BAUGRUPPE K-01

Self-build community that became its own developer

1.1 Manifesto

Design Studies 5A shows the problem of lack of good quality housing based on stories of chosen families. The history of Glasgow shows as well rush with the erection of housing to meet the growing demand to provide living spaces for workers in the past.

Many housing developments are profit-orientated and focused on short-term profit which results in poor quality and a high quantity of newly built houses. This approach flattens each family to fit within standardised spaces with no respect given for the individual needs of people.

We are all different, we do different things, we have different tastes, we have different expectations, we behave differently, and finally we use and see spaces differently.

The author decided to deviate from the „standard" budget and profit-orientated approach in favour of future homeowners and their individual needs

To achieve independence from any bad factors that may influence this housing development future tenants decided to use an innovative approach by creating their BAUGRUPPE (building group) to get into the role of needs-orientated self-developer and funder.

1.2 Self Made City - Inspiration

The book presents the analysis of over 100 different buildings initiated by community groups or by professionals like architects for community groups.

- Aspects of BAUGRUPPE
- Developed and planned together by future residents
- Custom-fit to particular needs
- Good communication with the neighbourhood
- Sustainability (ecological, financial, social)
- Return on investment is not a main factor

This needs-based urban development approach sparked by different communities also presents an alternative or anti-model, to profit-oriented developments. [1]

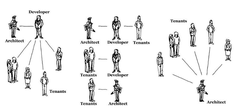
1.3 „a Building Site' fo Fraud and Corruption

UK Construction Sector is „a Building Site" for Fraud and Corruption - on of articles from University of Portsmouth says.
Research from the University of Portsmouth fraud and corruption in the construction sector is destroing profitability and public trust in infrastructure projects. Prepared report identifies factors that make the sector susceptible to fraud and corruption such as:
Project management - **inadequate supervision**
Tough to scrutinise - **quality of work can be concealed**
Construction culture - **corruption, bribes and cartel** behaviour more common versus other sectors.
Complex supply chains - **many players** and moving parts
Large costs - obscuring **fraud** and **waste**
Bid structuring - lowest bid award prompts profit to be sought elsewhere [2]

1.4 What is a Baugruppe?

The term „BAUGRUPPEN" in German means „building groups".

A BAUGRUPPE is a group of people who pool their financial resources and personal efforts to construct a building that accommodates all its members. The division of property, duties, and costs is determined by an agreement prepared by their lawyer.



Different models of housing developments
*Based on Baugruppe Guide [3]

Joining **BAUGRUPPE** can often help reduce construction costs or provide opportunities for individuals to share their dream spaces. For example, tenants connected by a passion for music can have a shared rehearsal room, making the space more affordable for everyone involved.

„The innovative energy of co-housing projects is reflected in the quality of their architecture and in how groups take on an important role within their urban quarters, while also being dedicated to ecological building"

Prof. Kristien Ring - Principal of AA Projects, Assistant Professor at the University of South Florida, author and editor of „SELF MADE CITY"

„Construction has become a building site for fraud and corruption. Without solid foundations being put in place to counter this threat, taxpayer money risks being wasted and public trust in government spending will crumble"

Jim Gee, Head of Forensic and Counter Fraud Services at Crowe

„Our research shows that the procurement of major construction projects is fraught with fraud and corruption risks."

Professor Mark Button, Director of the Centre for Cybercrime and Economic Crime

„At a time when the UK government is investing heavily in infrastructure projects, the risk of public funds being misused is high."

Jim Gee, Head of Forensic and Counter Fraud Services at Crowe

If something what is meant to work doesn't work through decades despiting money invested, then we may be sure that somebody doesn't want it to work or is making money out of it.

1.5 Scale of BAUGRUPPE

Different **BAUGRUPPEN** operate on various scales, with the smallest accommodating three or four households, and the largest shared by up to 200 homeowners. These shared buildings offer opportunities previously reserved for those who could afford them, such as prime locations, high quality, unique personalised features, and an individual design approach.

To illustrate the range of different scales, here are some examples of recent housing developments in Germany.

StadtGrün Berlin Köpenick
[4]

Location: **Köpenick**
Stage: **Planning**
Tenancy: **4**

Baugruppe Max 31
[5]

Location: **Weißensee**
Stage: **Planning**
Tenancy: **11**

Baugemeinschaft Resi134
[6]

Location: **Reinickendorf**
Stage: **Planning**
Tenancy: **26**

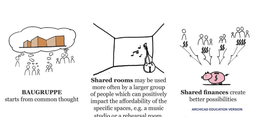
Lichtenrader Revier
[7]

Location: **Tempelhof**
Stage: **Construction**
Tenancy: **200**

Overall View Artist's Impression 1

Roof View Artist's Impression 1

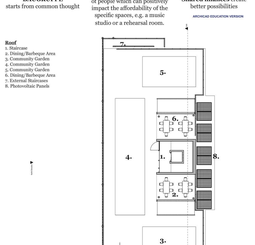
Roof View Artist's Impression 2



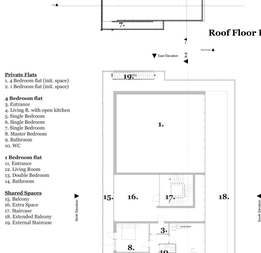
BAUGRUPPE
starts from common thought

Shared rooms may be used more often by a larger group of people which can positively impact the affordability of the specific spaces, e.g. a music studio or a rehearsal room.

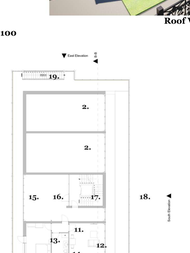
Shared finances create better possibilities



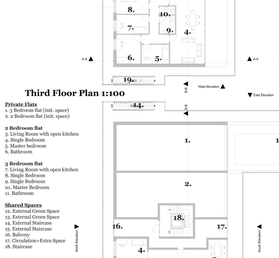
Roof Floor Plan 1:100



Third Floor Plan 1:100



Fourth Floor Plan 1:100



Second Floor Plan 1:100

First Floor Plan 1:100

Ground Floor Plan 1:100

Basement Floor Plan 1:100

Exploded Axonometry 1:100

2.8 Household Profiles

To exclude personal bias a group of ten households was created with the help of AI. AI generated tenants' age, profession and hobbies, and suggested their desired spaces. Further design development will investigate commonalities to offer the best design response.

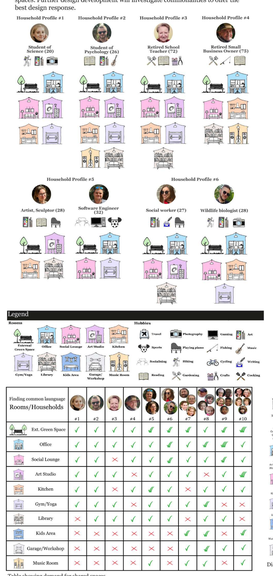


Table showing demand for shared spaces

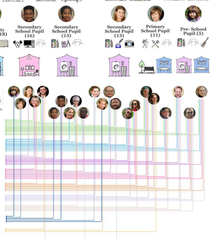


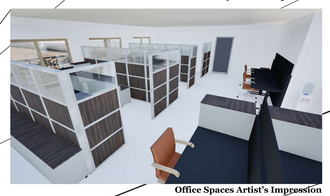
Diagram of desired shared spaces

Overall View Artist's Impression 2

Aerial View Artist's Impression

Art Room Artist's Impression

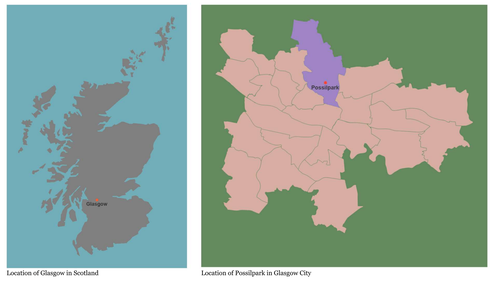
Library Artist's Impression



Office Spaces Artist's Impression

Shared Dining Artist's Impression

Public Gym Artist's Impression



Location of Glasgow in Scotland

Location of Possilpark in Glasgow City

2.4 Possilpark Bands tand

Bandstands, typically circular or polygonal in shape, were designed for musical bands to perform concerts. By the late 19th century, bandstands had become popular and were deemed essential in parks. They held significant value for the community, serving as important spaces for meetings and cultural activities. One such bandstand in Possilpark was situated in the centre of the considered site. Although its history is not well-documented, maps show it appeared around 1910 and vanished by 1950. These structures emerged in response to the Industrial Revolution, as the city recognised the deteriorating conditions in urban areas.

1858 Lanarkshire, Sheet VI - OS 6 Inch map [17]

MacFarlane's Castings Bandstand No. 224 - very common bandstand pattern, with high likelyhood of being located on the site in the past. [15]

Example of a bandstand made in Saracen Foundry. [16]

1912 Plan of Glasgow - Bartholomew's „Survey Atlas" [18]

1938 NS56 - OS 1:25,000 Provisional Series Map [19]

2.5 Why Possilpark?

This neighborhood was chosen based on research conducted in my fourth year for the dissertation titled „Can the life expectancy of the more vulnerable part of Glasgow communities be higher by introducing better design solutions?" (see annexes). This area experiences the shortest life expectancy in Glasgow and faces high levels of poverty and deprivation.
Choosen site is one of the Vacant and Derelict sites included in Land Survey prepared by Glasgow City Counell. Site is located behind the Possilpark library and its bounded by Stonyhurst St, Canrath St and Allander St.
Implementing solutions like Baugruppe aims to demonstrate the potential and benefits of non-profit-oriented designs to communities, councils, and architects. Such approaches could positively impact our city in the future.

2.4 Local Wealth Investigation

Possilpark's products were distributed worldwide. Their ornamental ironwork was featured in numerous architectural projects throughout the United Kingdom and extended to countries such as South Africa, India, Singapore, Australia, Canada, Brazil, and many more.

2.5 Local Wealth Saved!

Fortunately, the catalogue of Macfarlane's Castings, published in the 1890s, has survived to this day. It has been digitised, providing an incredible resource of patterns available online.

2.6 Ballustrade Needed Now

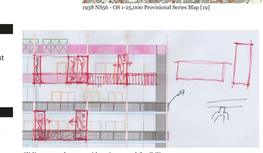
Today, iron casting is challenging due to high carbon emissions. As an alternative, steel sheets will be used, and patterns will be applied with a CNC cutter to achieve a similar result.

2.7 Pattern Selection and Creation of Objects

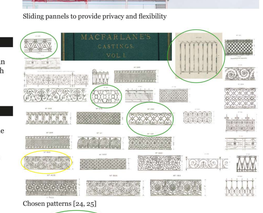
The catalogue offers hundreds of patterns specifically for railings. The most interesting ones were chosen and compiled on a single page. From these, a few were selected to test how the patterns integrate with different thicknesses, as this is a crucial difference between cast iron and sheet steel.

Patterns No. 408, No. 319, and No. 140 appeared to be among the best for CNC cutting. However, pattern No. 866, one of the more complicated designs, was also tested. Patterns No. 408 and No. 140, when brought to a certain thickness, became very subtle, while pattern No. 866 stood out and proved most suitable for representing its historical significance. Pattern No. 319 was chosen for use on external staircases. [24, 25]

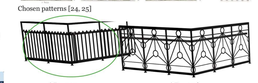
MacFarlane's Pattern Artist's Impression 1



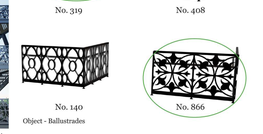
Sliding pannels to provide privacy and flexibility



Chosen patterns [24, 25]

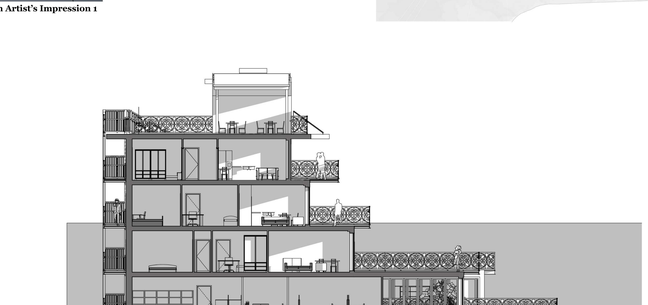


No. 319 No. 408

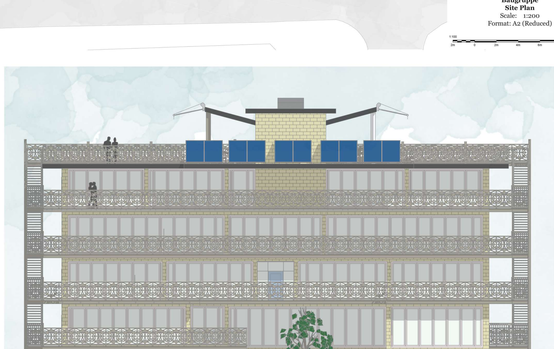


No. 140 No. 866

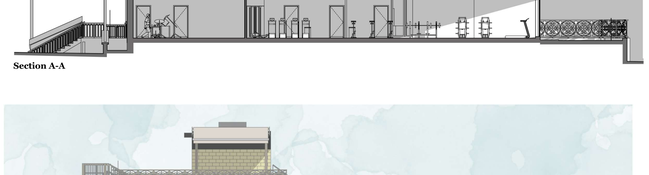
Object - Ballustrades



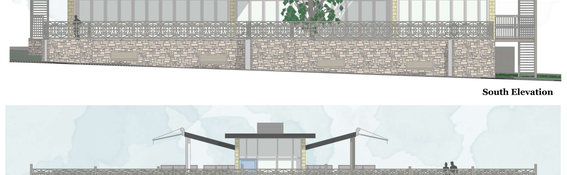
Section A-A



South Elevation

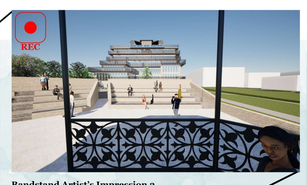


West Elevation

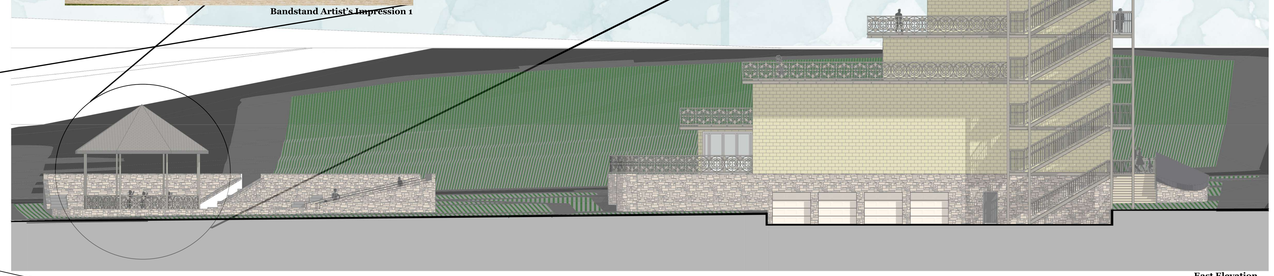


North Elevation

Bandstand Artist's Impression 1



Bandstand Artist's Impression 2



East Elevation

A public bandstand will not only restore the site's historical significance but also become a vital part of community life, benefiting both the residents of Baugruppe and the wider Possilpark area.
With modern technology and the effective use of cameras, artistic events can be streamed, promoting the local area and providing access to cultural activities for those unable to attend in person.

Design Studies 5B
Year 5

Konrad Kolodziej