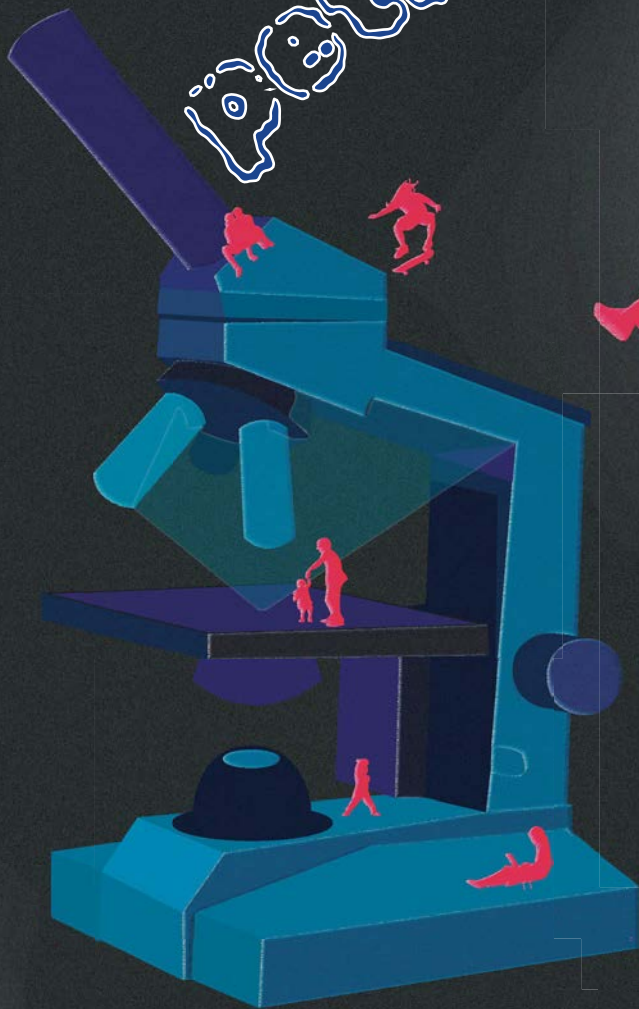


MANCHESTER SCHOOL OF ARCHITECTURE

Nathan Morgan | Ng Zi Thong | Roubie Mulchrax |
Zeynep Yucel | Sofia Shalvazad | Anne Robertson | Lu
Hanjun | Millie Mulchrax | Song Wenrou | Zara
Chaudry | Yu Yunchen

Petri of Play



Petri of Play is a proposed collaboration between MSA Live Group 03 and The University of Manchester, to bring community, nature, learning and play to the area outside Manchester Institute of Biotechnology.

Our site is currently tucked away from the main road, disconnected from its surroundings and subject to vandalism. Together, we aspire to create a space for people of all ages to enjoy, somewhere to sit, with planting and interactive educational displays showcasing the work of Manchester Institute of Biotechnology.

We hope to collaborate with a local primary school to educate on topics such as biodiversity and climate change, through the medium of play.

Visit msa.ac.uk for more information



MSA
LIVE 26

Team

Anna Robertson_(MArch1)

Lu Hanjun _(MArch1)

Milia Marnissa Binti Mokhtar _(MArch1)

Song Wanrou _(MArch1)

Zara Chaudhry _(MArch1)

Yu Yunchen _(MA AR)

Sofia Shahzad_(FDN)

Nathan Morgan _(BA1)

Ng Zi Thong _(BA1)

Rouba Mukhtar_(BA1)

Zeynep Yucel _(BA1)

Kari-Helene Rane _(MLA1)

Collaborators

Our collaborator for this project was the Manchester Institute of Biotechnology at the University of Manchester. The MIB brings together researchers from biology, chemistry and engineering to explore pioneering scientific possibilities. Through interdisciplinary collaboration and innovative technologies, the Institute develops practical solutions to significant global challenges while working alongside international partners to create meaningful impact. A key area of focus within the MIB is the investigation of biological systems at a molecular level, enabling researchers to better understand their structures, functions and potential real-world applications.

We collaborated with Ulrike Klemstein, Senior Technician in Environmental Biology at the MIB, to develop the 'Petri of Play' project. She provided the project brief and outlined the key design requirements: creating a green, sustainable social space outside the Institute where young people could engage with nature while learning about microbiology. The aim was to design an interactive, educational environment that would inspire children in the local community to explore the natural world and deepen their understanding of environmental science.

The project hopes to brighten up the area and make it feel more welcoming, interactive and inviting for visitors and the wider community. A key focus is encouraging curiosity and making science feel more accessible to the public, especially children, due to the nearby primary school.

Introduction

Petri of Play

Our project focuses on creating an interactive outdoor exhibition space outside the Manchester Institute of Biotechnology, helping make the research inside the building more visible to the public. The space uses displays, physical models and visual installations to explain scientific ideas in a more engaging and accessible way, while strengthening the connection between the Institute and the local community.

As part of the design process, we developed digital models, concept visuals, signage ideas and installation proposals inspired by biotechnology and environmental research. The aim was to create a space that makes science feel more approachable, relevant and connected to everyday life.

Petri of Play focuses on making science more open, playful and easier to understand. It aims to improve the outdoor space around the Manchester Institute of Biotechnology by turning it into a more engaging place for local people, rather than keeping the research hidden inside the building. A big part of this is creating a space for children to learn through play. The interactive displays, installations and growing beds give nursery and primary-age children a way to explore ideas around sustainability, biodiversity, food growth and microbiology in a simple and enjoyable way. As the surrounding area has limited green or playful spaces, the project helps create a more welcoming environment for learning and interaction.



Site Visit Thoughts

The area around the MIB has a large open external space within a dense urban setting. From the first site visit, it felt very functional but lacking identity. The wide paved areas made the space feel quite hard and inactive, with limited greenery and little to encourage people to stay beyond using it as a route through. Although the site is open and visible, it does not really reflect the innovative research happening inside the Institute.



Despite its potential, the site also has some clear limitations. The large amount of hard paving makes the space feel cold and exposed, especially in Manchester's often grey weather. The height and scale of the surrounding buildings also create areas of shade, which could affect sunlight levels and the growth of planting.

Although the openness of the site helps with visibility, it also means there is little sense of shelter or enclosure. This makes the space feel more like somewhere people pass through rather than somewhere they would choose to stay.

Another issue is the lack of connection between the outside space and the scientific work happening inside the MIB. From the public realm, there is very little to suggest that the building is linked to biotechnology research. Because of this, the site currently lacks a clear identity, story or educational presence.



The surrounding context is mainly made up of university, institutional and residential buildings, giving the area a strong urban character with hard landscaping and muted materials. There are some planters and seating areas, but these feel quite fragmented and do not create a particularly inviting public space. This made the site feel like a clear opportunity for a more playful landscape and placemaking intervention.



The site has clear potential for a landscape and exhibition intervention. Its large open footprint gives enough space for interactive displays, planting, seating and educational features without disrupting the main circulation routes. Because the area is already visible and accessible, any intervention could easily engage students, staff and the wider public.

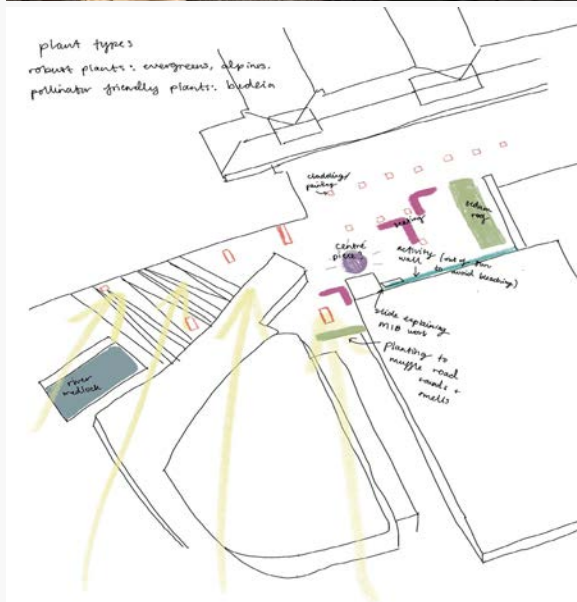
The existing pedestrian routes could become part of the experience, with displays and installations placed along the paths so people engage with the science as they move through the space. This helps shift the site from a simple route into a more public-facing learning space for the MIB and local community.

Meeting the collaborator

Meeting with our collaborator, Ulrike, helped us develop a clearer vision for the project. During our discussion, it became clear that she wanted the space to be more than just an information point. Instead, she envisioned a welcoming social space that would “attract people to come find out what’s going on.” The aim was to create somewhere people could explore, learn and interact with the space in an engaging way, particularly for children.

A key theme throughout the meeting was biodiversity and reconnecting people with nature. Ulrike expressed concerns about the “loss of biodiversity” in urban areas and wanted the project to raise awareness of ecosystems, microorganisms and pollution in a way that felt interactive rather than overly formal. One suggestion included “a mural wall” with “real information and artsy bits that’s appealing to children,” combining education with play and creativity.

Ulrike also wanted the project to visualise environmental systems, using planted landscapes to absorb “oily residue and pollutants” before reaching the River Medlock as “clean water.” She highlighted that “there’s lots of vandalism,” so materials needed to be durable, suggesting rusted iron, copper and wood. Overall, the meeting helped clarify how the project could combine nature, education and community in an engaging way.



Pre Action Week Activities

Week 1 – Site Visit

We visited the Manchester Institute of Biotechnology site to understand its layout, atmosphere and circulation through photography, sketching and observation. We focused on key areas highlighted by Ulrike, particularly the entrance and courtyard, noting movement, materials, seating, planting and the relationship between built and natural elements.



Week 2 – Poster Design

We developed the 100-word project description, confirmed the project name “Petri of Play”, and created poster concepts combining children’s play with the visual language of a petri dish to reflect the biotechnology context.



Weeks 3, 4 & 5 – Delegating Tasks

We organised and divided key project tasks, including the timeline, budget, risk assessment and ethics, with two people assigned to each area.

Works Subtotal, excluding VAT	£113,260
Contingency, 15%	£16,989
Total, excluding VAT	£130,249
VAT Allowance, 20%	£26,050
Total, including VAT	£156,299

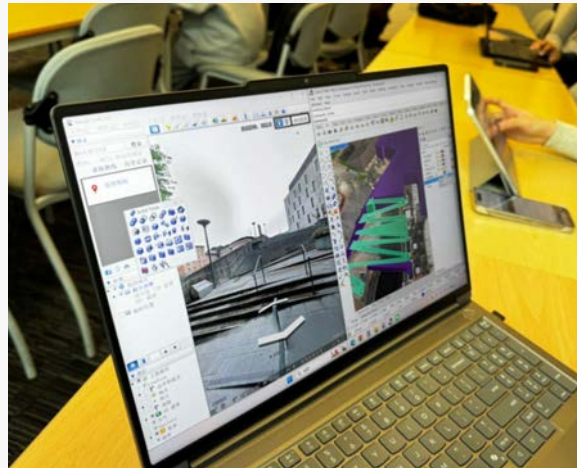
Budget Approximation

These were then developed independently, completed and submitted, before uploading our progress to the project blog through images, sketches and written descriptions.



Week 6 – Digital Model

We began developing the digital site model to better understand the scale, layout and connections across the site, while testing early ideas for activity spaces.



Week 7 – Questionnaires

We created questionnaires for MIB staff and site users, focusing on learning, atmosphere, play and what people wanted from the courtyard space.

Week 8 – Questionnaire Distribution

Ulrike distributed the questionnaires, while we shared our concept sketches with her and used her feedback to refine the courtyard ideas.

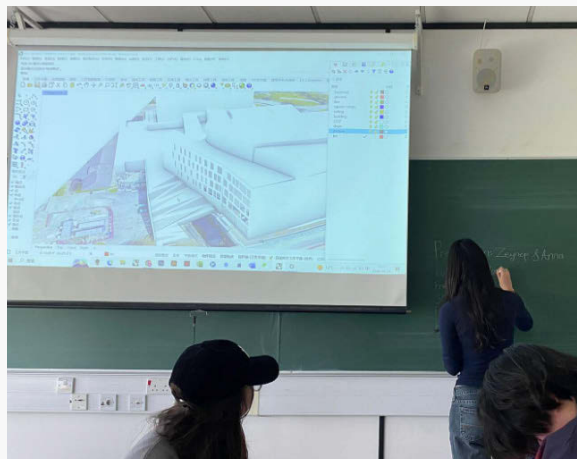


Week 9 – Feedback and Design Development

We reviewed the questionnaire responses and identified key themes around nature, interactive learning and calm spaces, which informed our final design direction.

Week 10 – Final Designs

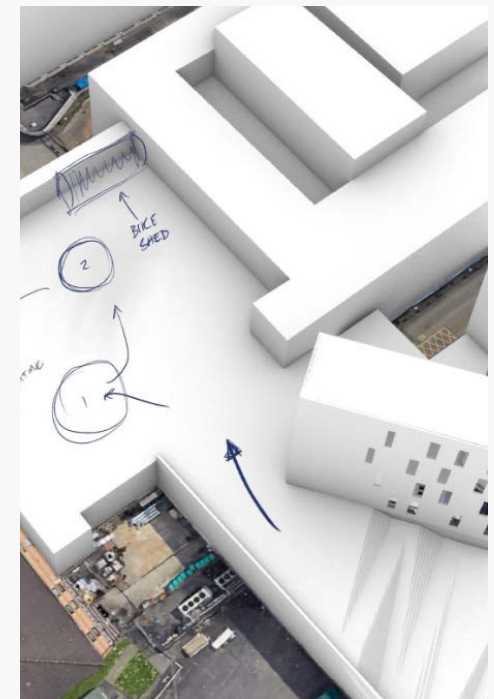
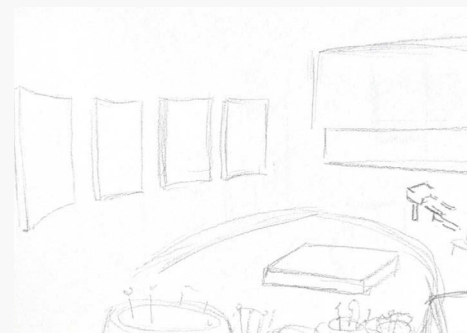
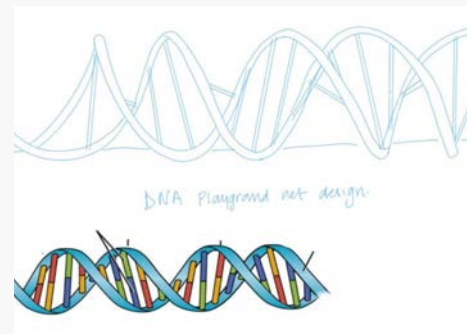
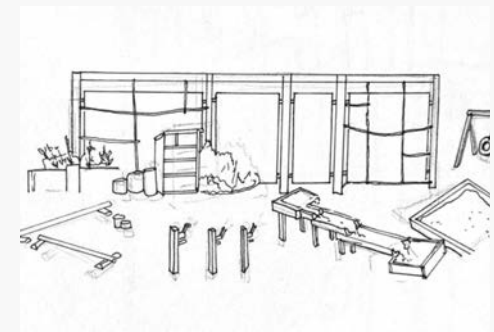
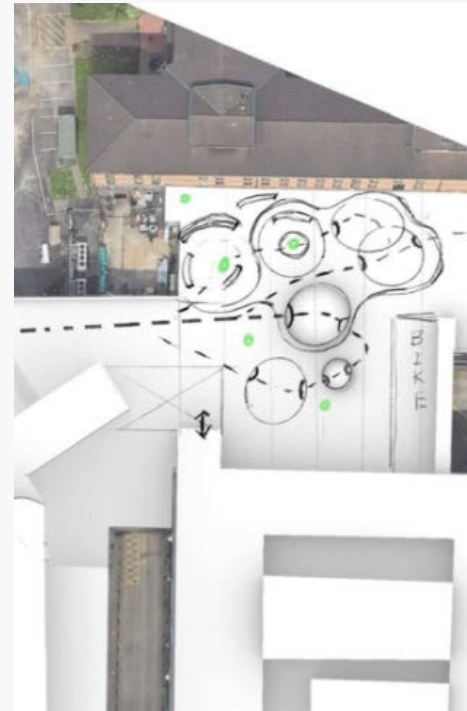
We developed the final courtyard designs in more detail and placed them into the digital model to test how they would sit within the site.



MSA Live x MIB: Designing an Interactive Exhibition Space

We are working on a project to transform the exterior of the MIB into an interactive exhibition space. The goal is to take the research happening inside our labs and make it visible and inspiring for the local community.

By combining creative design with educational growing beds, we want to create a welcoming "living laboratory" in the heart of Manchester. Please share your thoughts on how we can best communicate our work and create a meaningful space for public engagement!



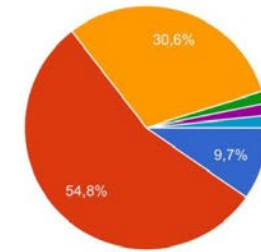


Intensive Week Activities

Reflecting on public feedback.

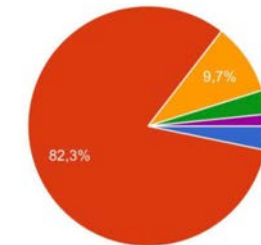
During pre-action week, we engaged with both users of the Manchester Institute of Biotechnology and members of the wider public, including parents connected to the nearby primary school. This engagement was carried out through a public survey created by us, which asked people what they would like to see in the space and how they imagined an interactive public exhibition outside the building. During intensive week, we reflected on the feedback gathered from the survey to help inform the direction of the project. A clear theme throughout the responses was the desire for a nature-focused sensory space that felt interactive, and exploratory. Many people responded positively to the idea of greenery,

How do you like learning new things?

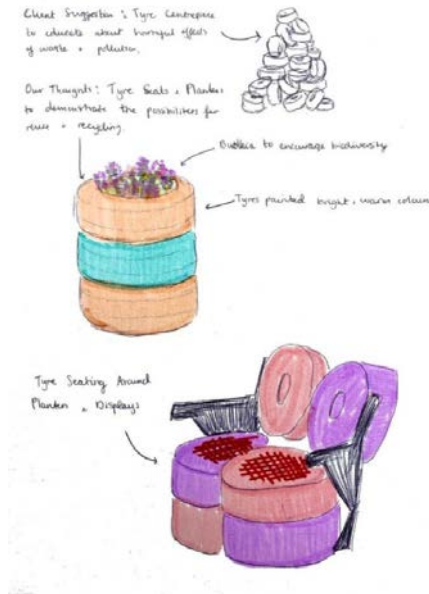


- Watching videos 📺
- Touching and trying things 🙌
- Reading simple facts 📖
- both reading and touching never videos
- Listening and seeing, not reading
- Listening to people

What should this place feel like?



- Cozy and warm 🏠
- Like nature 🌿
- Like a science lab 🧪
- Like a playground 🎡
- Inviting and communal



Site Visit

We visited the Manchester Institute of Biotechnology for a second and final time to gain a better understanding of the work taking place within the building. During the visit, we were given a tour of the institute and introduced to some of the research currently being carried out, allowing us to better understand the innovative and collaborative environment of the MIB. This visit helped strengthen our understanding of how the proposed interactive exhibition space could better reflect the research, creativity and experimentation taking place inside the institute.

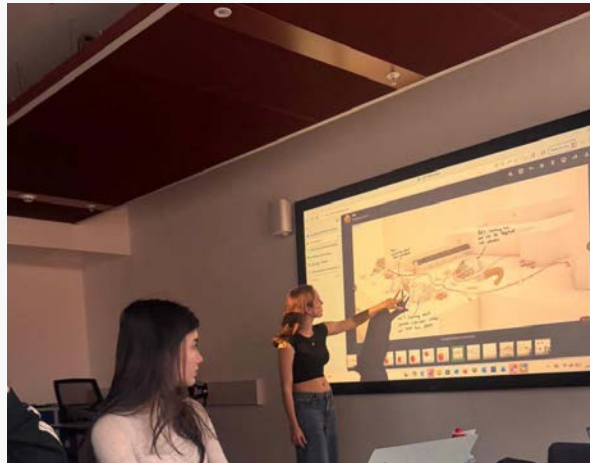


Refining Design

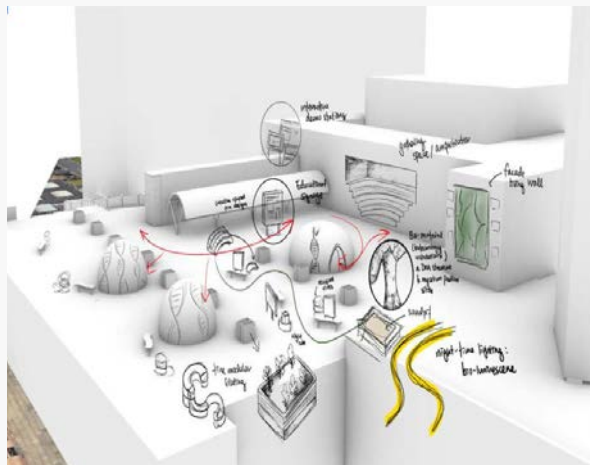
Being equipped with the site visit and feedback gathered from the surveys, we began developing a range of design ideas centred around interactive educational pods and playful structures. The proposals focused on creating an engaging space for children while remaining safe, accessible and minimally interventionist. Ideas included painted ground graphics, playful pathways and small-scale structures that encouraged interaction without overwhelming the existing site.



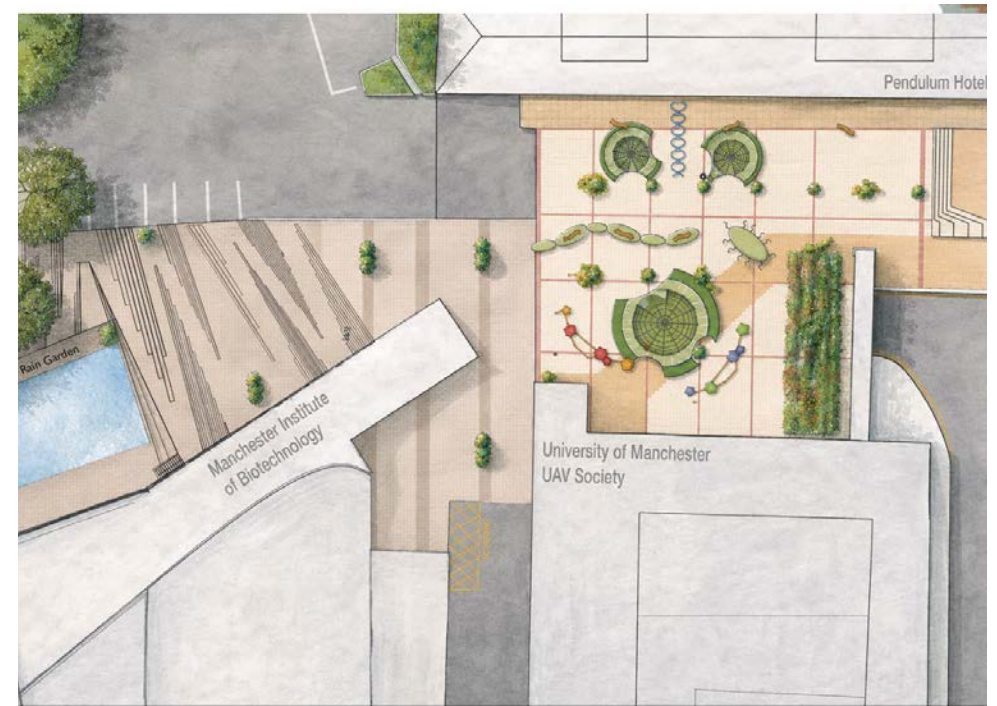
As a group, we presented and discussed multiple concepts before deciding to combine the strongest elements from each proposal. This led to a final direction that incorporated colourful ground paint, interactive pods and small play infrastructure inspired by DNA forms and cell structures, reflecting the scientific identity of the Manchester Institute of Biotechnology. Throughout the design process, we kept safety, vibrancy and social interaction at the centre of the proposal.



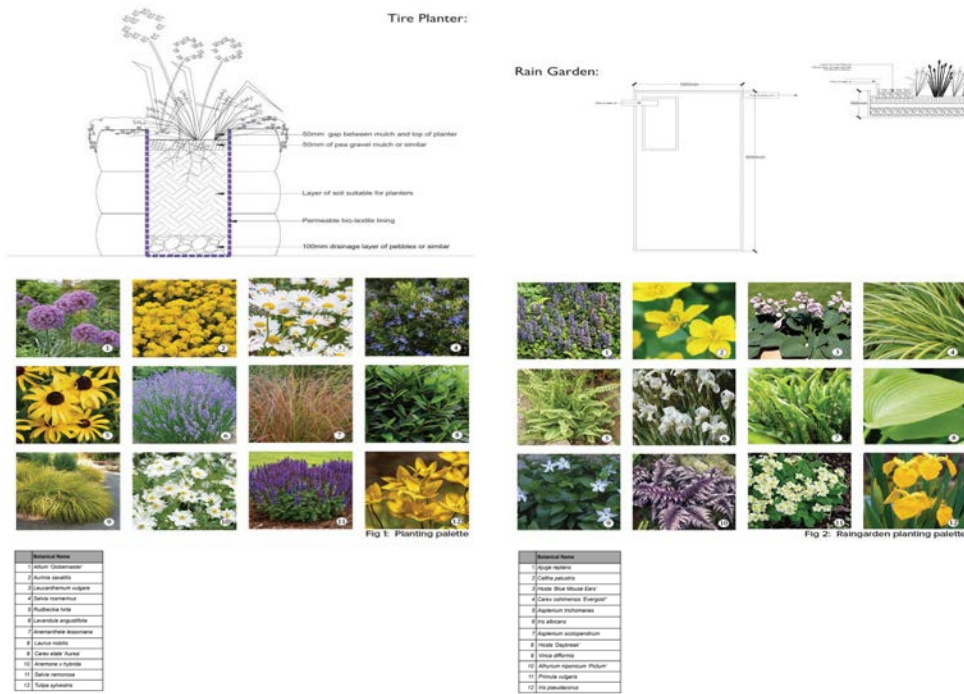
As the majority of survey responses expressed a desire for a more nature-based environment, we also explored ways of incorporating greenery and biophilic elements into the design. Sustainability was another important consideration, leading us to research precedents such as the Eden Project and explore the use of recycled and durable materials, including reused plastic and steel.



Final Outputs



Group Reflection



This has been an exciting opportunity to create a space inspired by both technology and nature. Our final proposal uses sustainable and recycled materials, including plastic and steel, with tyre planters painted purple and yellow to represent the University of Manchester. The proposed flowers and planting also follow this colour palette to strengthen the identity of the space.

The interactive pods will share information for children and the wider public, helping them learn about science, biotechnology and the research taking place inside the MIB. We are really grateful to our collaborator for giving us the chance to work on such an enjoyable and meaningful project.

Working as a group reminded us how important it is to communicate clearly and regularly. Checking in with each other and our collaborator helped us stay on brief, make decisions quicker and avoid wasting time.

We also learnt that splitting the work fairly makes the process much smoother. Giving tasks to people based on their strengths helped us manage the workload better and made sure everyone had a clear role.

The project also showed us the importance of being flexible. Our ideas changed through site visits, questionnaires and feedback, but this helped us create something that responded better to the site and the people using it. Overall, it was a useful experience in teamwork, organisation and working with a real collaborator.



ABOUT

Each year the MSA LIVE programme unites Masters Architecture year 1, Masters of Architecture & Adaptive Resuse students, BA foundation and year 1 and Masters Landscape Architecture 1 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 are for community benefit or 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 students take the lead in the project conception, brief development, delivery and co-ordination of a small project. The projects are celebrated in presentations 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 400 students from 5 cohorts in MSA have worked on 34 projects with partners.

QUESTIONS

For questions about MSA LIVE please contact the MSA LIVE team, Emily & Julie:

e.crompton@mmu.ac.uk and j.fitzpatrick@mmu.ac.uk

BLOG

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