

# Made in Oslo

*Production School in Brenneriveien*

*Abstract*

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**Thesis** - *We want to reintroduce production as a vital part in the daily life of Oslo.*

*Our task is to create a production school that combines production and education.*

### ***Background***

In Oslo, soaring housing prices are causing new urban development to consist of mainly mono-functional residential areas. This one-dimensional focus is in stark contrast to the vital and often chaotic lure of cities. These new norms of urban development are also a fundamental threat to our cities productiveness and competitiveness. In 2020, urban industry tends to be a facet of city life most conveniently forgotten.

We believe that the productive city is of great symbolic importance: A common belief is that children living in city centers should know where milk and eggs comes from. Likewise, we argue that it is of similar importance that children see and understand where manufactured goods come from. That they are produced by someone, somewhere.

The story of de-industrialization in the 1960's played out in two stages in cities across Europe. First, large scale manufacturing jobs were outsourced to low-cost economies. Then, smaller industries moved to the city's periphery, where rents were lower. The separation of industry and city is predicated by the low cost of transportation and shipping, and the large difference in labour costs. However, this equation does not include the environmental cost of a fossil fuel driven transportation sector. The international trade-related freight transport currently accounts for more than 7% of global CO2 emissions.

Now, production is returning to the Western city. The main cause is the utilization of new technology and automation, combined with a new-found interest in reducing emissions caused by international shipping. Robotization reduces the significance of labour costs, and 3D-technology promises a future where everything can be produced everywhere.

The task of reintroducing industry to the city became even more relevant during the corona crisis of 2020.

### ***Program***

In order to reintroduce manufacturing into the city, we have settled on creating a production school in central Oslo. A production school is an alternative to conventional upper secondary education. The school's target group are young students between the ages of 16 and 25 that have dropped out of either vocational or study-related education programs. Many of these teenagers need motivation and guidance to find a new way into either continued education or work.

There are currently three production schools in Norway. Hyssingen, located in Bergen, Hjeltnes Produksjonsskule in Hardanger, and Namsos Produksjonsskole. The Production School pedagogy focuses on learning through practical work and production instead of traditional theoretical teaching: Learning by doing. The theoretical curriculum is integrated into practical production, and all production should generate income for the operation of the school. With this method, the overarching goal is to create a practical learning environment for personal growth. This will encourage and qualify each student to start and complete general and vocational education, or to enter into the labour market.

In Norway today, there are approximately 13 300 people between the age of 16 and 21 not in any form of job or education. Vocational schools have the highest number of dropouts, where only 58 % of the students complete their degree within five years. The percentage of students dropping out is particularly high in the study programs relating to food preparation, handicraft, and construction.

### ***Site***

During our pre-diploma, we decided to conduct a thorough mapping of Oslo, in order to find a suitable site. The first mapping we did was one of all former industrial sites in central Oslo. We also mapped current production in Oslo, as well as upper secondary schools and dropout rates. This led us to focus on the areas of Akerselva, Grünerløkka and Grønland, before finally settling on a soon to be demolished building in Brenneriveien 11 along Akerselva.

River Akerselva is a significant part of Oslo's landscape, and played an important role in the industrialisation of the city. As with most urban rivers, the banks were sites of heavy industrialization in the late 19th century. Unlike the great Rhine or the Mersey, Akerselva is narrow and winding, with violent falls and strong currents. This feature of physical geography made the

river unsuitable for transport of goods. Thus, the industry along the river doesn't really engage and form the river. Instead, the industrial buildings seem to create a barrier protecting the tranquil river from the busy city surrounding it.

The juxtaposition of recreation and production is also a defining characteristic of Brenneriveien. The street currently houses cafés, nightclubs, an art school, galleries, offices and smaller industrial spaces. The architecture is mainly 19th century industrial brick architecture, with Brenneriveien 11 as a notable exception.

The surrounding area has lately been the site of major urban developments, and Brenneriveien 11 is currently set to be replaced by a major student housing block. Furthermore, the forthcoming rebuilding of the Government's Quarter will strengthen Brenneriveien as an important axis between the city center and Grünerløkka.

Brenneriveien 11 was designed by Norwegian architect Harald Hille in 1967, to serve as a warehouse for the Vulkan foundry. However Vulkan ceased operations only one year later in 1968, and Brenneriveien 11 was re-purposed for various small scale industries. Since the late 1980's the building has mainly been used as office spaces and storage.

The building is divided into two separate wings, connected by a central core, with a total area of 3 800 m<sup>2</sup>. The southern wing is raised above ground, providing sheltered loading docks, and the terracotta facade blends nicely with the surrounding 1890's industrial brick architecture. Hille used a standard prefabricated structural system of steel beams and columns, topped with a porous concrete slab. Lateral support is provided by a top layer of in situ concrete. Moreover, during our research we discovered that the architect actually designed the building twice, using two different variations in structural systems.

Discovering that we had a surplus of square meters, allowed us to find space for an additional program. We therefore decided to include production offices and ateliers for local artists and manufacturers.

### *A School for Production*

As a result of the public nature of the production school, it has been a central task to investigate how new public spaces can be incorporated into the existing structure. This has to be seen in relation to the need for sheltering and securing more sensitive functions. Thus, the building is organized as a sequence of public spaces along a walkway, perforating and winding around the central core. This unites the two wings, thereby creating meaningful meeting points between the school and the ateliers.

The architectural design is based on the structural logic of the original building, yet great care has been taken to avoid nostalgic glorification. The spatial qualities lacking in the existing building have been created by precise cuts in walls and slabs. The result is a flexible public space that can be utilized by actors from the larger Brenneriveien area. The proposal strives to create a full spectrum of zones from private to public, from the loud and messy to the quiet and tranquil. It is our hope that this sequence and variety of spaces will be perceived as a microcosm of what makes Akerselva such an interesting sequential landscape.

The structural system has already shown its ability to adapt itself to new uses, and is now complemented by a new pallet of materials. New interior walls are made from partitions with soft timber infill panels, contrasting the industrial materials and creating a warmer atmosphere for the students. Exterior walls are made from polycarbonate in steel frames, creating large sliding doors erasing the division between interior and exterior spaces. The public spaces have been given an instantly recognizable accent colour, helping users orient within the building.

The main challenges of this project have been to distribute the daylight into these deep volumes, and provide spaces suited for a new mode of production. Simultaneously, we are aiming to transform an anonymous warehouse into a playful space, where the productive and recreational city intersects.

### *About*

This diploma contains the following documents

**Abstract** - A summary of the projects background

**Posters** - Our digital posters, together with a mounting instruction

**Analysis** - Key arguments to understand the project

**Program** - Pre-diploma providing background for the project

**Process** - Chronological documentation of the process

**Excursions** - Important references and research

**History** - Documentation of the historical traces of Brenneriveien

### *Literature*

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