

# MANCHESTER SCHOOL OF ARCHITECTURE



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## MSA LIVE 22

## Team

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## Partners

We would like to thank our collaborators (City of Trees) for providing us with this opportunity to create such a beautiful park: Barnfield Park, Prestwich, England.

The City of Trees is delivering a green recovery and tackling the climate emergency head on by planting trees and restoring woodlands. This will help the people and wildlife of Greater Manchester. Their goal is to create an ambitious movement that will plant trees for every citizen within five years with the help of communities, businesses, and organisations.

The tree industry is crucial to helping us address the climate crisis.

City of Trees has been delivering on the climate change agenda. They are planting trees that will help Greater Manchester become carbon neutral by 2038. As part of their research, they also look at how Nature Based Solutions, such as trees, can help adapt and strengthen our urban areas against various environmental challenges including air pollution, flood risk, extreme weather, and flooding.

Website: <https://www.cityoftrees.org.uk/>

# Agenda

## Home for City of Trees

Manchester School of Architecture's live project 2022 group 31 looks into collaborating with the Environmental charity, City of Tree. The aim is to contribute to Barnfield Park as a locality, whilst conserving and enhancing its heritage assets, for the benefit of the community and visitors. Participating students (Undergraduate student) will engage in the live project by doing site analysis, precedent stud , translate sketches into 3D visualisations, and reusing an existing materials and objects on site.

Designing the headquarters for City of Trees: The new home for City of Trees will be a hub for community engagement and training for jobs in forestry. Located at Barnfield Park, the site used to be a horticulture centre and now serves as a welfare place for civil workers. Currently, there is a 1970's single story building that is attached to interconnecting glass houses; and also, polycarbonate tunnels that could be infrastructure for pop up events. So, taking environmental sustainability as an important aspect for the client and our design ethos, the challenge is to design a scheme that preserves the heritage of the site by reusing the current building and materials into functionable work and training spaces for the City of Trees (i.e: offices, studios, workshops, tree nursery etc.) Through visual graphics and design development, we want to provide ideas for how this headquarters could look, function and engage with the local community. Therefore, we will be leading a series of workshops with the BA1&2 students to come up with designs based around creative ways to reuse the existing structures and an overall masterplan. This will lead to final idea presentations and, if successful, idea implementation.

### Key Points

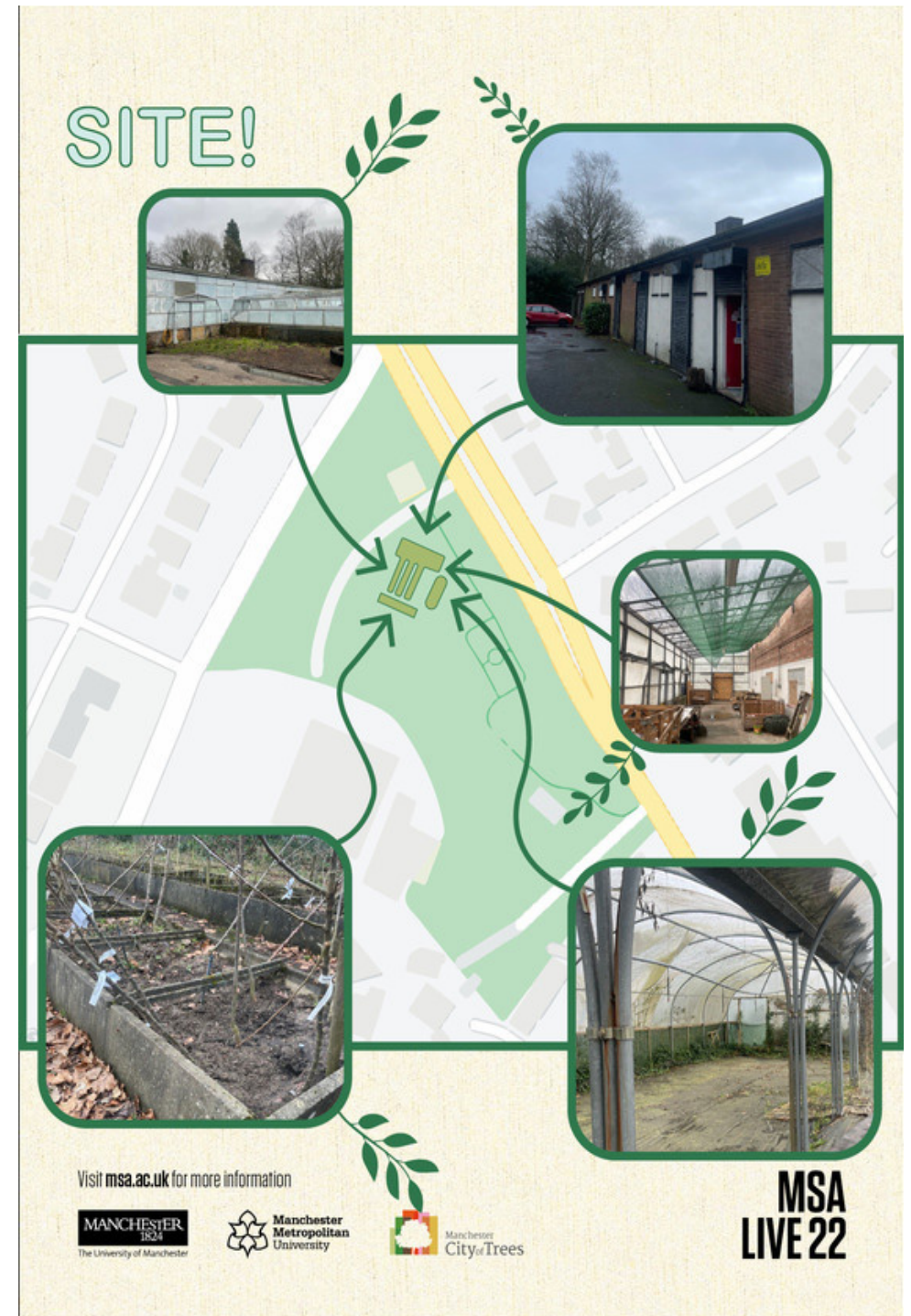
1. Building Reuse
2. Sustainability & Greening
3. Community engagement
4. Training for jobs in forestry

# SITE VISIT

The morning of the site visit we met with the students for the first time in the Co-Works. We started by introducing ourselves and giving a little information about our backgrounds and the work we had been completing this year. We asked the students why they chose city of trees, then explained the brief to the students along with all the information we had already gathered regarding the Barnfield site. This information allowed the students to start their idea process. We emphasised a focus on environment and sustainability along side the possibility of reusing items on the site. After we answered any questions and clarified any loose ends, we broke for lunch.

After lunch we met at the bus stop to take the bus together to the Barnfield site. The bus took half an hour before a short five-minute walk to the site. We rendezvoused with Alex, a member of city of trees on the site who opened the site to us and showed us around. He also explained any existing ideas the City of Trees organisation. The students were free to explore the site, many used the opportunity to take site photos, and some sat and drew sketches on site. We concluded the day by talking about our initial ideas and allowed the students to leave to continue their thinking.

Image (Right)  
Existing Structures and  
Materials on site.



# SITE ANALYSIS

## Site Analysis

The students were split into three groups, looking at history heritage, materiality, environmental analysis, and site accessibility respectively. Understanding the history and materiality was crucial to preserve the original heritage of the site as a horticulture centre. The students also identified different types of materials that is suitable for being reused: polytunnels, polyethylene, timber strips, bricks, single panel glasshouses and plastic flowerpots. Most of the masonry structure can be reused, whereas the flowerpots can be reused for furniture proposal as material reuse is part of meeting the sustainability ethos of the client.

Next, the environmental analysis was crucial to integrate passive solutions to the site. Looking at the sun path to maximise natural daylighting to save energy; and then the natural prevailing wind to encourage natural ventilation; and finally, the temperature and humidity of the site, which is important aspect to consider creating a suitable environment for plant growing.

Finally, the students looked at existing ways of reaching the site, including public transportation of bus, trams and cycling. The safety of the site is to be noted as it is currently only surrounded by a 2m fence and a single gate. At the moment there is also only one entrance to the site, which we then decided to add another one to increase the circulation flow around the site.

## Zoning

The second half of the day we looked at the zoning and master planning of the site. Understanding the client's needs for a headquarters, we've decided to reuse most of the structures already available on site, while just integrating new functions to relive the space. We put together concerns of public, private access as well as organising ample space for offices, meeting rooms and training spaces. We also added spaces for garages as it is one of the requirements needed to store the big lorries for saplings/tree transportation. The storage spaces are located at the back of the site.

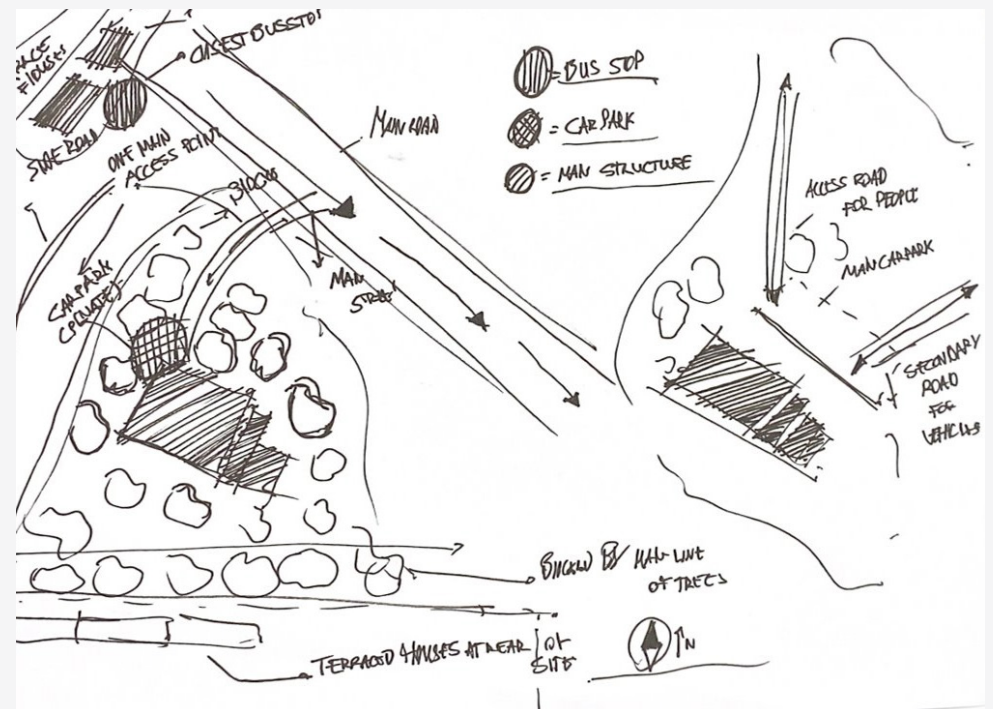
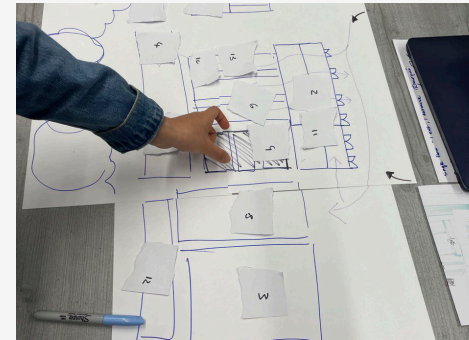
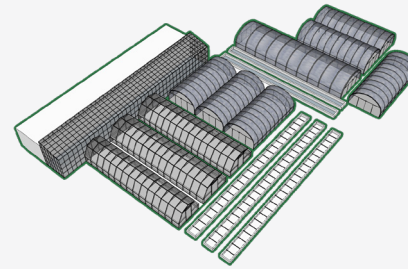


Image Top:- Left  
The axonometric view of the existing buildings and structures on site.

Image Top-Right  
The analysis on the entrance of the site with its pedestrian opportunities.

Image Middle-Top (Left):  
Discussions on the Masterplanning and Zoning of the site.

Image Bottom  
The accessibility analysis of the site by foot, bicycle and bus.

# PRECEDENT STUDIES

Once students had decided their groups and what zone they were working on within the project we instructed them to go away and research relevant precedents that could inform their design development. Most students had looked at two case studies and identified the key ideas of the precedent. Some students had gone as far as looking at how this idea could be implemented within the Barnfield site. After each student had presented their idea, we discussed as a group how this could be implemented within the site and recognised key principles of the horticultural building vernacular. Relationships such as the link between inside and out, using vegetation and planting to improving wellbeing of a space and how shading and louvers can be used to make a glass space that can be used during every season.

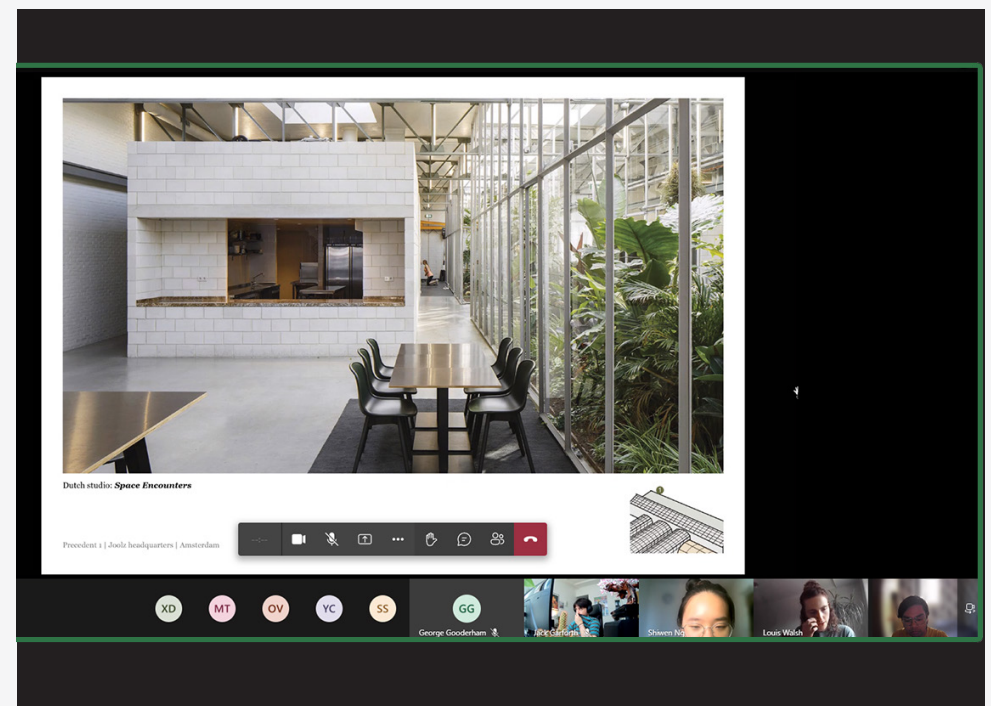


Image Top:- Left  
The Kings Cross Skip  
Garden by Charlie Redman  
(2016).

Image Top-Right  
Proyecto Roble / Équipe  
Voor Architectuur En  
Urbanisme

Image Middle-Top (Left):  
Shipping Container  
Pavillion by Atelier Let's  
(2019).

Image Bottom  
The exploration through  
precedents to generate  
ideas or the site.



# VISUALISATION DAY

## Sketching workshop

Based on the zoning that was allocated on the previous day, students started exploring ideas through initial sketches. Discussion within each group which was then explored further after discussions with the master's students, sketchy visuals, proposals, and final visualisation views were produced.

## 3D Visualisation Workshop

A 3D Workshop was held in the afternoon on one of the days to introduce 3D software such as Sketchup and Rhino which was then further explored by the potentials of each software. Later, render software such as Enscape and V-Ray plugins were introduced as well for them to understand the endless possibilities of rendering.

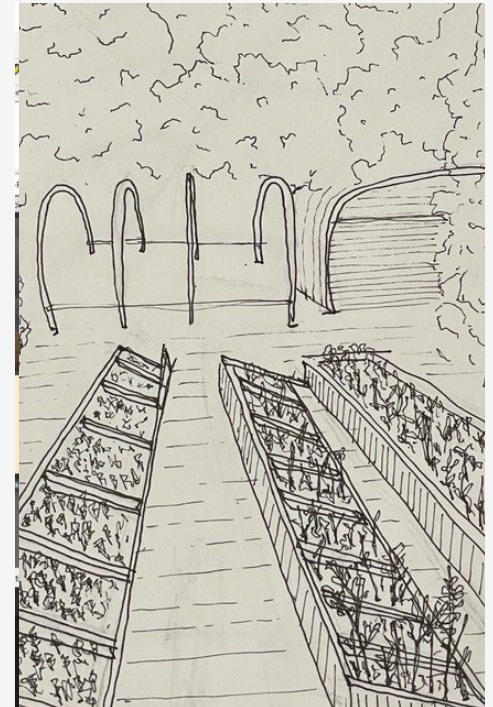
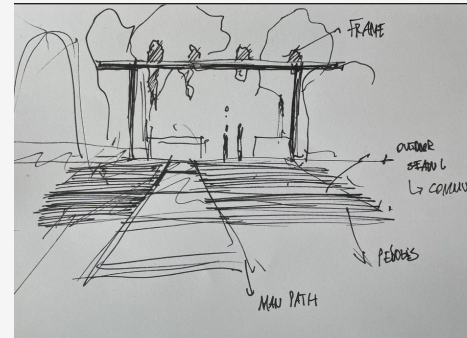
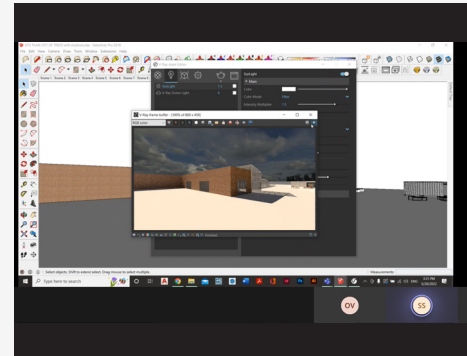
We also presented each of our own portfolios from undergraduate studies as well as our first year of MArch work to show them different types of visuals they could possibly produce with different mediums such as computer renders, pencil drawings, physical modelling as well as collages to help enhance their 3D visualisations.

Image Top:- Left  
The 3D Visualisation  
Workshop that was ran  
online via Zoom.

Image Top-Right  
A sketch by Pablo Forero  
Mesa on the Semi-  
Enclosed Canopy near the  
tree nursery on site.

Image Middle-Top (Left):  
A sketch by Matthew  
Tonge and George  
Goodham on canopy  
ideas.

Image Bottom  
A model made by Matthew  
Tonge on exploring canopy  
fluidity with wires.



# FINAL OUTPUT

Students arrived with work that was 95% complete. The meeting allowed us to critic their work to make it more accessible for the final presentation. Small changes included increasing the brightness of some images and talking to the students about how they would mount their visualisation.

We helped students with their printing as it was the first time, they used wide format printers. Once they had their visualisations printed, we put the images onto mountboard for the presentation.

Alongside the physical prints a PowerPoint document was created combining all the students work, this presentation would tell the story of the development of their ideas. Each section related to each component of the site including the brick building and glass tunnels, the poly tunnels, and the new office space.

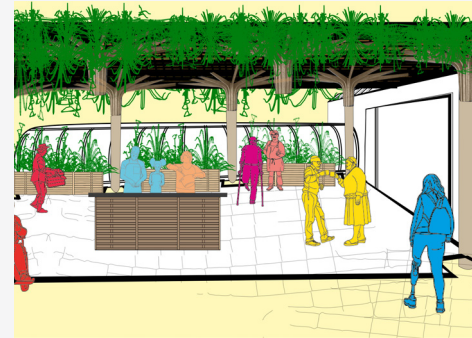


Image Top:-Left  
A Canopy Proposal by George Gooderham that will be reusing polytunnel structures .

Image Top-Right  
The front entrance for the new headquarters of the City of Trees, reusing bricks and existing containers on site by Olga Vlasova.

Image Middle-Top (Left):  
A proposal by Yiran Chen on multipurpose halls in the polytunnels.

Image Bottom  
A proposal of flexible meeting spaces in the glass houses by Louis Walsh.



# EXHIBITION DAY

On the day of the exhibition, we met a Manchester School of architecture then walked as a group to the City of Trees office that's located in the centre of the city. We arrived promptly at 11:30 to set up the conference room for the presentation. We had compiled a PowerPoint including site analysis, precedents, sketches, idea development and final visualisations so the students could speak in order and fluently talk through their own ideas. We mounted print outs of the final visualisations on boards and fixed them to easels so the images could be viewed as we went through our presentation. We finished the morning by talking through our plan for the presentation and answering any questions or concerns the students had about the presentation. As it was the last day with the first and second-year students, we invited them to lunch to reduce any nerves they had about presenting.

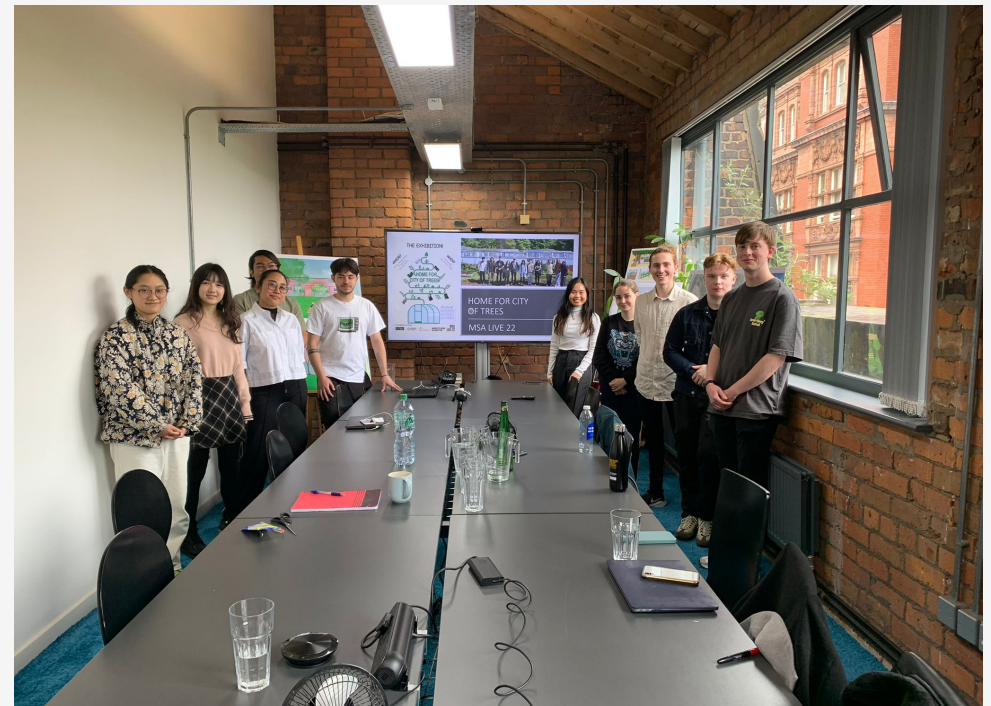
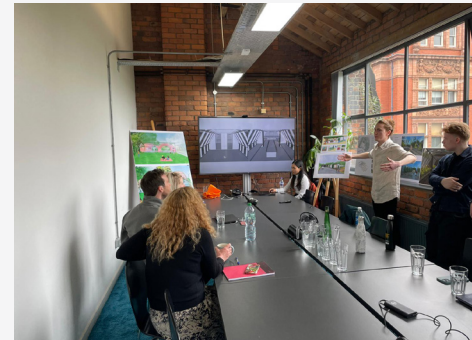
The presentation started at 2pm with members of the City of Trees organisation. We started by introducing ourselves and the project before explaining our process as Architects so they could understand the way we think about problems on the site. After this it was time for each of the students to talk. The students started with their site analysis before moving on to their ideas, design development and final visualisations. The presentation concluded with a Q&A to answer any further questions the members from City of Trees had. Jessica the spokeswoman from City of Trees emphasised how impressed she was with all the student ideas and could not believe the quality of the visualisations. They went on to say how many of the students' ideas were things they hadn't even thought of themselves and the document we produced for them would be so helpful for them receiving funding for the project. All the student presents spoke extremely well and acted very professional, we were all impressed and proud. We concluded the day by exchanging contact information with City of Tree so we can stay in touch as they progress their project.

Image Top:- Left  
Students presenting their ideas to the City of Trees.

Image Top-Right  
Discussions on the possible accessibility opportunity on site.

Image Middle-Top (Left):  
Louis Walsh presenting his proposal on the glasshouses for flexible meeting rooms.

Image Bottom  
The group photo at the end of the presentation.



## 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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