

MANCHESTER SCHOOL OF ARCHITECTURE

Team Members:

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There are 150 Loreto schools across 6 continents and our brief is to create a conceptual design for a new school in Aweil, South Sudan. Through a series of workshops, we will collaborate with Loreto students. Our findings from this will inform how the new school building can support the students, teachers and wider community.



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Team

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Collaborators

Our collaborators are Laura Sanderson and Loreto College Manchester!

Laura Sanderson is an artist and educator whose work focuses on community engagement, storytelling, and collaborative making. Her passion for working with children and young people has led to the development of creative workshops that use drawing and making as tools to help students better understand architecture and the spaces around them.

As a collaborator on the Aweil school project, Laura led Workshop 2, where students explored the cultural and environmental context of South Sudan through collage-making and visual storytelling. Using images and references to daily life in Aweil, students developed creative responses that informed key themes within the project, including community, agriculture, gathering spaces, and outdoor learning.

Loreto College Manchester and its Architecture Society were important collaborators within the Aweil school project, contributing through a series of creative and participatory workshops. The students played an active role in exploring ideas around community, learning, sustainability, and spatial organisation, using drawing, collage-making, mapping, and model making to develop design responses for the school. Their involvement helped shape key themes within the masterplan, ensuring the project was informed through collaboration, discussion, and shared creative thinking.

Introduction



Learning with Loreto

The Loreto Education Trust is exploring the development of a new school in Aweil, South Sudan.

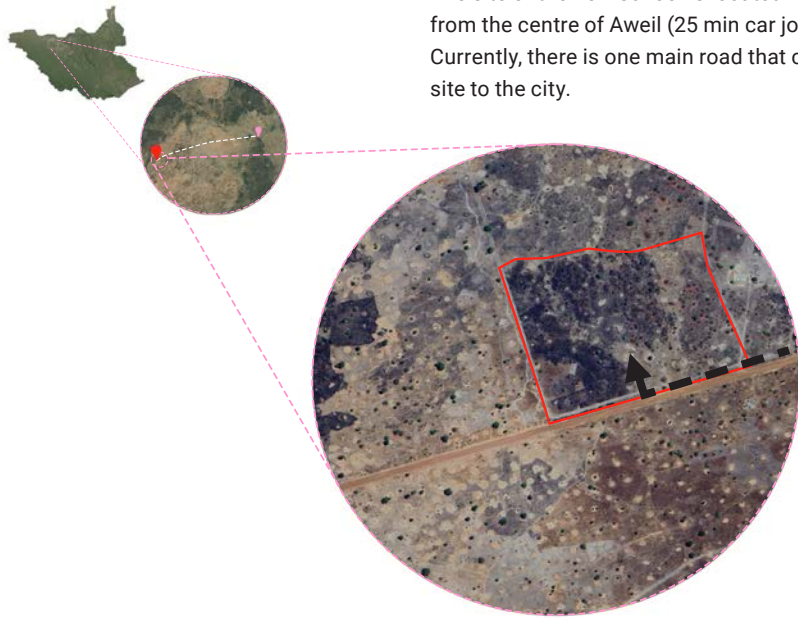
Loreto is an international organisation operated by members of the Institute of the Blessed Virgin Mary, a Catholic congregation dedicated to the education of women. The organisation currently operates some 150 schools worldwide, including Loreto College Rumbek and Loreto Manchester, both of which were integral to our research and design process.

We collaborated with Loreto College Manchester to brainstorm a concept for this new school. This was done through a series of after-school workshops with members of Loreto Manchester's Architecture Society. The ideas and key themes we derived from these workshops were used in our conceptualisation of the school. We hope Loreto Education Trust can use these outputs to raise awareness for the school's creation.

This project required thorough contextual analysis, which was communicated with members of Loreto Manchester's Architecture Society throughout the workshops. In order to create a meaningful and sensitive design response, we considered South Sudan's cultural heritage and political context. By understanding the factors that limit access to learning, we developed spaces that are both functional and socially impactful.

This publication details our collaborative design process and the final output.

THE SITE AND OUR RESEARCH



The site of the new school is located 12km away from the centre of Aweil (25 min car journey). Currently, there is one main road that connects the site to the city.

RESEARCH INTO LORETO

South Sudan faces one of the most severe education crises globally. Political instability continues to hinder effective education delivery, with the system under significant strain from conflict, displacement, and climate-related instability. Female participation in education is particularly low, with only 2.6% of girls attending secondary school. Patriarchal social structures often place greater value on domestic responsibilities than education for women and girls, contributing to high dropout rates. School infrastructure is another major barrier as inadequate sanitation facilities, combined with menstrual stigma, can make regular attendance especially challenging for female students.

These issues were presented to the Architecture Society students, prompting discussions on how our design decisions could help address some of these challenges.



WORKSHOP 1 - INTRODUCTION TO LORETO MANCHESTER

The team visited the Loreto Manchester Architecture Society, where we introduced ourselves and presented the project. The session was structured around three small activities, each designed to replicate stages of the architectural design process and encourage students to "think like an architect."

Task 1 – Concept Sketching

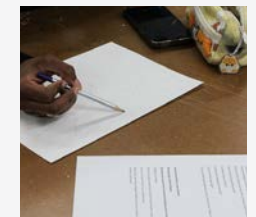
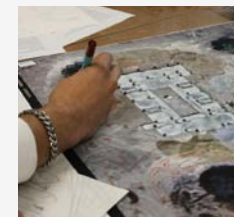
We began with a quick sketching exercise where students drew their favourite spaces. This encouraged them to think about what makes a space meaningful and how these ideas could be adapted for the new school in Aweil.

Task 2 – Spider Diagrams

Students then developed their ideas further through spider diagrams. This activity helped them explore how their chosen spaces and concepts could function within a school environment and how different areas might connect with each other.

Task 3 – Masterplan Creation

Finally, using their sketches and research materials provided by us in an information pack. Students worked in groups to create a masterplan for the school. This allowed them to apply their ideas collaboratively and think about the overall layout and organisation of the site.



WORKSHOP 2 - WORKSHOP WITH LAURA

After Easter, we developed a brief for the session with Laura, asking students to individually explore one chosen space within the proposed school and present their ideas on paper. This encouraged students to further develop their design thinking by focusing on a specific area of the school and considering how it could respond to the needs of the community and environment.

To support this process, Laura introduced the students to a series of images representing life in South Sudan. These helped students gain a stronger understanding of the local sense of place, including the landscape, climate, culture, and daily routines. Using these references, students created their own collages and visuals to communicate ideas for the school's identity and atmosphere.



WORKSHOP 3 - FINAL WORKSHOP

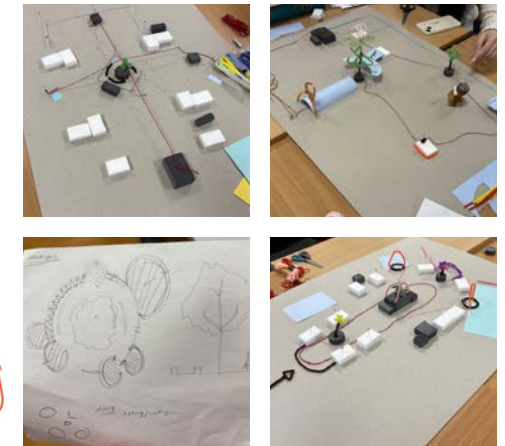
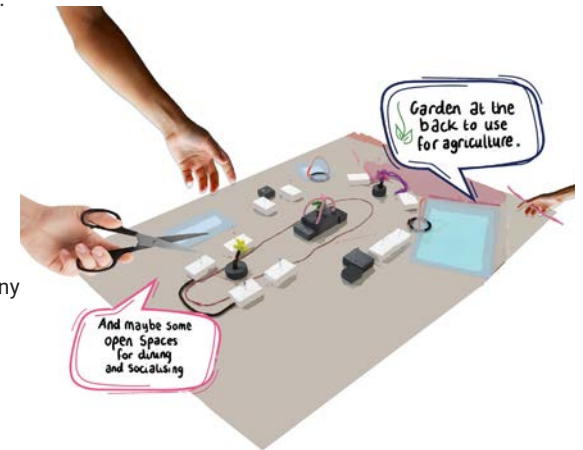
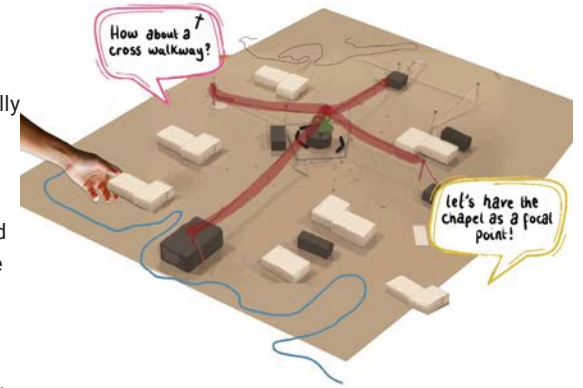
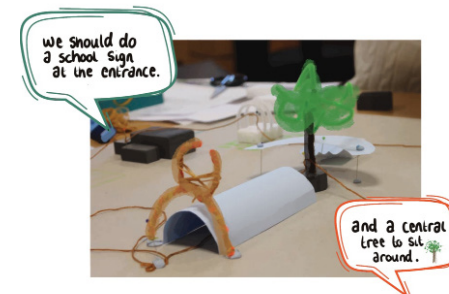
For the final workshop, students used model making to think three-dimensionally and develop their design ideas further. Working in groups, they created 3D masterplan models using simple craft materials to explore the layout, scale, and relationships between spaces across the school site.

Key themes emerged from the workshop:

Symbolic Routes and Pathways – Students developed cross-shaped circulation routes centred around a communal gathering space, connecting key areas such as agriculture, worship, dining, and the main entrance.

Central Multifunctional Tree Space – Many proposals included a large central tree that acted as the heart of the school, providing space for assemblies, events, play, and informal community gathering.

Some students had research how passive ventilation worked in South Sudanese vernacular architecture. This led the students to consider how water could be reused for an affordable system.



CONCEPT DEVELOPMENT

Using the material produced in the workshops, the team produced design development collages of the key spaces, representing our key findings from the workshop.



Centre Tree - A centred tree in the centre of the masterplan will provide a natural space and shading for the children. This will form a multifunctional space such as at break times, for event space and for outdoor learning.



Agriculture - To support their curriculum of agriculture, creating a space that provides space for food crops as well as new planting will create unique outdoor learning space.



Onsite nursery - To support mothers on site nursery will provide care and support for young children/babies. This will allow women to continue with their learning or teach.



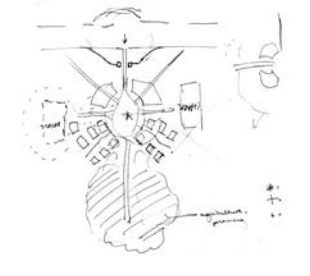
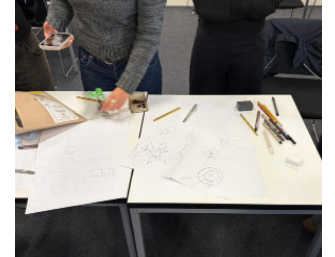
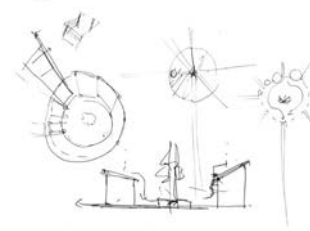
The classroom blocks for students to learn in a range of functional spaces for adaptability with outdoor learning for understanding agriculture.



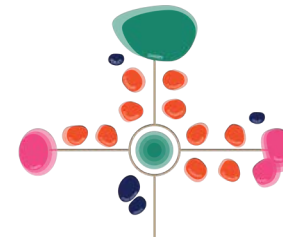
The collages helped translate the students' thoughts and experiences into visual concepts, allowing us to better understand how the school could respond to both the cultural and environmental context of Aweil. These findings informed the spatial organisation, atmosphere, and overall vision for the project, ensuring the masterplan was shaped through collaboration and engagement.

MASTERPLAN ITERATIONS AND PROCESS

Following the workshops, we analysed the students' ideas, drawings, collages, and models to identify recurring themes and design principles. These insights were then used to develop three distinct masterplan iterations for the school. Each iteration explored different ways of organising the site, while responding to the students' key ideas surrounding community, movement, landscape, worship, agriculture, and flexible outdoor spaces.



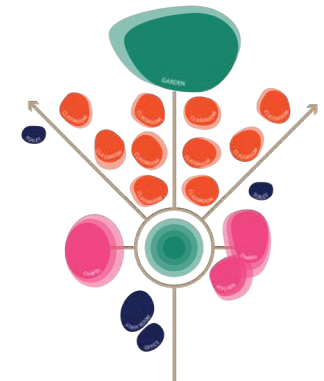
Iteration 1



The team demonstrated how workshop ideas could be translated into early masterplan proposals through sketching, mapping, and testing different site layouts. By exploring multiple iterations, they showed how a masterplan develops and evolves in response to the community and site needs.

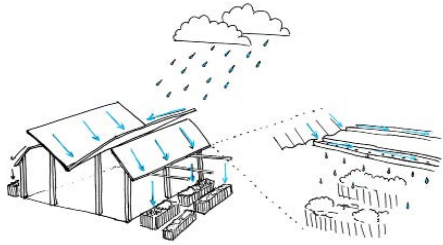
Our final iteration:

Iteration 2

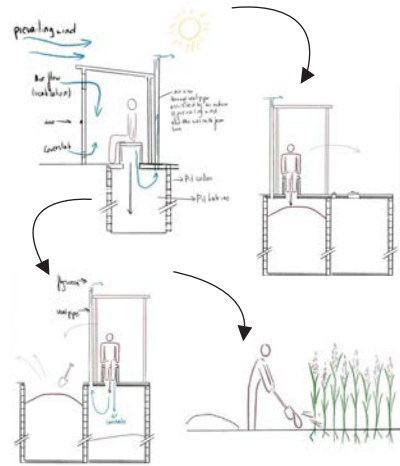


WATER STRATEGY

The water strategy responds to the climate conditions in Aweil through a central gutter system that collects rainwater from the angled roof forms. This water can then be reused for irrigation and onsite agriculture.



The roof design helps manage seasonal rainfall, but also makes the movement and collection of water visible within the architecture, encouraging sustainable and environmental awareness throughout the school.



SANITATION AND HYGINE



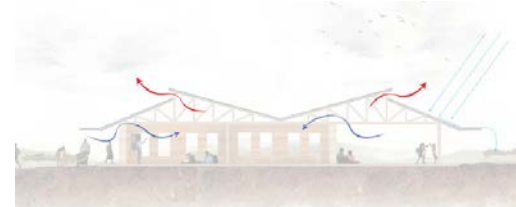
The twin-pit system allows waste to naturally decompose over time, producing compost that can safely fertilise the soil and support onsite agriculture. This creates a sustainable cycle where waste is reused to benefit the landscape and planting across the school site.



CLASSROOM DEVELOPMENT



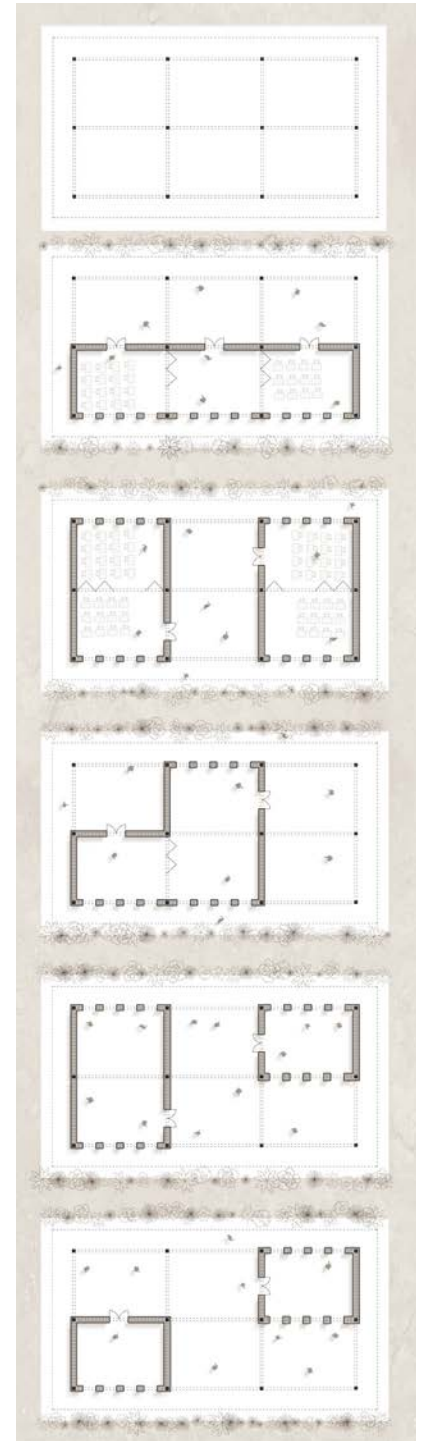
VENTILATION STRATEGY



The classroom layouts were designed to be flexible and adaptable, allowing spaces to respond to different teaching methods, class sizes, and community uses over time. The fixed timber structure with the rammed earth walls and flexible partitions create adaptable configurations that can evolve over the school's lifespan.

The modular plan arrangement enables classrooms to expand, combine, or open into shared learning spaces, creating opportunities for both formal and informal education.

The passive ventilation strategy reduces heat build-up and creates a comfortable learning environment without mechanical systems, while the large overhanging roofs provide shade and protection from sunlight and seasonal rainfall.



MASTERPLAN PROPOSAL



In line with Loreto Aweil's 5 year timeline, the masterplan was designed as a phased development that can expand gradually over time. The classroom buildings are planned to grow in stages, allowing the school to respond to the changing needs of the community while remaining flexible and adaptable for future development.



PHYSICAL MODEL

Through using our development of the third modelling workshop, we chose to create our own physical model as a final iteration for Loreto Manchester architecture society. This process allowed us to understand the phasing of the school developing through time and the key themes that were curated through the MSA live week.



FINAL VISUALS



Central Tree and Pavillion View

The central tree on campus was a key theme for our masterplan, driven by the concepts explored by the Loreto students. In addition a shaded pavillion space for adaptable uses, which connects the chapel and informal dinning space.



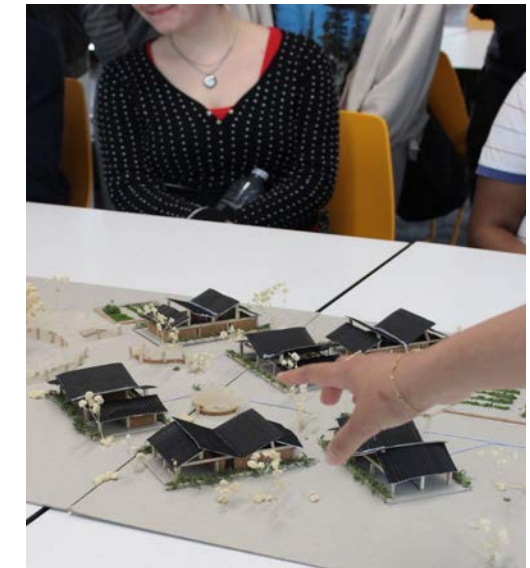
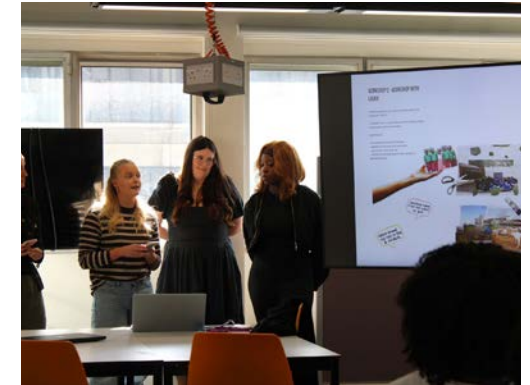
The adaptable modular classroom spaces allow multifunction learning for all ages, these will grow over time. Using sustainable and venacular design methods connects to Loreto's sustainable development goals

OUR REFLECTION

Our Learning with Loreto team has developed a concept masterplan for a new school in Aweil South Sudan, shaped by vertical collaboration between MSA students and the Architecture Society at Loreto College Manchester. Designing in collaboration with the students was key to our project, which allowed us to develop ideas and concepts as well as teaching the sixth form students about Architecture at University. We hope this allows them to engage with architecture for their University applications next year.

This project has showed us that there are many similarities between what we all want from our built environment. For example, the workshops and precedent research consistently brought up the importance of connections to nature and spaces for communities to form. However, we also know that understanding the culture and context of the site during the design process is crucial. This has been a key challenge during our project, as we haven't been able to visit the site or collaborate with the users. We have had to use remote research to try and navigate which of our ideas about the built environment are universal and which vary between cultures and contexts.

On the final day of action week, we invited loreto students into studio where we gave them a tour round the building and then presented our outcomes based on their ideas. Being able to show them how their ideas influenced the outcome was a great way to end the project, as well as answer questions they had about architecture at university. We hope that this project will encourage the students to pursue architecture and complete their own collaborative projects in the future.



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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