meetstaten.

Akoestiek

Technum Dba-consult Geluid en Trillingen: Ook op het gebied van akoestiek, trillingen en structuurdynamica beschikt Technum over de nodige expertise. Dankzij een ruime internationale ervaring kan de klant steeds rekenen op vernieuwende concepten en een deskundige begeleiding.
 De afdeling 'Geluid en Trillingen' is actief in een breed spectrum van toepassingen in het domein van geluid en trillingen, gaande van geluids- en trillingsproblemen, geluidsisolatie, ruimte- en elektroakoestiek tot structuurdynamica en trillingsdiagnose. In elk van deze toepassingsgebieden slaagt een team van experts erin om door middel van analyse- en simulatietechnieken een oplossing op maat van de klant te vinden.

Speciale technieken

Technum 'Speciale Technieken' bestaat uit een multidisciplinair team van experts gericht op duurzaam en energiebewust ontwerpen en dit in nauwe samenwerking met de verschillende bouwpartners. De uitdaging bestaat erin om de technische uitrustingen op een zodanige wijze te integreren in het ontwerp dat ze een meerwaarde geven aan het gebouw. Een deskundig team van medewerkers en het gebruik van de meest moderne technologische hulpmiddelen, staan borg voor een optimale service op het vlak van elektriciteit, comfort en hydraulica, elektromechanica, fire safety engineering en energiebeheer.