

**MANCHESTER SCHOOL  
OF ARCHITECTURE**



# URBAN ACUPUNCTURE

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**MSA  
LIVE 22**

## Team

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## Partners

Castlefield Forum was set up to contribute to the Castlefield district by promoting conservation and enhancement of heritage assets, engaging residents in community projects, and improving visitor experience.

The Forum became a Charitable Incorporated Organisation in 2019, and consists of a board of volunteer trustees who work alongside community action groups. The action groups are categorised as the Spirit of Place, the Roman Gardens, Gardening, and Events & Marketing.

They identify their primary objectives as follows:

“To protect and promote the Castlefield Conservation Area; to secure the preservation, protection, development and improvement of features or areas of historic or public interest; to promote the conservation of the environment; to educate the public in the geography, history, natural history, culture and architecture of the area; to promote high standards of planning and architecture; and to promote urban regeneration.”

They recognise that alongside achieving their objectives, the Forum offers a space for residents to meet and develop important community relationships.

# Agenda

## Urban Acupuncture

This project collaborated with Castlefield Forum to help achieve their vision of a “Cleaner, Greener, Safer, and Better Castlefield.” Our objective was to make a positive contribution to Castlefield, whilst conserving and enhancing its heritage assets, for the benefit of the community and visitors.

The MSA Live event encouraged students to engage in the project by carrying out data analysis, mapping existing urban conditions, and proposing place-making interventions to bring the community together. In order to do this, the project used the concept of urban acupuncture and the principles of tactical urbanism in order to best improve the locality.

‘Urban acupuncture’ is a design tactic promoting urban regeneration at a local level; by developing neglected areas, enhancing green spaces and centring community needs. ‘Tactical urbanism’ refers to low-cost and usually temporary interventions made to urban areas in order to improve the locality for residents and visitors alike.

By creating three focus groups within the team and allocating each one a specific site from across Castlefield, a more detailed study was conducted of each area in order for the most appropriate interventions to be designed. Keeping in mind the Forum’s primary objectives, alongside significant budget constraints, each group faced unique challenges along the way.

Varied interventions were put forward for each of the sites, ranging from the suggestion of free activities such as group meals and art projects; low cost projects such as up-cycled seating and decoration of canal tunnels; through to investment ideas such as the creation of moveable market stalls and street furniture inspired by ‘superblock strategy’.

# Group 1/ Demographics

Group one carried out demographic studies using mapping exercises and online data collection. The sourced data was used to produce maps and creative infographics of Castlefield including homeownership statistics, age breakdown, employment, health, etc. Consequent findings helped inform a clear understanding of people's needs within the chosen zones. The project design proposals consider key demographic points, as outlined below.

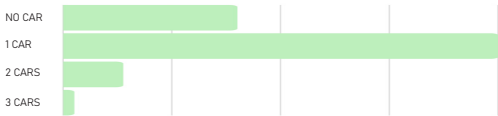
A large amount of the Castlefield population lives alone. Therefore, to ensure that individuals don't experience loneliness and feel part of a community, it is essential to propose engaging and welcoming events within the sites.

Moreover, the most significant proportion of the population is made up of young people between the ages of 17-30 years. Therefore, this allows for the planning of active community-involvement activities as part of the design proposals. Examples include yoga classes, sports gatherings, etc.

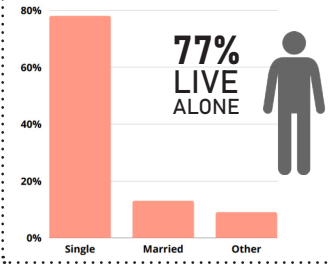
Over 50% of the Castlefield population either occupies their own home or rents privately. This indicates the need for long-term design commitment to the area. Proposals for each zone may include permanent strategies for community engagement which can be passed from one generation to another.

## CARS OWNED PER HOUSEHOLD

32%  
HOUSEHOLDS  
DON'T HAVE  
A CAR  
OR MOTORIZED VEHICLE

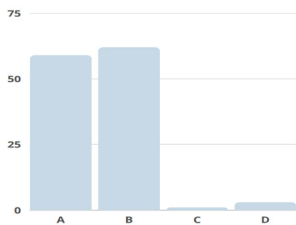


## MARITAL STATUS

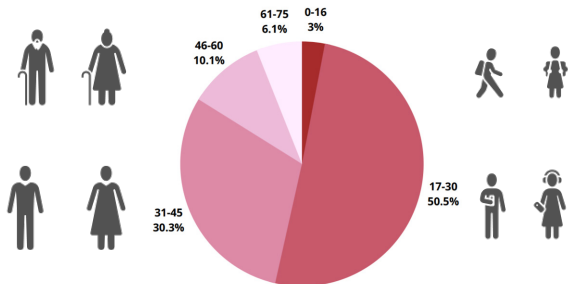


## HOME OWNERSHIP

- A Owner Occupied
- B Privately Rented
- C Shared Ownership
- D Other



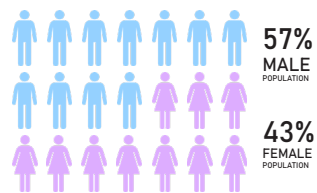
## AGE BREAKDOWN



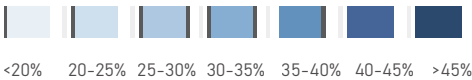
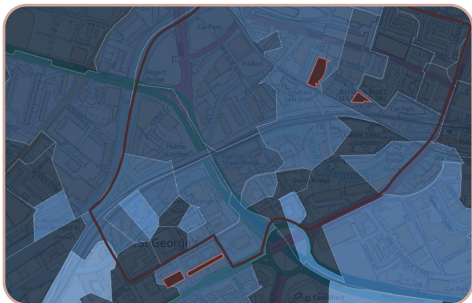
41,343

TONNES PER KM<sup>2</sup>  
OF CARBON  
DIOXIDE EMISSIONS

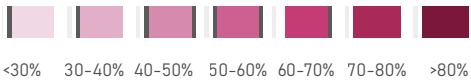
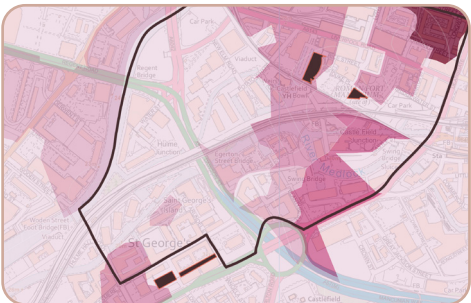
MEDIAN AGE : 28.6 YEARS OLD  
POPULATION DENSITY : 4,543 /km<sup>2</sup>



One Person Household



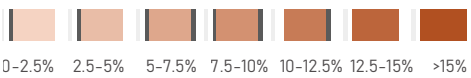
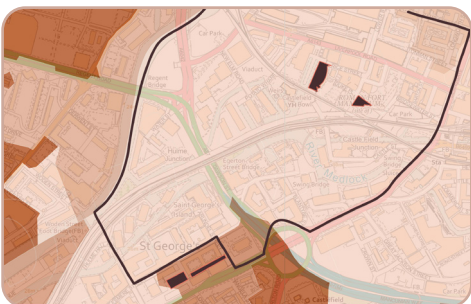
Households Owned By Mortgage/Outright



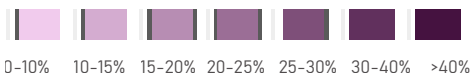
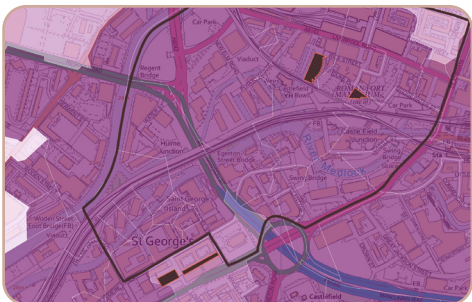
No Car Or Van Available For Use



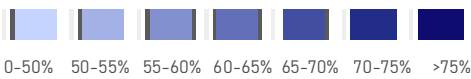
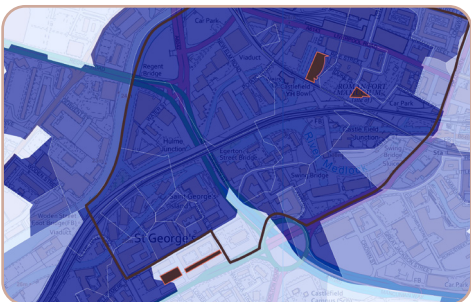
Population With A Health Problem Or Disability



Population Aged 16-34



Population That Are Employed





## Group 2 / History

Initially, the group started out by exploring the historic background of Castlefield, the key years which marked its significant evolutions, the landmark buildings and how they adapted over time. Thorough background research and analysis conducted by the group helped to better understand the significance of the site and further helped to initiate design ideas for urban design interventions.

The figure ground study of the Castlefield region over a period of 100 years from 1900s – 2020 showed how the area experienced a gradual reduction in the densities of buildings, hinting that the warehouses and old tenements were refurbished into newer residential developments. From the site visit, it was also seen that the heights of the buildings had increased and the overall ground coverage had reduced. Broadly the maps highlight how Castlefield converted from industrial buildings to having residential areas.

The timeline on the right highlights the key events and locates the listed buildings currently on-site to highlight the significance of Castlefield area. The illustrations also helped in analysing the characteristics of the site such as the arches of the via ducts, the canals, the railway stations and even historic elements such as the old Roman ruins.



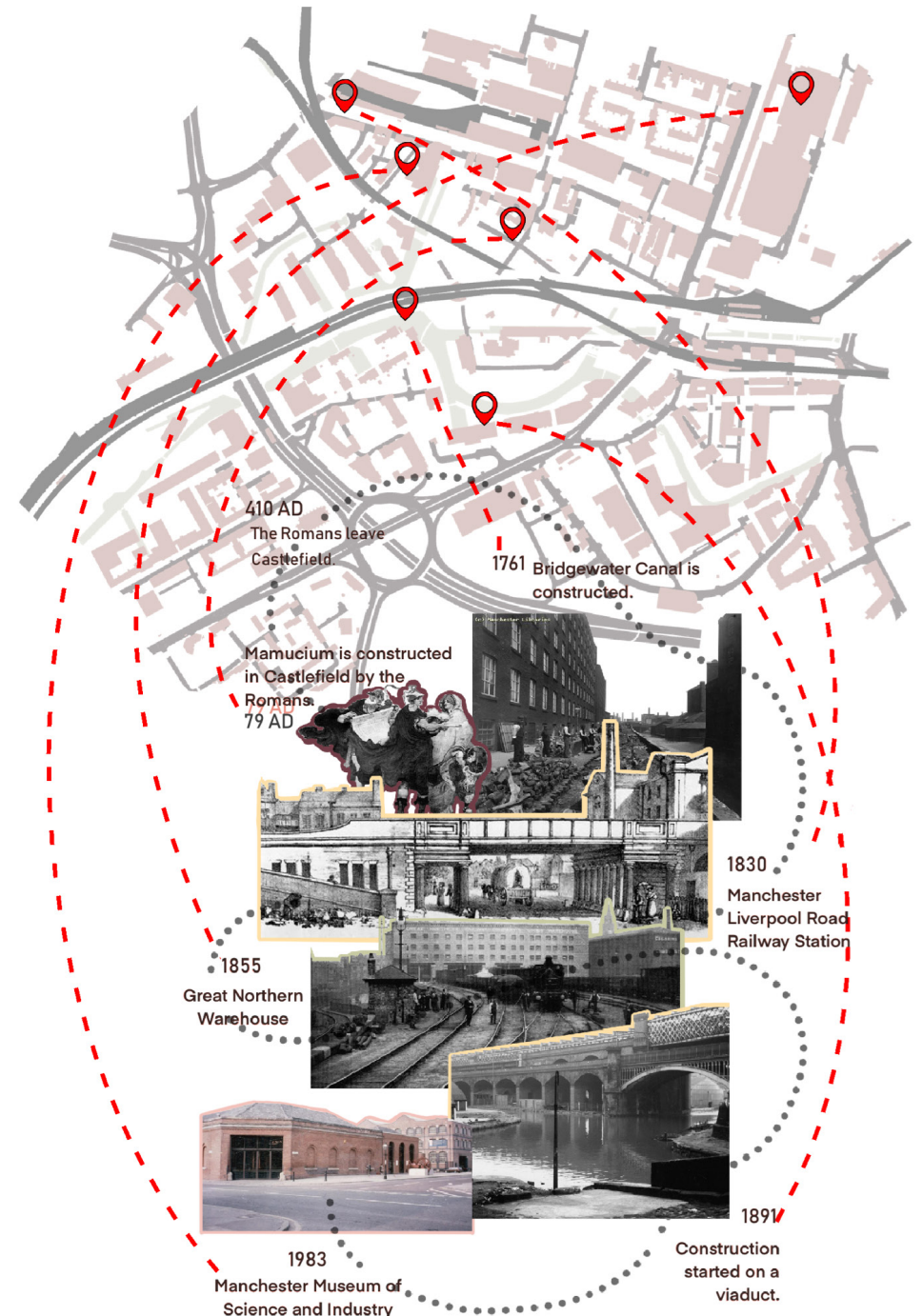
Castlefield in 1900s



Castlefield in 1960s



Castlefield in 2020s



Historic Timeline of Castlefield Area



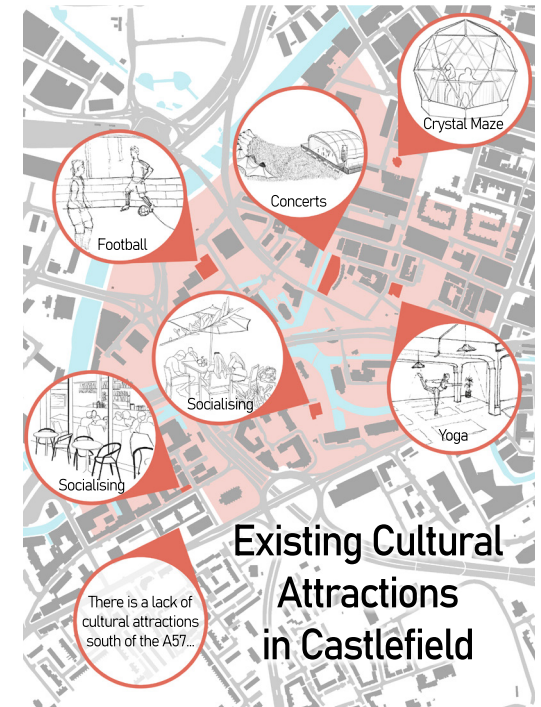
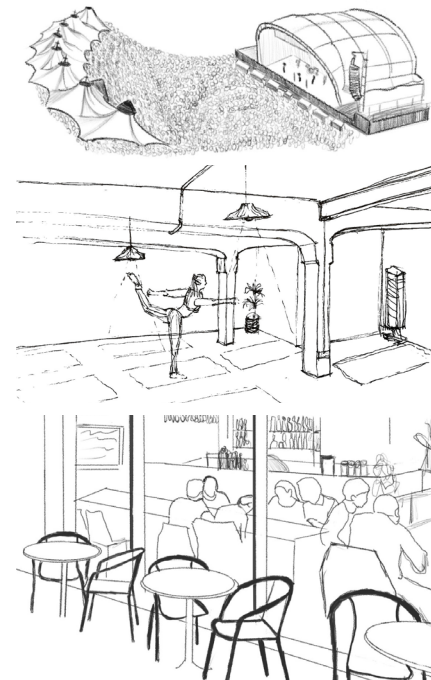
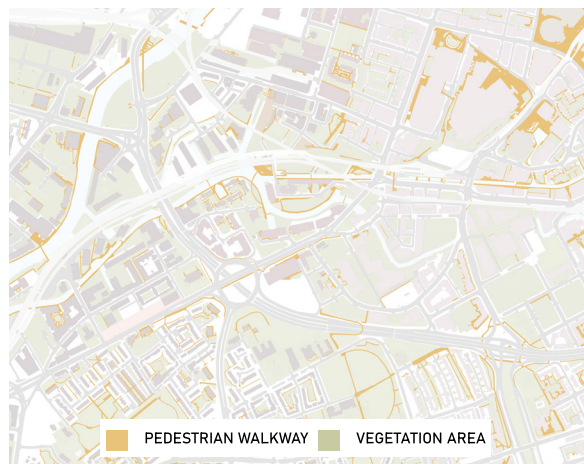
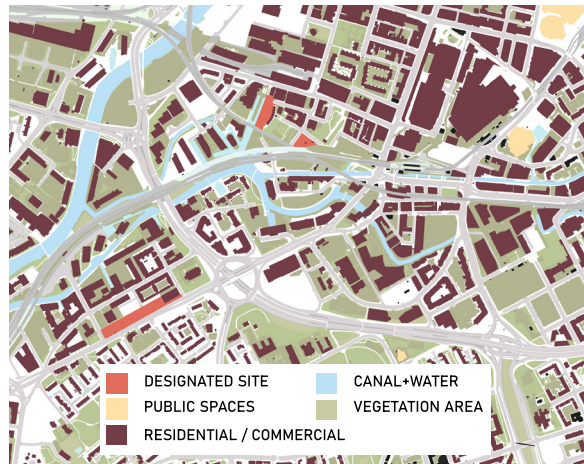
## Group 3 / Land Use

Group 3 were initially tasked with conducting a study into the current land use and existing context of Castlefield as a whole.

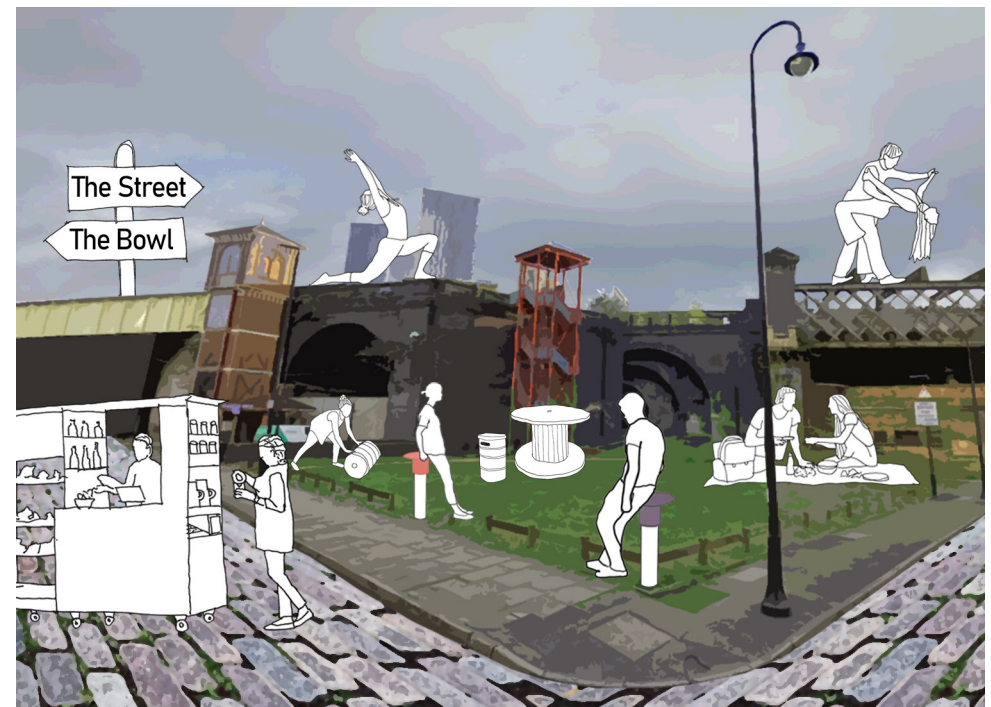
By producing a trio of maps which explore the current typologies of the area and the existing infrastructure, the team were able to identify that Castlefield is a majority residential area with limited useful public space - this helped us to identify our primary users as residents of the area. The A57 severs 'North Castlefield' from 'South Castlefield' making interaction between the two areas difficult - on foot, the only way to cross this boundary is along the canal paths, which we noted do not often feel safe. The area is not well served by safe and well laid out pedestrian walkways, and the links between the chosen sites are poor.

The team also identified key existing cultural attractions in the area. These included The Crystal Maze, Space at the Mill, Soccer in the City, and various pubs, bars and restaurants. This demonstrated that South of the A57, these attractions are minimal, therefore intervention needs to be made.

Inspired by our research, we began to brainstorm various ideas for activities and interventions at our designated site, The Triangle. Initial ideas ranged from the building of a new lookout tower, plant portraits, coffee stands and temporary seating and suggestions of community activities.



### Existing Cultural Attractions in Castlefield



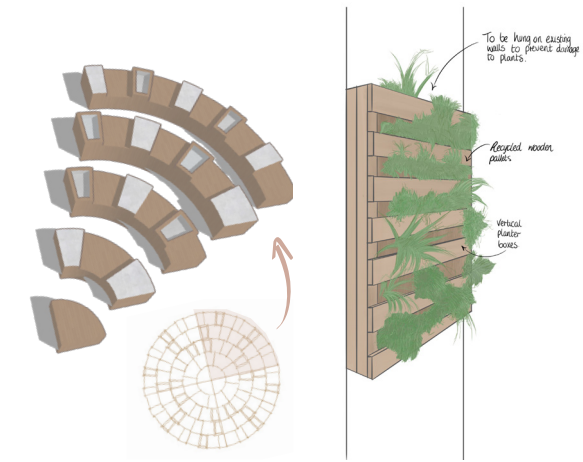


# Group 1 / The Street

Group 1 worked on The Street and the students proposed individual urban interventions at different price points. Some of the major design ideas include wayfinding, urban gardening and pedestrianising the street using 'superblock' strategies.

Wayfinding uses painted coloured lines as a way of navigation in Castlefield and adds a creative characteristic. Urban gardening strategies using upcycled materials for planters will get the community involved in growing fruits and herbs. Superblock strategy is implemented to create a more public area with community engagement programs. This is achieved by diverting the vehicles away using furnitures, planters and bollards. Prototypes for urban furnitures are explored at different price points and using sustainable materials like rammed earth and timber. The street is envisioned as a pedestrianised area complete with an entrance gate, benches, coffee-book stalls, catenary lighting and planters.

Cost	Design Ideas
< £500	<b>Painting tunnels &amp; streets</b> (as part of a community initiative program); <b>Public seating</b> using waste material, <b>Vertical Planters</b> using recycled pallets.
> £500	<b>Catenary lighting &amp; bollards</b> to activate the space at night; <b>Entry gate</b> to highlight the pedestrianised street; <b>Modular urban furniture</b> ; <b>Lighting</b> in tunnels and bridges.



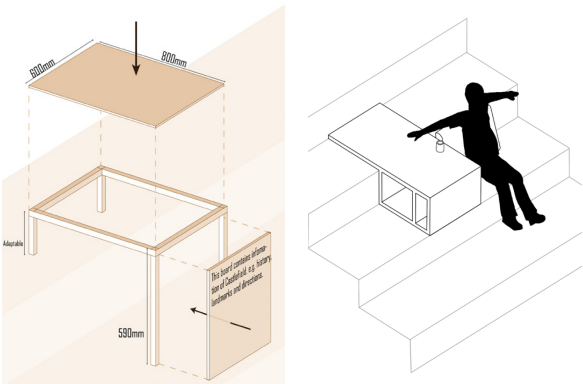


# Group 3 / The Bowl

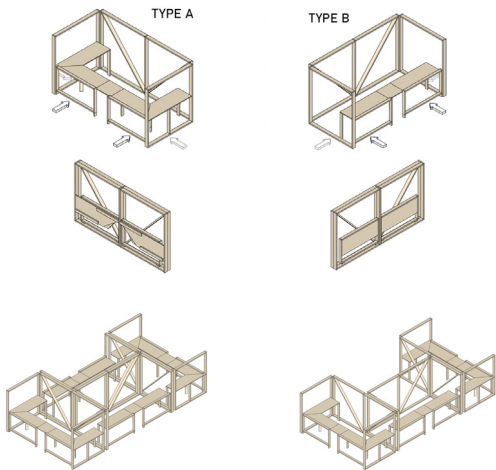
The group started to explore different possibilities of low-cost urban interventions which can be adopted for the Castlefield bowl. The ideas evolved after many discussions and iterations and three final design ideas were selected for the bowl. The interventions were designed on a micro-scale which are aimed to bring a bigger impact on the whole community by increasing their interactions.

The **first design** intervention involved building a portable furniture to be installed on the steps of the Castlefield bowl for the residents and tourists to use. The **second design** proposes a foldable structure which can be reused for markets, exhibitions and fairs. The structure uses timber joists to build framed structures, keeping costs low and to promoting sustainable design. The **third design** is a self-sustaining green wall for the viaduct, which is currently being converted into a green corridor. The green wall will help to reduce the pollution and improve the lacking greener, bringing the biodiversity back into the area.

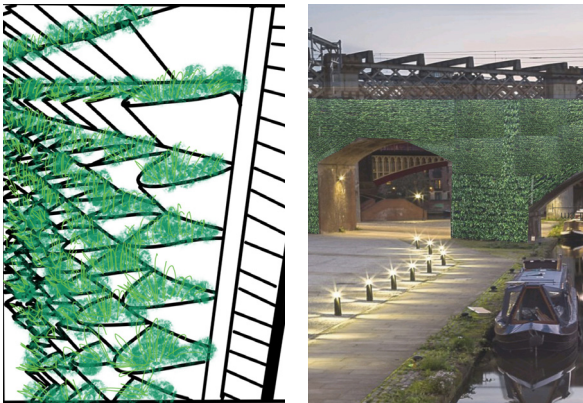
Cost	Design Ideas
< £500	<b>Portable furniture</b> installed on the steps for people to relax and dine; <b>foldable structure</b> acts as a stand for markets, exhibitions and events.
> £500	<b>Vertical green wall</b> for the viaduct to create a greener space and increase the biodiversity.



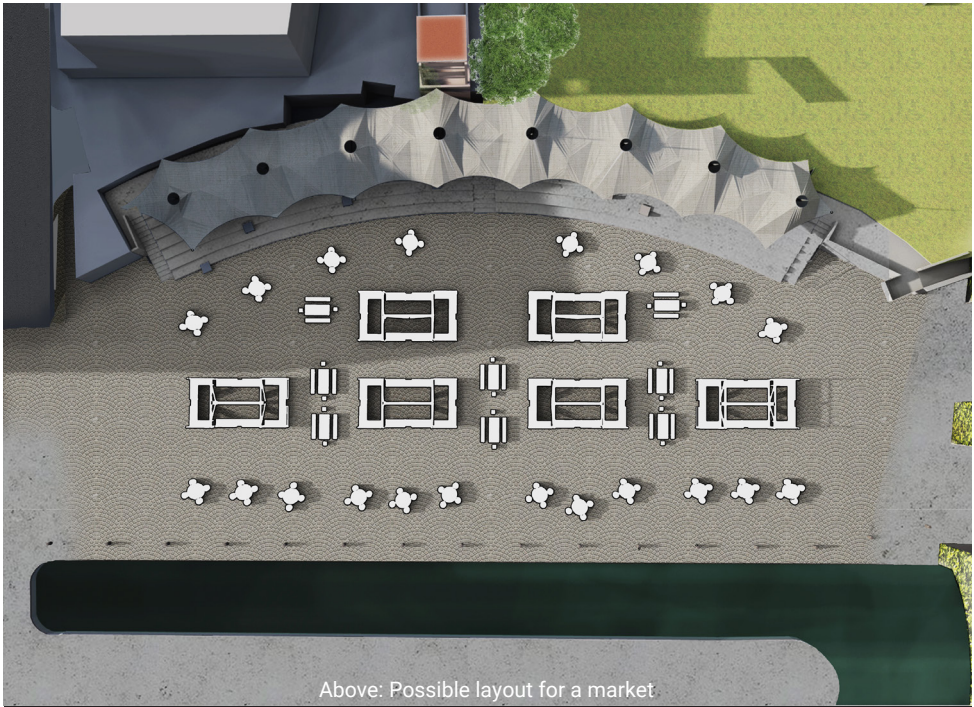
Portable Dining



Adaptive Foldable Structures



Green Wall Viaduct



Above: Possible layout for a market



Below: Event day taking place



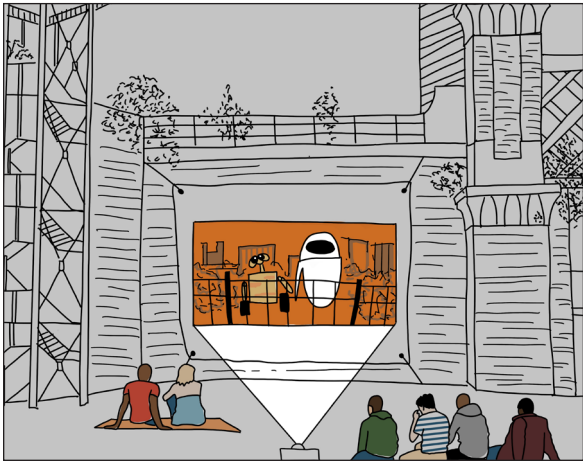
# Group 3 / The Triangle

For 'The Triangle', the area of grass between Duke Street and Beaufort Street, the team suggested a variation of interventions for different budget levels which could improve this area for residents - but also encourage visitors to stay a while!

Free and low cost ideas detailed in the table below would rely on residents bringing along certain items, but would encourage community interaction. Examples are shown in the three sketches.

The renders across the page demonstrate how investment pieces of street furniture and commerce could vastly improve and encourage better use of the area. The keg seats and reel tables feature across the ideas for all the areas, as they are easily rolled. These could be stored in the 'classroom' of the Roman Fort when not in use.

Cost	Design Ideas
< £500	<b>Free activities:</b> yoga class, salsa class, potluck. <b>Low cost:</b> outdoor cinema with temporary screen and projector. <b>Upcycling:</b> seating using adapted beer kegs and tables made of disused cable reels. <b>Small investment:</b> seating attachments for bollards
> £500	<b>Investment:</b> cart that uses planks, pallets and wheels which can be used as a coffee cart, market stall or library





## ABOUT

Each year the MSA LIVE programme unites M Arch. year 01 with B Arch. year 01 and 02 and M Land. Arch 01 in mixed-year teams to undertake live projects with external partners to create social impact.

## LIVE PROJECTS

All MSA LIVE projects are live. A live project is where an educational organisation and an external partner develop a brief, timescale, and outcome for their mutual benefit.

## SOCIAL IMPACT

All MSA LIVE projects have social impact. Social impact is the effect an organization's actions have on the well-being of a community. Our agendas are set by our external collaborators.

## EXTERNAL PARTNERS

MSA LIVE projects work with many organisations: charities, community groups, social enterprises, community interest companies, researchers, practitioners and educators.

## STUDENT-LED

Our MSA masters students take the lead in the project conception, brief development, delivery and co-ordination of a small project. Other cohorts joined for an eventful 2 weeks of activities at the end of the academic year.

## KNOWLEDGE TRANSFER

Working in teams within and across year groups and courses; MSA students participate in peer to peer learning. In addition, collaborators, participants and students engage in the transfer of tangible and intellectual property, expertise, learning and skills.

## LARGE SCALE

This year approximately 550 students from 4 cohorts in MSA have worked on 35 projects with partners.

## QUESTIONS

For questions about MSA LIVE please contact the MSA LIVE team:

**[msalive@mmu.ac.uk](mailto:msalive@mmu.ac.uk)**

## BLOG

**[live.msa.ac.uk/2022](http://live.msa.ac.uk/2022)**

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