Studio Sergison
Accademia di architettura
Università della Svizzera italiana

Spring Semester 2009
Schoolness

Contents

Introduction
Jonathan Sergison

This document is the second in a series that records the teaching activities of Studio Sergison at the Accademia di architectura in Mendrisio. In the commitment to publish the work produced during a semester, we hope the studio's activities will reach a wider audience than the school community.

The material presented in this catalogue is only a fraction of the studio's output during one semester. To show more would run the risk of diluting the intention of this undertaking, which is the creation of a teaching archive, the best examples of an exploration of a pedagogic theme.

In this instance the document records projects that explored the theme of 'schoolness'. It is acknowledged that this word does not exist in English, but it does express the essence of the question being put to the students, that is, where the schoolness of the school might be found.

Taking a real situation (which is always the intention of the work undertaken in this studio), students speculated on a conceptually ambitious solution for a new primary school in central London. In this task we were generously helped by the staff, pupils and governors at the Edith Neville School in Somers Town, particularly Sean O'Regan, the headteacher, and Esther Caplin, the chair of the governors. It is our hope that this generosity might be repaid and the projects presented here may be used as a form of test planning, a possible library of references for the architects that will soon design the actual building.

This document is structured in a similar manner to the first in the series, which looked at the Urban Picturesque. It contains two papers in the first pages. The first one explores the thematic content of the project and the semester's overriding interest, the question of schoolness. The second paper was given by Stephen Bates during the course of the semester and is entitled 'To use less'. This is a reflection on one of the themes students were invited to address in their work and attempts to present a critical definition of a term widely used and much abused in contemporary architecture: the notion of sustainability.

The next section comprises photographs of existing schools, all built in Switzerland in the last 40 years. They are a remarkable archive of this country's commitment to educational architecture – and frankly the list could have been much longer. Working in pairs, the students visited one of these schools and recorded it in plan and section. A crucial part of this research assignment was to make a photographic 'portrait' of the school in an attempt to record its character, and these photographs are included in the catalogue.

Hunstanton School
Alison and Peter Smithson
Photograph by David Grandorge

Georg Nickish's photographs present a careful and objective record of the urban situation in which the school project is located. Implicitly, they document a neighbourhood of central London that is both overlooked and uniquely special.

The site plan, drawn by Takeo Gondo, is an attempt to offer an urban strategy for Somers Town by reconsidering the urban situation in which the new school is sited. It should be noted that this drawing proposes a series of modest interventions, building upon the existing and gently adjusting it.

The largest part of this document is devoted to the students' work. As already acknowledged, this is presented in a very edited form, placing emphasis on the plan which was originally drawn at 1:100 scale. This is supported by a small image of a 1:500 model to allow for a comparison of the projects' formal characteristics. While, where appropriate, additional material is shown, the overall emphasis on the plan draws attention to the typological characteristics of each project.

During the course of the semester Irina Davidovici delivered a lecture that offered a definition of type and typology. The intention is to present this in the next document. While this means that it will be out of sequence, the paper is of great interest and will be relevant for many semesters to come.

Finally this document is not only an archive of the studio's work but also the catalogue for an exhibition that opens at the German Gymnasium at Kings Cross on 16th March 2010, in line with our commitment to bring the work back to the place it is intended to serve, in this case Somers Town in the London Borough of Camden.

Scuola Materna Chiasso
Flora Ruchat-Roncati, Antonio Antorini, Francesco Pozzi 1964

Schoolness

Jonathan Sergison

This paper attempts to rehearse the issues involved in designing a school and is an edited version of a text that formed the brief written at the start of the Spring semester 2009. The aim was to engender a critical and questioning attitude by posing a series of questions on the notion of 'schoolness'. The issues addressed lie beyond the constraints of regulation and the discipline that applies when such a task is undetaken in practice. Instead, it places emphasis on ideas and concepts. Ultimately it prioritises a phenomenological approach to the design of a school.

A school is a building we all have some experience of. Most of us spent a large part of the first years of our lives in one. The particular character of the school you attended would have created a lasting impression and contributed to make you the person you are now. These memories should remind you of the responsibility that lies at the heart of this project and the architectural possibilities we are inviting you to explore.

When looking at the photographs of a classroom of an existing school, one is struck by the sense of personalisation that is abundantly displayed. The teacher and children are present by way of their own possessions and creative production. This leads to an understanding that, as architects, our responsibility in designing a school lies primarily in making a very carefully arranged background. We need to be accurate in judging the size and special character of a room, the position and detailing of its doors, the size of a window and its height in relation to the inside and outside. We should, however, be interested in the feeling a room might have. Our work is not a neutral undertaking. In fact it is profoundly loaded with responsibility. We need to ask ourselves how the boundaries and thresholds between rooms with differing programmes should be arranged, how the school can feel open and communal and how it can support concentrated and focused activity.

Looking at the photograph of an existing classroom, you could conclude that it is not necessary to make colourful interiors, because the pupils and teachers provide colour with the objects they bring into a classroom. In a way, making brightly coloured interiors is a slightly patronising way of dealing with the interior of a school and, at worst, can create overexcitement.

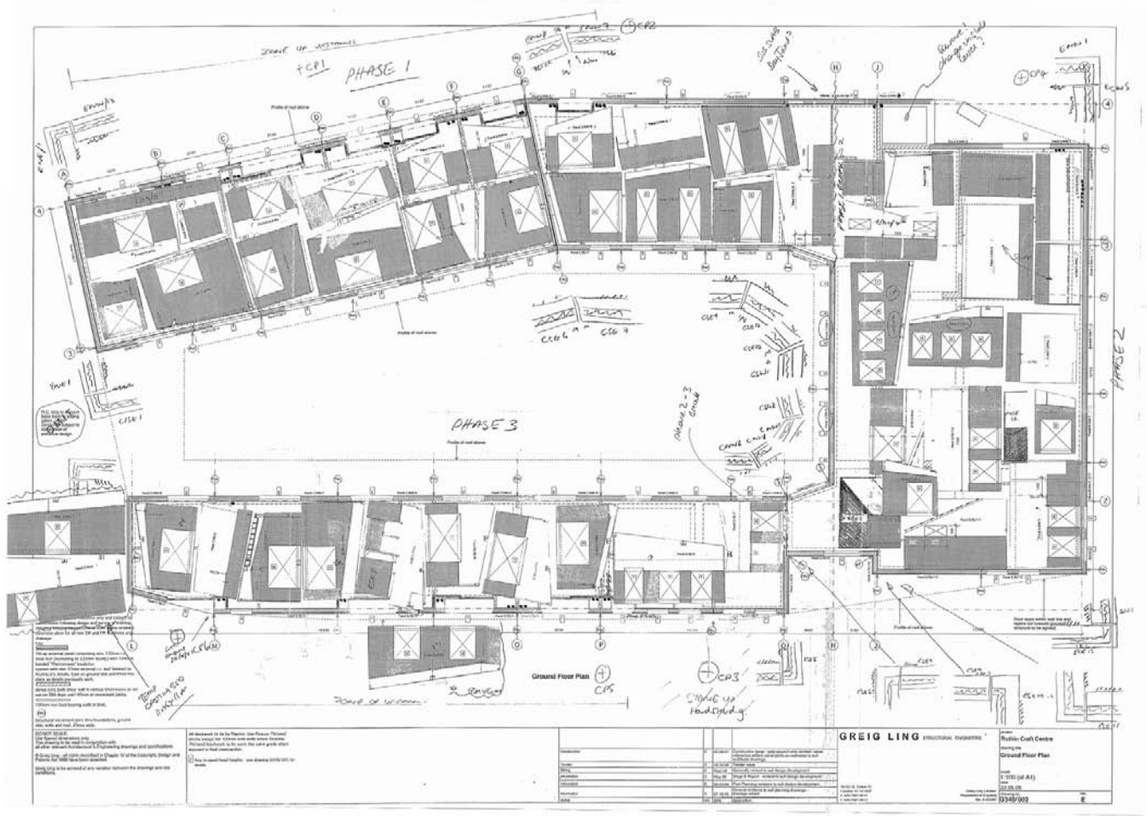
We should also remember that teaching methods are constantly changing and that the technology that supports teaching evolves, too. Care needs to be taken in ensuring that the infrastructure of the school is capable of accommodating change. Some of the best schools in London are over 150 years old, and their success lies in the generosity and flexibility of the spaces they provide. They are simply well organised rooms. A modernist attitude to flexibility has proved, at least in part, to be a failure, as it proposed a form of flexibility in classrooms that requires intervention on the part of the users, such as the need to move screens or the employment of mechanical technology that requires constant servicing. The Edith Neville School, in it existing form, is to some extent an example of the failure of this programme.

When designing a new school, you should imagine the sound of walking along a corridor, or even the sound of twenty children doing this. How will the school smell? Can you still remember the smell from your own primary school many years later? What will spaces feel like in the winter and summer? What is the school's relationship to its neighbourhood? How will the school function as a school, and at other times as a community resource? When proposing a school building, it is important to draw upon your memory of being in primary school and to work consciously with atmosphere and feeling before you employ technique and procedure.

In many ways, the best school could be described as an oversized house. Like a house, it is made of rooms with clear and flexible uses. But a school is a public building that requires a careful series of thresholds and precise management of its sense of openness.

As a building, a school needs to comfortably house a lot of 'little' people as well as a number of 'big' people. In other words, it needs to cope with the varying scale requirements of its users in terms of door handle height, furniture size, window height etc. A school needs to be a place that enables a child's imagination to run freely. The classroom and playground are spaces where a myriad social interactions will occur. The setting in which these character-forming incidents take place should not be imposing.

As a building type, a school contains many spaces that are prescriptive, where the activities or functions they are dedicated to are clearly connoted. It also works with a strict timetabling and programming of activities on a daily, weekly and term-time basis. While this calendar is highly determined, a school building needs to allow for flexibility and improvisation, as well as a clear structure of use.



Ruthin Craft Centre
Sergison Bates architects
2005–08
Working drawing setting out
position of tilt-up concrete panels

To use less

Stephen Bates

A young man in his thirties walks by me in the street, a bag slung on his shoulder. The strong graphics catch my attention. ‘Use less’ it states, in ink block sans serif that fills the face of the bag itself. It reminds me of the ‘Save it’ campaign of the mid 1970s in which the government sought to raise public awareness of energy consumption during the dark days of the worldwide energy crisis. In those days a light switch with the logo stamped across it became the symbol of a shift in lifestyle, which I remember my father took very seriously. As I reflect on the message on that young man’s bag – ‘use less’ – I find its provocation compelling.

This paper attempts to grapple with sustainability, a term so loosely defined, and generally dulled by overuse, but which encompasses issues that have a very real impact on our lives and the future of the planet. For humans to live sustainably, the earth’s resources must be used at a rate which allows them to be replenished. In modern life we are presented with evidence that we are living unsustainably and that a herculean effort is required to return our use of natural resources to within sustainable limits. Photographic images are spread across the world by scientific groups and news agencies and the mass of data produced by scientific research is packaged and re-directed towards the general public. These data are inevitably subject to manipulation and propaganda for better or worse. For example, I could begin this paper with what I understand to be fact, that in 2006 buildings used 40% of the total energy consumed in the US and Europe. I have no way of knowing whether this is true, just as I cannot be sure that the information presented by Al Gore in his compelling film ‘An inconvenient truth’ is accurate. However I am moved by both. Such information engages my consciousness and motivates me to understand my position in relation to sustainability both as a citizen and as an architect active in the development of a civilised world that can be comfortably occupied by my fellow human beings.

Sustainable development can best be defined as ‘that which meets the needs of the present without compromising the ability of future generations to meet their own needs.’ In the context of architecture, a sustainable building is the outcome of a design which focuses on maximising efficiency in the use of resources such as energy, water and materials, while reducing their impact on health and the environment during the building lifecycle through better siting, design, construction, operation, maintenance and removal.

And yet this description seems to me to lack something in its pragmatism and objectivity. For I believe the source of sustainability to be ultimately ethical,

requiring an awareness of our interdependence and place in the world. Much of our lives' circumstances lie outside our control: we have no way of choosing the place and the conditions in which we come into the world. You and I have been fortunate to be born and raised in one of the more affluent parts of the world, but one consequence of this good fortune is that we have difficulty in understanding the plight of those for whom scarcity and depletion are the everyday reality that results from the imbalance in production and wealth.

Manuela Prfunder's published thesis of 2000 entitled 'Neotopia' is both curious and shocking in its presentation of an imaginary world in which everything has been redistributed to achieve radical equitability. As everyone has the same rights, all are entitled to claim a just share of the earth's aggregate resources. In a world of 6.7 billion people on a land mass of 149km^2 (29% of the earth's surface) and 361km^2 of water (71% of the earth's surface) each individual is entitled to use one six-billionth of the world's production. Consequently, with property entitlements being equal for everyone, each of us would own a 240×240m piece of ocean and a 157×157m parcel of land. With this comes our fair share of forest, land, animals, ice and desert. On the basis of material provided by NASA, the United Nations, the International Bank for Reconstruction and Development, the National Geographic, The World Bank, UNICEF and Bill Gates amongst others, Prfunder speculates on the apportioning of resources and the consequences this would have on life conditions: for example 8.5kg of meat would be available per person per year. This figure takes on stark significance in the light of the statistics for annual meat consumption per individual, which in 2002 was 87kg in Switzerland, 110kg in the USA and 1kg in India. In Prfunder's scenario, we would be able to drink a cup of coffee once every 60 days and would suffer from malnutrition for the same number of days each year. For a quarter of our lifetime (i.e. 16 years, as we would live to the age of 64) we would be able to count on adequate resources. During the remaining period, i.e. three quarters of our lives, we would not be able to meet our basic needs in terms of shelter, food and clothing. For 154 days a year we would have no access to sanitary facilities, no running water for 35 weeks a year and no clean drinking water for 13 of these weeks. We would be able to obtain a new pair of jeans every 70 years and a new pair of leather shoes would be crafted for us every 19 months.

I find this fictional scenario a sobering context in which to consider a position on sustainability, engaging as it does with human dignity, scarcity, distribution and access to resources. The emphasis upon the ethical dimension of sustainability invites a 'spirit of service' to the greater whole and requires us to think beyond our everyday concerns. It calls for an adjustment in our expectations of what we think is rightfully ours and a reconsideration of notions of ownership and entitlement. It reminds us that we are members of a larger whole, that our needs are the same as those of others and brings into sharper focus issues regarding the use of the limited natural resources available.

In recent years, a more integrated approach to sustainable architecture has led to the adoption of industry codes and regulations that seek to foster and enforce sustainable action. Building regulations have developed over time to protect and enhance quality of life through responsible acts of construction. These regulations are implemented through codes which are predominantly prescriptive in nature and almost always reactive. Currently, we are experiencing the rather clumsy adoption of sustainable strategies within building regulations. In 2006 the Communities and Local Government Code for Sustainable Homes was heralded as a step-change in sustainable home building practice, introducing a national standard for key elements of design and construction that affect the sustainability

of a new home. It was followed in the same year by the Building Regulations new 'Part L – Conservation of Fuel and Power' setting out new energy performance requirements with an ambition to reduce carbon emissions by 25%. Both documents seek to meet the requirements of the EU Directive on the energy performance of buildings. Other targets set out in documents such as the BRE (Building Research Establishment) Green Guide to Specification and Sustainable Energy are fast turning from guidelines into prescriptions for performance and specification. At this early stage of adoption by the industry, these codes are often treated as another abstract measure, and energy efficient devices are regarded as mere adornments to standard construction norms. All too often the volume house builders pay lip service to requirements for sustainability by adopting add-on elements such as wind turbines, photovoltaic panels and green roofs, all of which have become recognisable to the public as embodying green credentials. In reality, the very basis of the design of these projects often negates the spirit of the three principles of sustainability, with deep plan, single-aspect apartments accessed from isolated lift cores in over-dense developments, located far from the local transport infrastructure.

However, the current state of affairs can be seen as part of an ongoing learning curve which will, in time, result in sustainable design principles becoming embedded in the process of development. As regulations become more stringent and the principles they are based on are better understood and accepted, the process of design should change and adapt to provide better strategic and spatial thinking at the outset.

Some existing buildings, though not necessarily built to implement the sustainability agenda, offer inspiration for a holistic approach to sustainability where the social, economic and energetic aspects are integrated with cultural concerns, in a less superficial approach to sustainability.

The school in the Graubunden has no heating technology whatsoever. It relies purely on solar radiation coming in through the windows and being stored in the solid floors, walls and above all in the ceilings. Joist-like concrete ribs improve the distribution of the mass and therefore the heat absorption of the ceilings. To enable a maximum of sunlight to be reflected onto the ceilings, deflecting louvre blinds are necessary on the inside of the windows. Depending on the angle of the slats, this activates heat absorption in the ceilings and also improves natural illumination to the back of the rooms, which in turn achieves a significant reduction in the energy used for lighting. The concrete ribs support the floor decks above and at the same time act as highly effective acoustic diffusers. These ribbed ceilings are recognisable to those living in the area as they are similar to the traditional beamed ceilings of houses in the Grisons. Thus this single structural feature provides added economic, energy and cultural value with minimal formal extravagance.

A stop point on a highway near Liasanden in Norway has been made within an old pine forest. A new gravel road with places to stop and park has been created within the trees. Gravel has been poured to level out and define a territory between the trees, wich resembles a riverbed. Varying the gravel density from the bottom up has allowed the trees and vegetation to remain unaffected. Indeed, no tree has been removed; instead, the stop points and driveway have been set out to ensure that cars turn around the trees, and those most vulnerable are protected by rope strapping. In this way a temporary settlement for travellers and tourists has been made with minimal intervention, making a break on a long journey a memorable episode.

The giant museum in the Bavarian capital had been a victim of the Allied bombings in 1944. The central bays of the south facade were destroyed, as were the internal spaces back to the north wall. In the mid 1950s the architect made good

the facade using reclaimed bricks from other bombed sites in the city, emulating the form of the neo-classical stone facade that had stood there before. In so doing, he created a memorial to the ravages of war and commemorated the 'rubble women' who, with their bare hands, had begun the reconstruction of their homeland. He also gave powerful architectural expression to a form of reconstruction driven by the idea that the original structure should be emphasized in its spatial context and original materiality, and that the new should reflect what has been lost without imitating it.

When commissioned to refurbish the town square, Place Léon Aucoc in a working class district of Bordeaux, the architects questioned the extent to which they should intervene. In its existing condition, they found that it possessed the beauty of what is obvious, necessary and adequate – its meaning emerged directly. People seemed at home there: a delicate balance existed, a feeling of harmony and tranquillity that had built up over many years. The few inconveniences observed did not merit drastic changes. Since the square's very qualities derived from its authenticity and lack of sophistication, the architects merely proposed some simple and rapid maintenance works (replacing gravel, cleaning the ground surface more frequently, trimming the lime trees), sufficient for improving the use of the square and for satisfying the residents. Much of their energy was spent on convincing the city planners to do so little.

The external walls of the small gallery of contemporary art in the small southern German town are built entirely of English bond brick, 320mm thick. The width of the vertical mortar joint is three times the height of the horizontal joint, so that a weave-like effect is produced in the masonry, which is visible both inside and outside. A balanced, constant indoor climate is achieved without any complicated engineering or artificial air conditioning. Warm water (at 40°C) is circulated through simple copper piping integrated into the base of the walls. The thermal storage capacity of the walls ensures even radiation of the heat energy to the inside, along the lines of the hypocaust system of central heating used by the ancient Romans.

The small house in a residential suburb of Bordeaux is built inexpensively not by making the spaces within it small and modest, but by providing generous usable space by simple means. A large proprietary conservatory structure doubles the size of the small interior volume. Together, varied sets of spaces are arranged with great flexibility, so that the house can be converted from its most closed to its most open state according to the need and desire for light, transparency, intimacy, protection and ventilation. The habitable part of the house can be varied according to the seasons, from a smaller area (living room and bedrooms) to a larger surface, by integrating the entire garden in high summer. The architects have used modest materials in the construction to minimise cost, and have used this 'saving' to create generous spaces which are unusual and unexpected for such a limited budget, and therefore constitute a perceived luxury. The cost of the 185m^2 house was 55,500 EUR, giving an average cost of 300 EUR/m^2.

The prototype apartment building project currently being prepared by a local housing association for a site in Winterthur looks at first sight to be a modest four-storey apartment building of individual homes and, indeed, this is how the building could be organised. However this example follows an alternative ambition to house individuals aged 50 or over within a communal building. Separate single bedroom studios are arranged four per floor. Internal partitions with sliding doors may be positioned within the studio to suit individual preference. Rooms for visiting guests on short stays and a utility room are dispersed on upper floors and a large communal kitchen and living room with fireplace and external terrace are located at ground floor. Each room has access to a covered balcony. The stair and lift core are placed to facilitate change in the internal arrangement to the layout of a more conventional apartment building, but at least in the medium term, this building will support the communal life of individuals who choose to live together in a mutually supportive way.

In each of the examples I have described, what is evident is an economy of means that is not achieved at the cost of minimizing space or compromising the richness of the atmosphere. Instead, the potential of a space, an element, or a material is optimised – as in the multiple role of the concrete beam in the school, for example, or in the spatial structure of the art gallery, the re-use of material and conditions 'as found' at the museum and in the square, the expansion of space in the family house and the combining of resources in the communal apartment building.

It is probably no coincidence that I have been drawn to address these issues in the current economic environment. In the words of Rahm Emanuel, Barack Obama's Chief of Staff: 'a crisis is a terrible thing to waste.' I wonder whether as architects we can be inspired and motivated by the challenge of economic and environmental uncertainty? Do we have the courage and the belief to 'use less'?

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3 4

1
School building, Vella, Switzerland,
Bearth & Deplazes 1994–97

2
Liasenden mountain road project,
Sognefjell, Norway,
Jensen & Skodvin 1977

3
Alte pinakothek renovation,
Munich, Germany,
Hans Döllgast 1952

4
Place Léon Aucoc, Bordeaux,
France, Lacaton & Vassal 1996

5 6

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5
AA Galley, Marktoberdorf,
Germany, Bearth & Deplazes
1998–2001

6
Latapie House, Floirac, France,
Lacaton & Vassal 1993

7
Collective apartment prototype
for GESEWO, Winterthur,
Switzerland, Hearle Hubacher
und Hofmann 2008

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9

1
Schulhaus Paspels,
Valerio Olgiati 1998
(previous spread)

2
Scuola Materna Riva San Vitale,
Aurelio Galfetti, Flora Ruchart-
Roncati, Ivo Truempy 1972

3
Schulhaus Churwalden,
Peter Zumthor 1982

4
Scuola Elementare Stabio,
Tita Carloni 1974

5
Scuola Elementare Locarno,
Livio Vacchini 1978

6
Schulhaus Mattenhof Zurich,
B.E.R.G. Architekten 2004

7
Schulhaus Vella,
Bearth & Deplazes 1998

8
Schulhaus Duvin,
Gion A. Caminada 1995

9
Scuola Morbo Inferiore,
Mario Botta 1977

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1
Courtyard
Ossulston Street Estate

2
Cranleigh Street

3
Aldenham Street

4
Charrington Street

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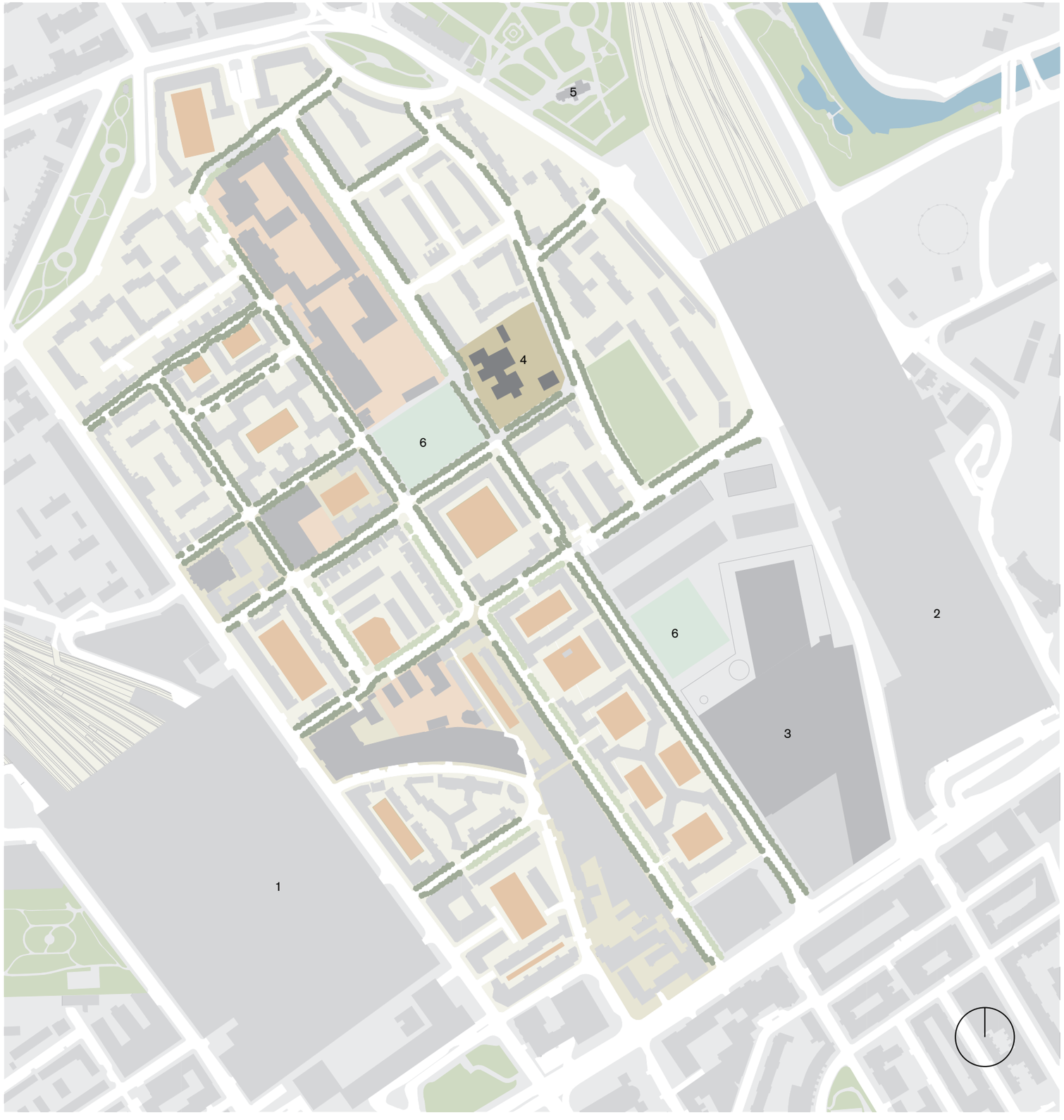
5
Ossulston Street Estate
(facing page)

6
Penryn Street

7
Courtyard
Ossulston Street Estate

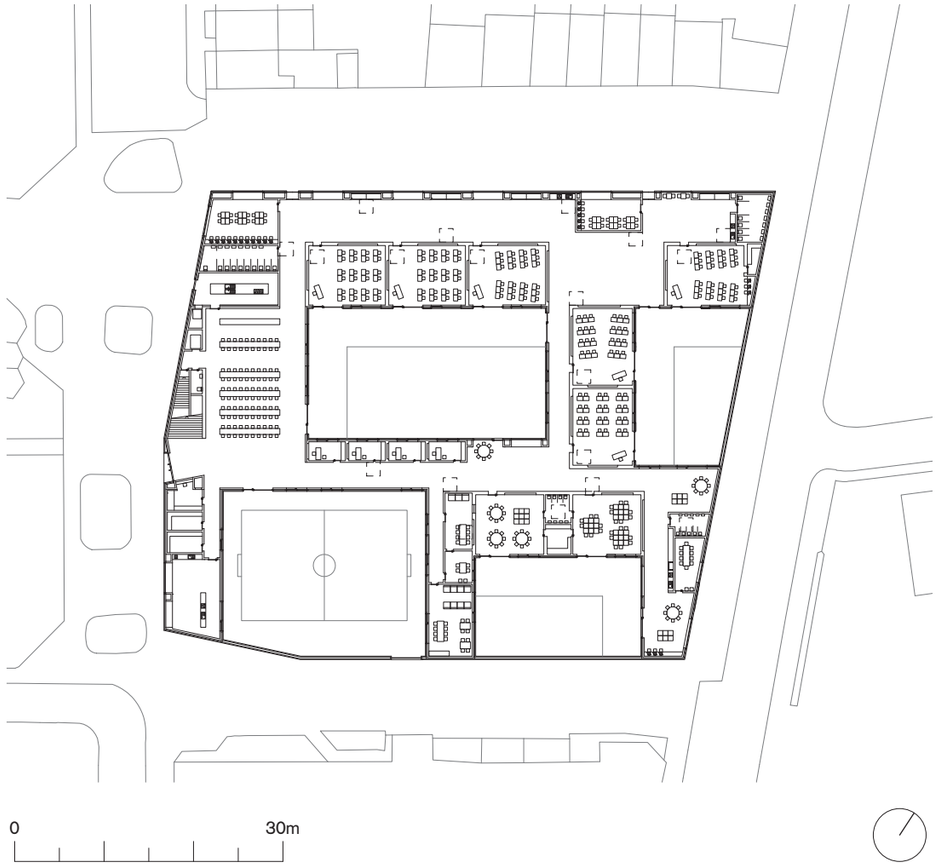
Site plan



1 Euston Station
2 St. Pancras Station
3 The British Library
4 Edith Neville Primary School
5 St. Pancras Old Church
6 New public square

Area of public use
Area of residential use
Area of mixed programme
New semi-public amenity
Existing tree lined streets
New tree lined streets

0 200m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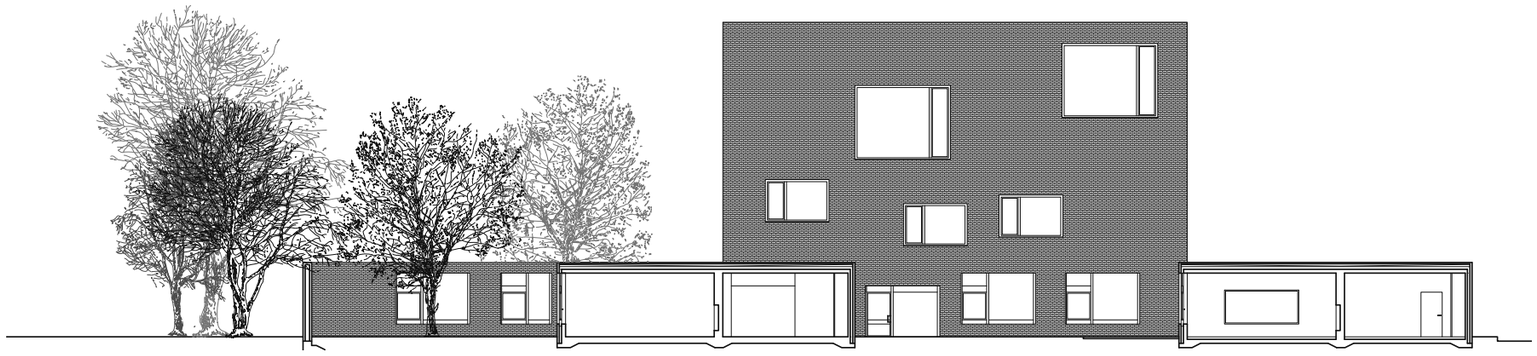

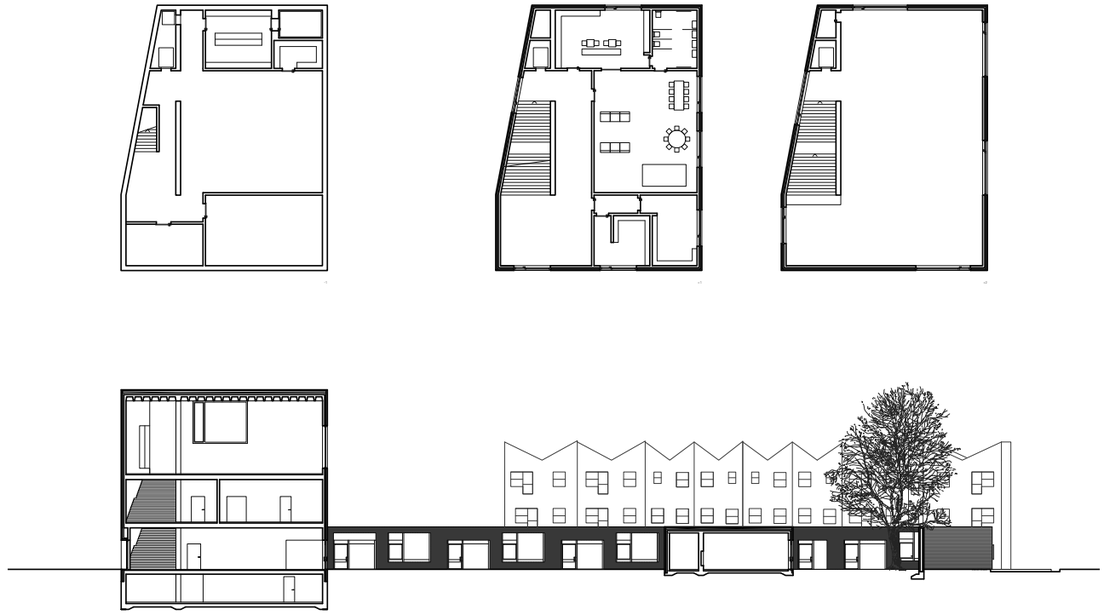


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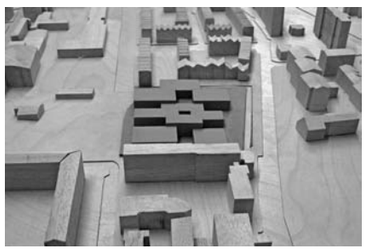
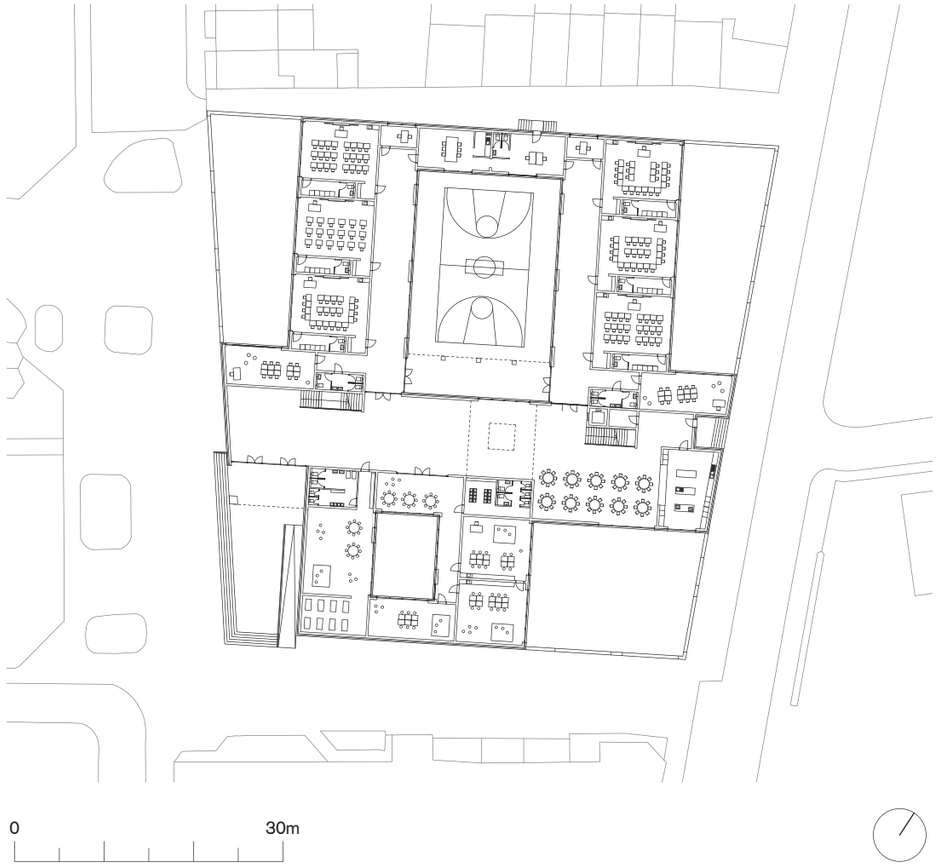
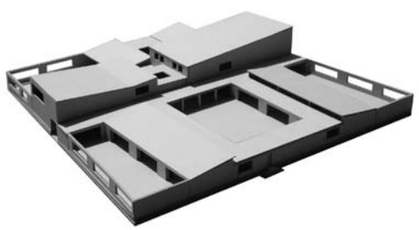
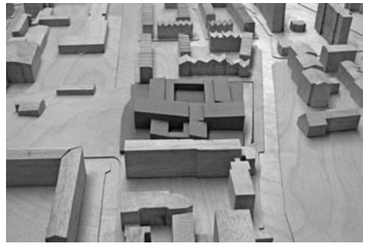


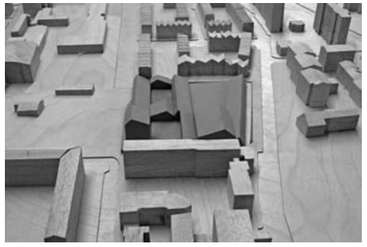
Anna Bernardi







Chiu Shao Feng
Oana Armina Alexandru

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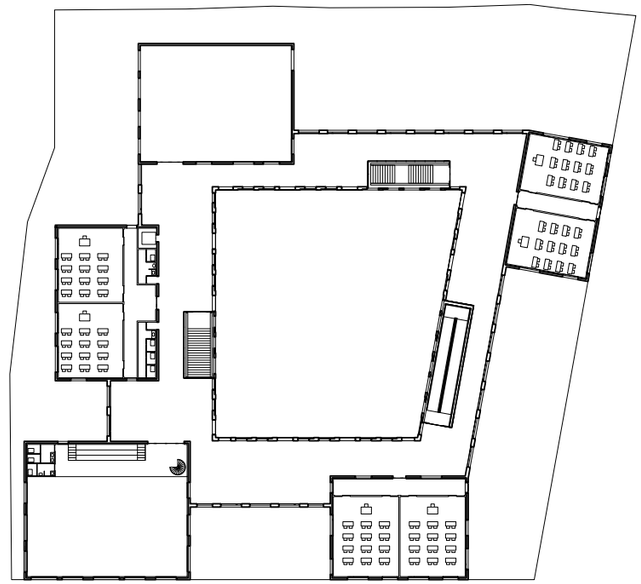

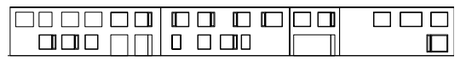


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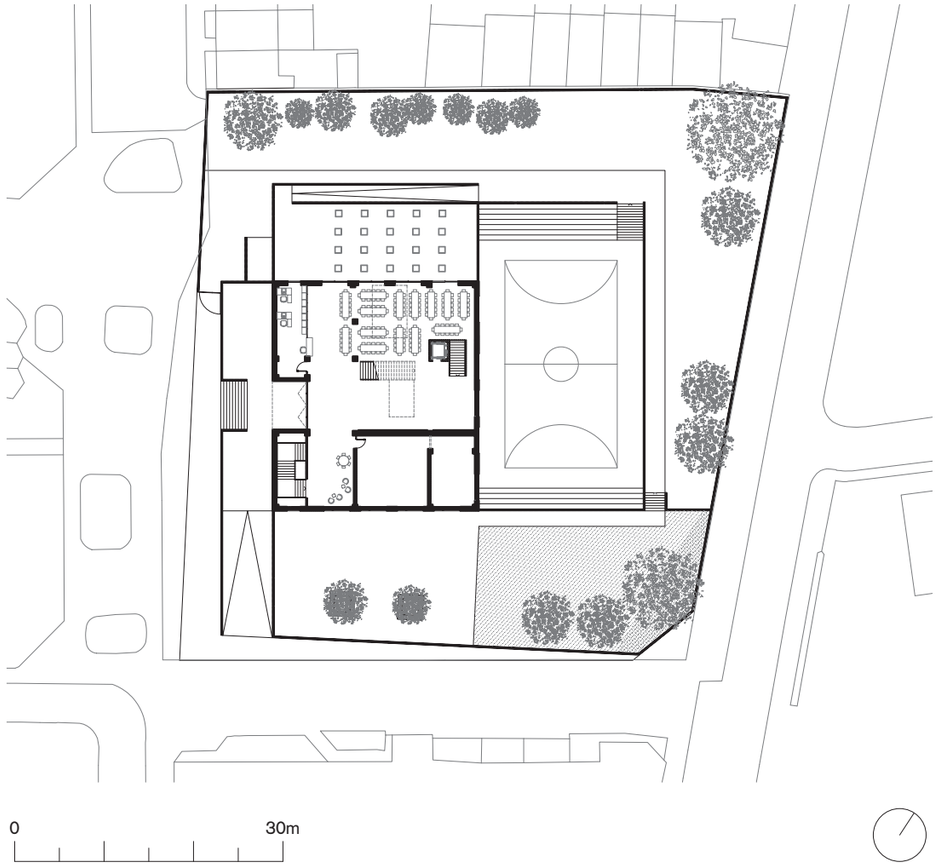
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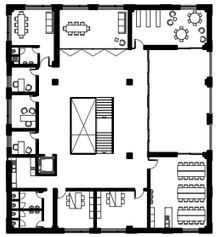
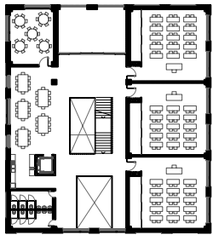
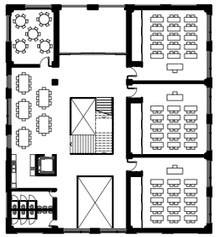
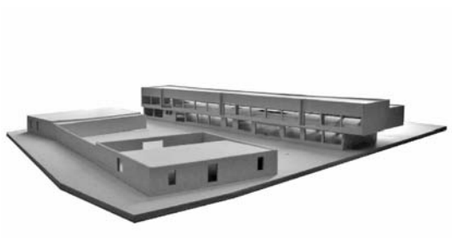






Luis Gonzalo Arias



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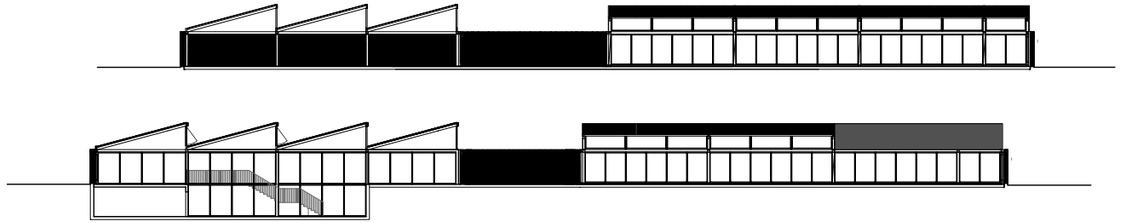

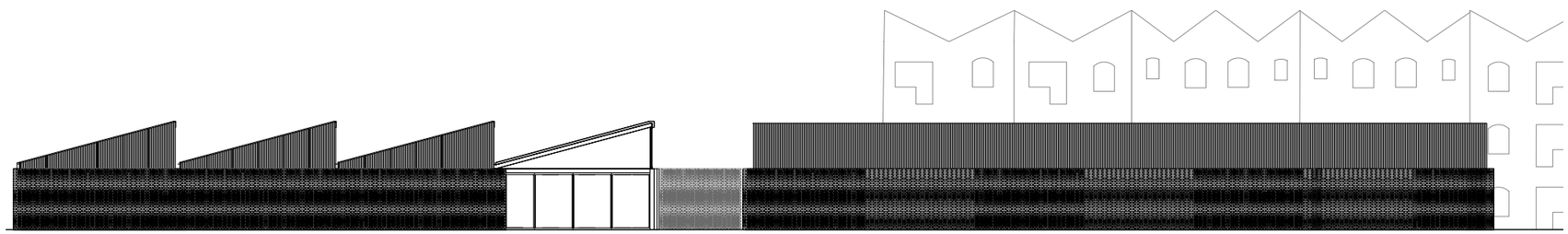

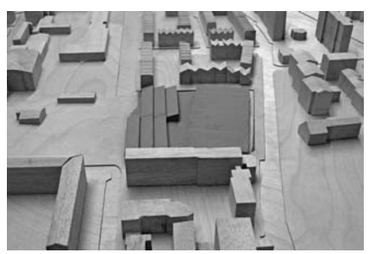

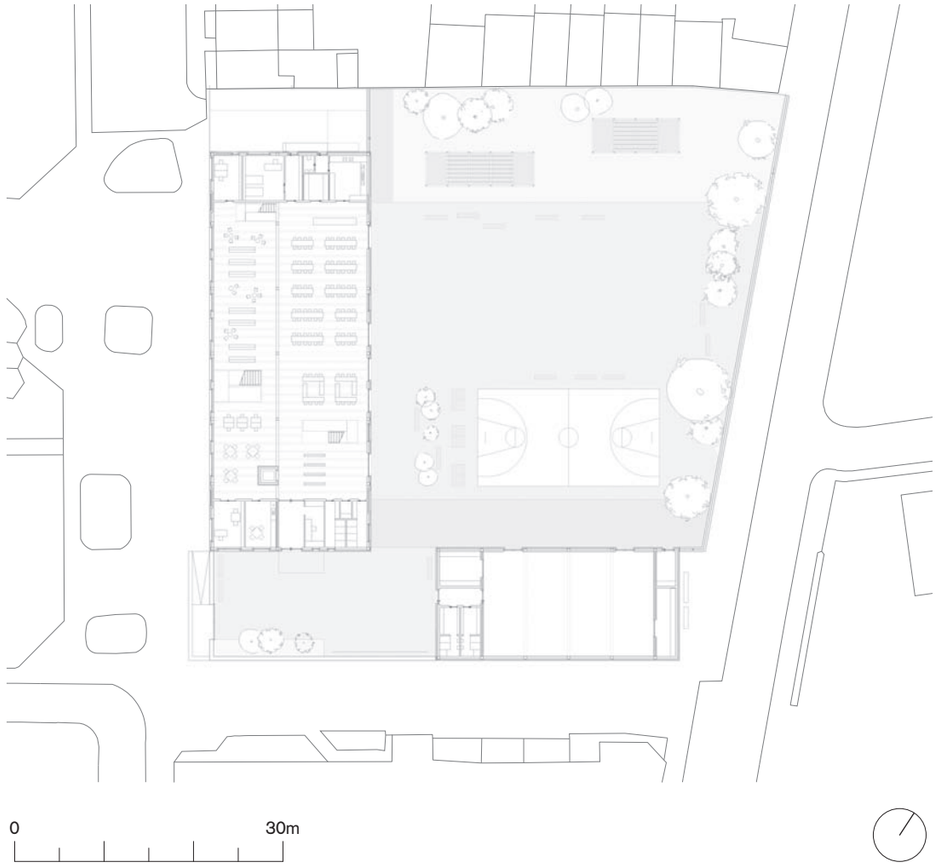
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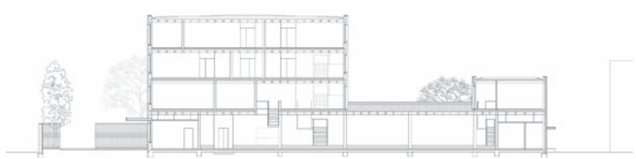

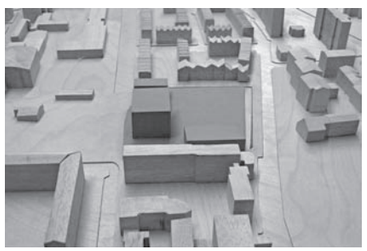

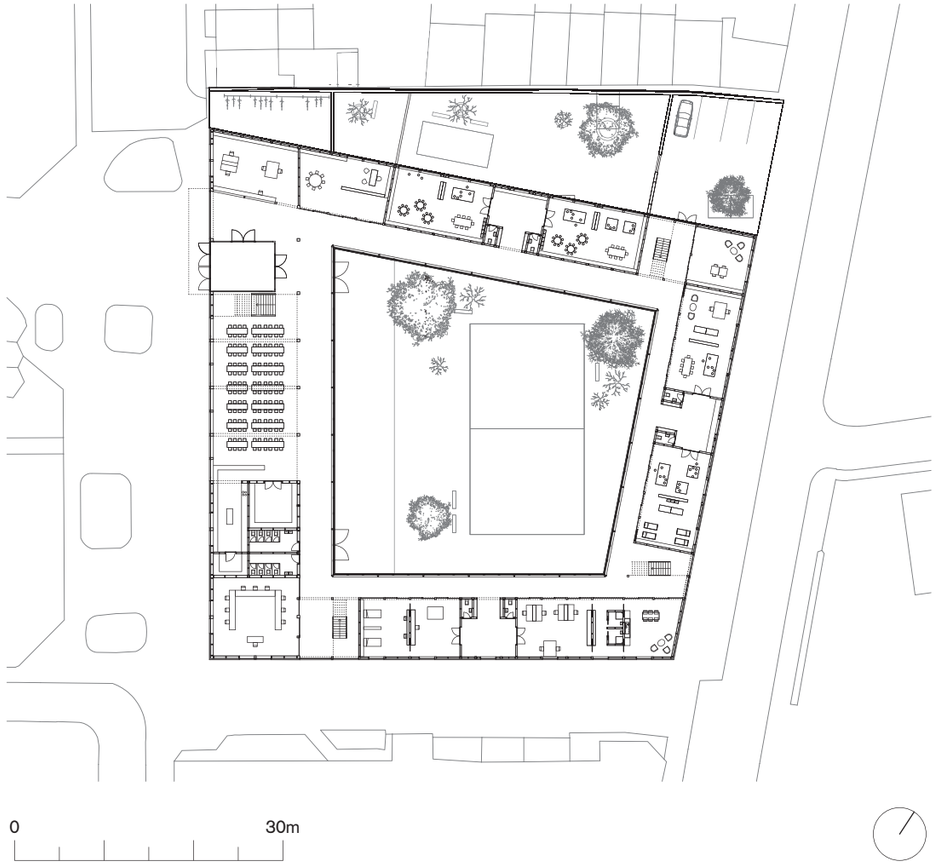
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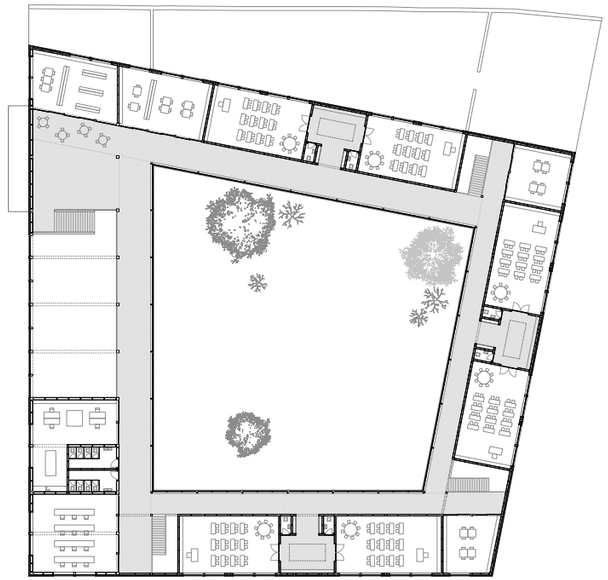
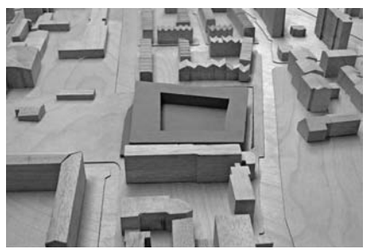
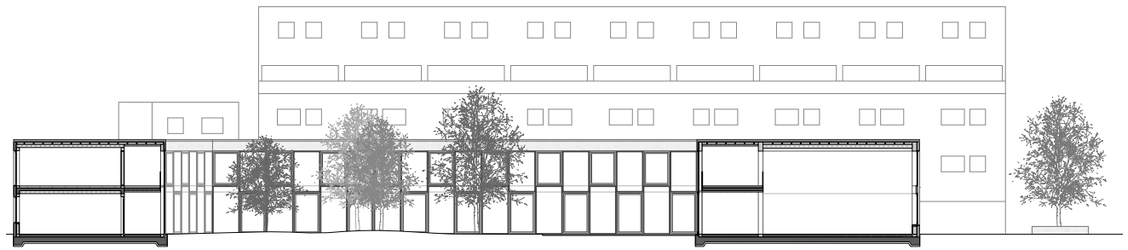
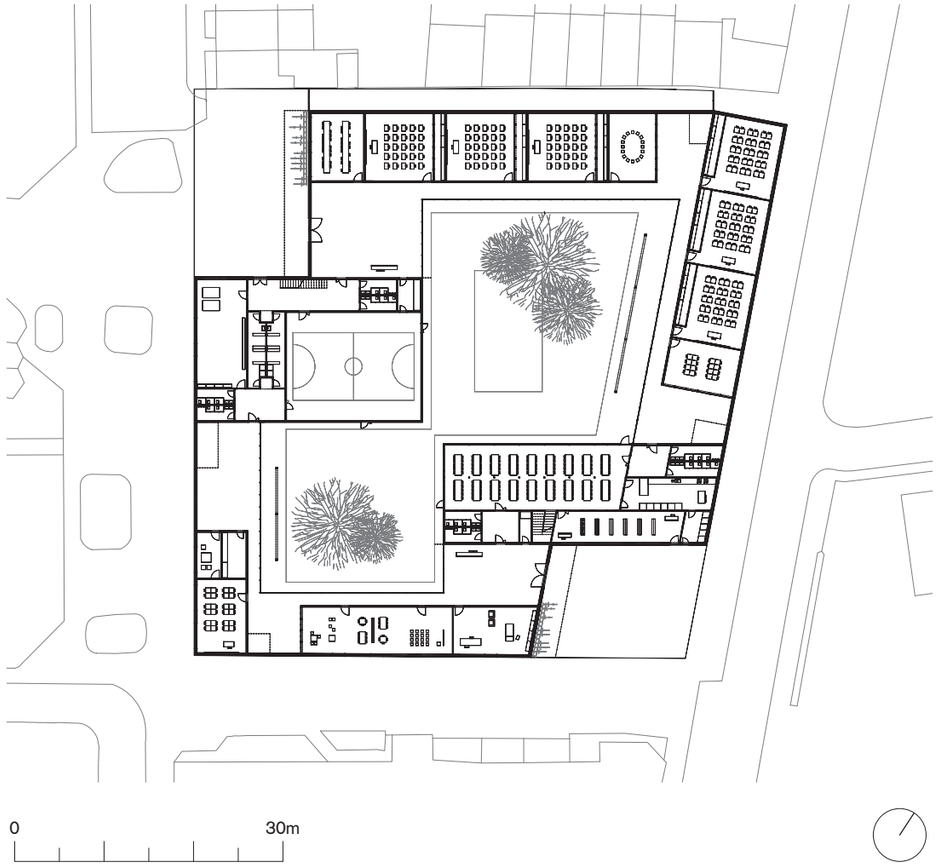


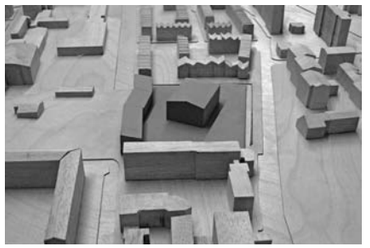


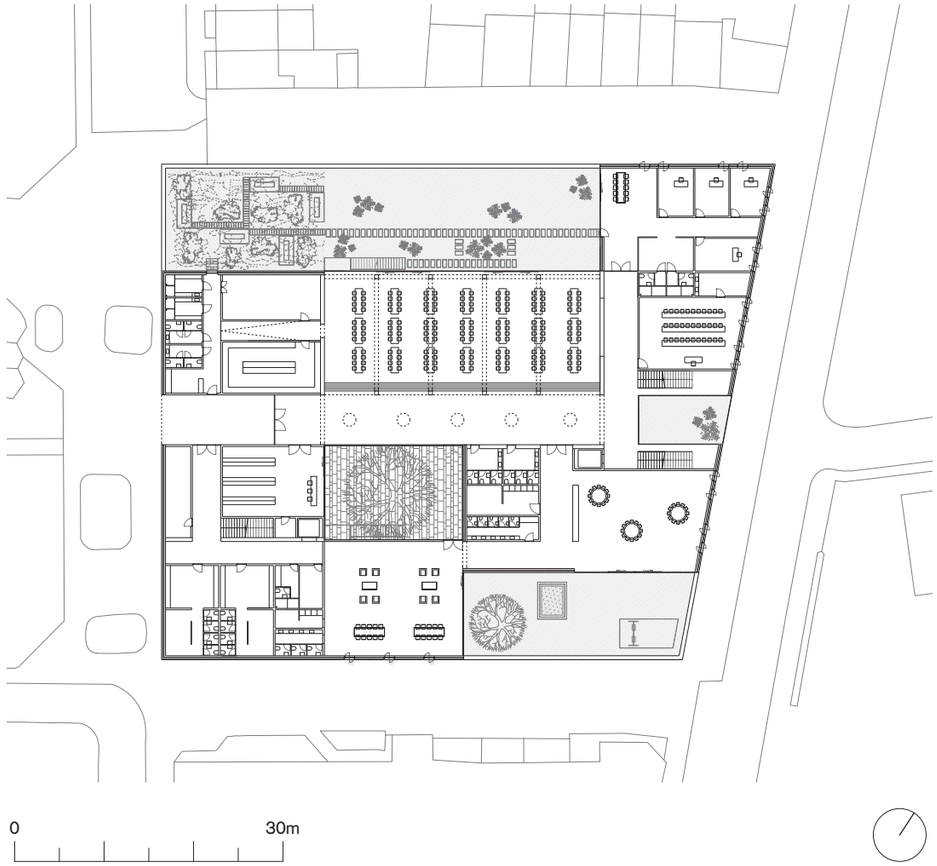


Samuele Squassabia



Shane Dunlevy

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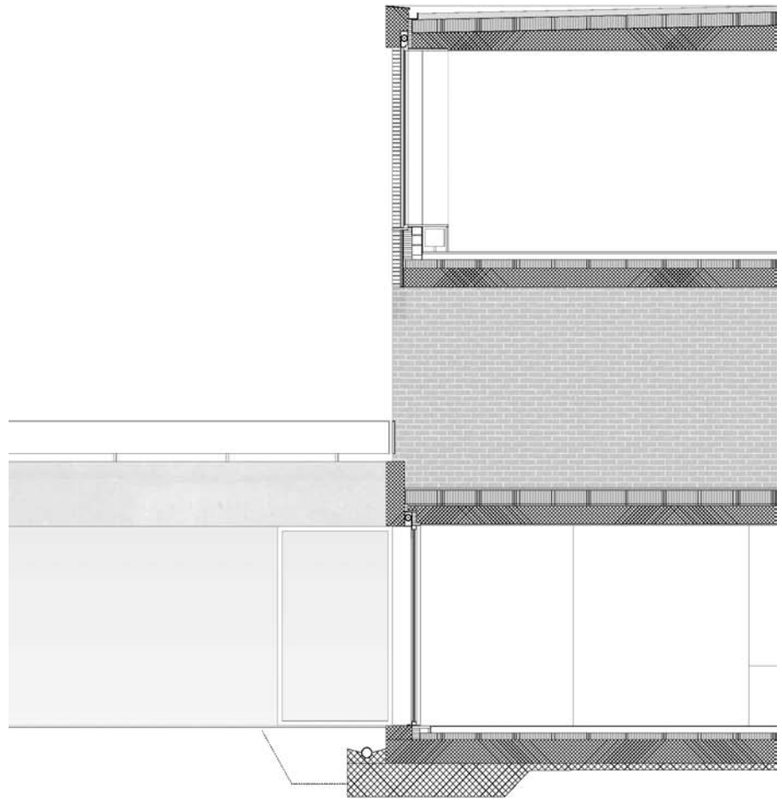

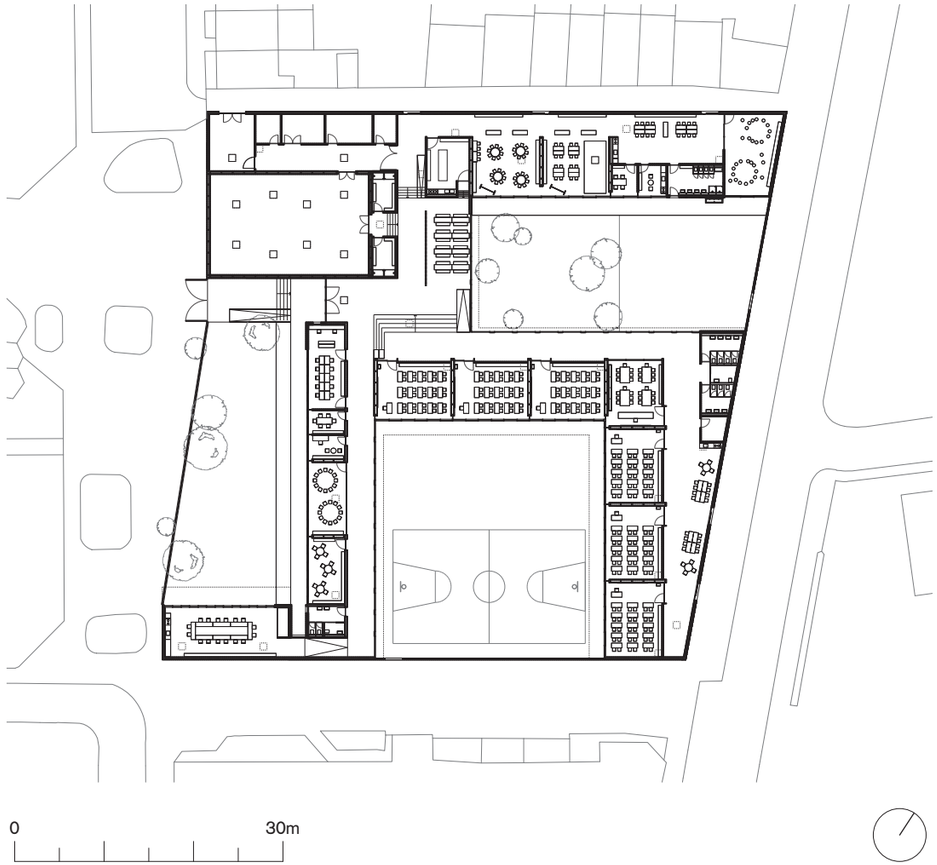
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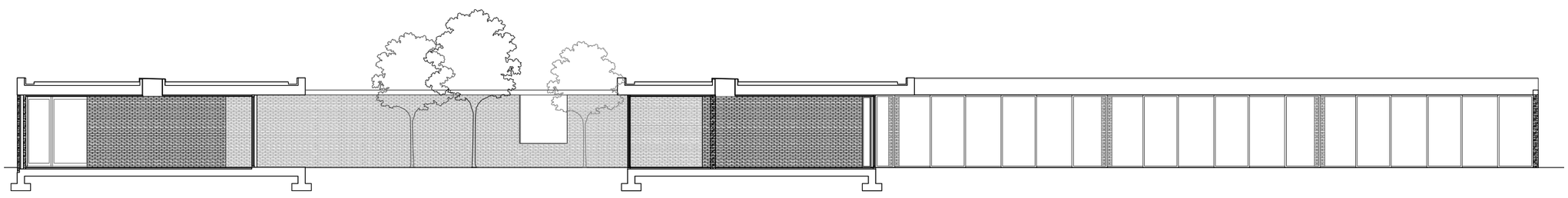

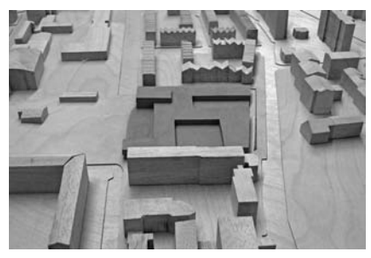


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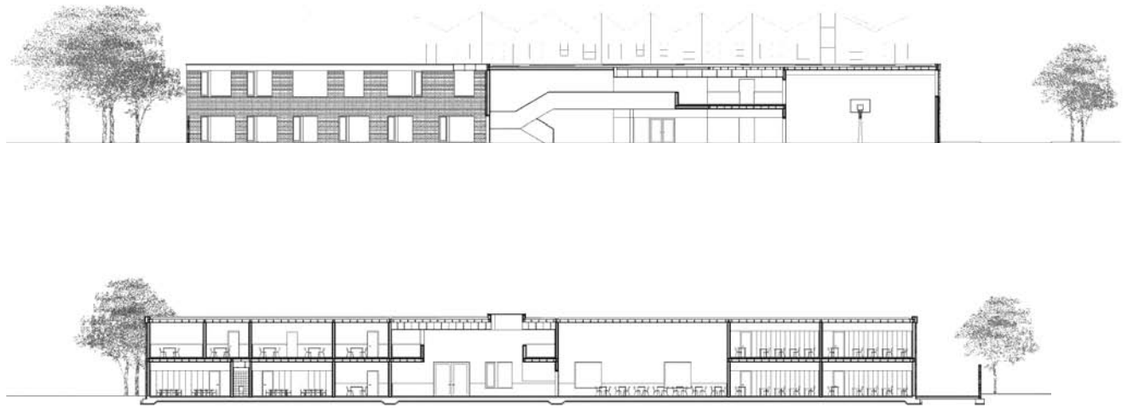

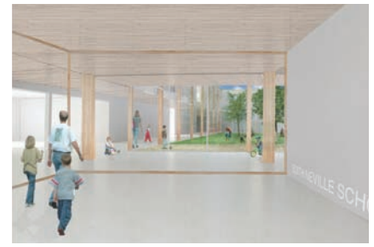

Samuele Squassabia p48

Shane Dunlevy p49

Matthieu Thevenaz

Maritza Prosdocimi

Simone Biaggi,
Roberta Poretti p50–51

Takeo Gondo p52–53

Gian Maria Valentini, Martina Sottile

Marion Stephan

Taro Sakurai,
Marcos Andre Lopes da Sousa p54–55

Beatrice Reglieri

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The plan on page 26 has no status in planning terms. It represents a speculation on possible urban adjustments that could be made to enhance Somers Town.

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