Building a civic platform at St. Munchin’s Church of Ireland

SAUL FABRICATION PROJECT

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Introduction by
Morgan Flynn

Fabrication Project: Civic Platform

The fabrication project posed several challenges for students and staff. Firstly, there was the challenge of the brief. The brief was deliberately open ended, aspirational in the nature of its goal. This goal being the transformation of the existing fabric into a place where the city and university could meet both physically and intellectually. The students themselves had to find the route to this goal, allowing the project to be flexible enough not to limit the potential of this space. The second challenge was working collaboratively. Physically, this was clearly to be seen when large components had to be moved or worked on. But perhaps the bigger leap for the team was designing collaboratively.

Within a week of the start of the project, the team had discarded the concept of individual designs which had to be protected at all costs and had embraced the idea of designing as a group. The majority of the team had little previous experience of building. The learning of the new skills required to put the components together was impressive, but the skill in very carefully considering how every joint should be made, how every screw should look, how every surface should look, how the insertions should touch the existing fabric was even more important and impressive. The real success of this project has been that it shows the transformative potential of architecture. The church has been transformed into a dance studio, a community meeting place, a teaching space, a review space, a cinema, a recording studio. This is the real measure of its quality.
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Saul Fabrication project was the first build project to be undertaken by the School of Architecture in the University of Limerick. A group of 6 students collaborated in a "7 week design, 7 week build" to transform Old St. Munchin’s Church, King’s Island, Limerick into a multi-functional space. The brief required a civic platform for the School of Architecture and the University within the city. The church is ideally situated in the historic part of the city, adjacent to King John’s Castle and the Medieval City Walls.
The current church was erected in 1827, replacing an existing church on the site. In 1968, St. Munchin’s Church was deconsecrated and fell into disrepair until Limerick Civic Trust began restoration in 1988. The graveyard surrounding the church is still in use today.

The Island Theatre Company had occupied the church for many months, using the facility for storage, stage design and rehearsals before the University of Limerick took possession in 2008.
We hoped to design an adaptable space which could facilitate many different functions. It was important to us that historic fabric of the building remained intact and not be damaged by the project. To achieve this it was decided that the project be an insertion or installation that complimented the church, that could change its use without overpowering the original structure. Several people in the local area had never seen the inside of the church and so it was felt that the project should also be open to the public. Although the church is

Interior of Main Church Space
situated in the historic area of Limerick it is also adjacent to some of the more deprived areas of the city.

It was hoped that this project would not only be used by the University of Limerick and the School of Architecture but also serve the local community.

Initial impressions of the space was that it was cold, dark, uninhabitable and unloved. Although the bulk of the effort would be focused on designing the intervention the group also felt the church itself needed some attention.
Our first reaction was an attempt to break down the grand scale of the church into a space more suitable for intimate gatherings. This was attempted through the introduction of a datum line which divides the space vertically. This datum consisted of a series of 3m high poles. Adjustable furniture were integrated into the pole system. This furniture could be folded, stacked or concealed within a platform. A main concern was the requirement to provide seating for 100 people and where this seating could be stored, when not in use. From these discussions, five main ideas remained.
dominant, the need for hanging space, seating, lighting, a large table for conferences, a coffee dock and a projector dock. Also, subtle changes would need to occur within the church, most importantly the repainting of the floor and wainscotting. It was felt the existing black surfaces were absorbing too much light and making the space inhospitable. A decision was also made for the removal of an existing partition wall to reconnect the office space under the mezzanine to the large open space of the main church.
Time or the pressure of time was becoming a major constraint. The 7 week design/7 week build meant all divergent ideas within the group had to crystallise quickly.

It was decided that 3 main spaces were required by the brief.

1. Crit Space
   Where student presentations and critiques could be accommodated.

2. Lecture Space
   Where talks and meetings can occur particularly between the School of Architecture and the city.
3. Nothing Space
The space that exists when there are no organised events in the church.

To achieve the requirements of these spaces we designed a proposal that used flexible parts with a fixed location. By using a platform to serve as storage the seating could be pulled out of the floor when needed. The poles have canopies that could be lowered and pivoted to create tables, places vertically to provide screens and placed aloft to provide a canopy.
The project took a radical departure at this point as the group were now convinced that the most viable way of achieving the brief was to adopt a “fixed parts, flexible location” approach. Hence we began to concentrate on a single component that could house the screens, seating and lighting and be used to break up the space within the church. After analysing the floor space it was decided that 4 components and the coffee dock was the optimum amount that could be installed while still achieving the brief requirements.
The framework consisted of 3m vertical poles made from 18mm birch plywood. Aloft these poles were 2 fabric covered canopies that introduced a datum line and created a more intimate space in the church and also served housed the lighting to illuminate the display screens. The screens are hung from the poles and are stored in the screen box when not in use. There are 25 stools stored in the stool box in each component also.
As it was the intention of the School of Architecture to use the church as a place where lectures and large meetings could be held, the seating became a significant part of the design. It was decided that the proposal should provide seating for 100 people. We felt that the seating should be stored in a well designed manner within the component and not stacked as is the norm for storing a large quantity of seats. The design also needed to be simple and easily manufactured. It was felt that the storage box should also serve as seating so we worked with the dimensions
The stool had to be 3 legged as it dealt with the uneven floor surface of the church. It consisted of 3 panels of similar dimensions, 2 interlocking legs and a seat. All of this had to be self assembled when in use and could be easily disassembled and stored in stool box.
While the component deals with the functional requirements of the brief and the spatial requirements of the church we felt that lighting played an important role in how the space is perceived and create an atmosphere in the church.

It also played a functional role in improving the quality of the light in the church as well as enabling the displays to be well lit. The church had many large windows with broken panes of glass, so a window proposal was designed to fix a louvred...
light shelf made from poly-carbonate sheeting to improve the U-value of the church and also reduce any glare that might interfere with the displays. This had to be dropped however, due to time constraints.

There were 3 types of lighting in the proposal:
- display lighting for the screens.
- overhead lighting to improve the poorly lit space
- side lighting to further emphasise the 3m datum line of the proposal.

The unit of lighting was the common fluorescent tube as it was inexpensive and easily sourced and the lighting was designed to absorb waste.
The reality of building this design project meant that a lot of unattractive, non-design work had to be done first. Before anything could be installed, sleeves had to be rolled up and the church cleared of all its rubbish.

Prof. Merritt Bucholz (Head of SAUL) clearly relishing demolition.
It became evident very early on, that although the church had been renovated in the eighties, it had suffered neglect over the past few years. Nails and screws had been fixed without care into the original woodwork and the floor was covered in masking tape. This reinforced for the group the idea that this new project should respect the fabric of the church.

Wall under Mezzanine was removed to unify the Space
Our first priority was to supply our workshop with the relevant equipment necessary for the production process. 3 quotes from local hardware stores were necessary before any equipment could be bought. This was to be a recurring feature for most our purchases throughout the project. Before any designs could be finalised, we had to begin sourcing materials. A number of accounts were set up around the city in hardware stores and fortunately all stores were extremely patient with us explaining the limitations of each material. Drawings had to be constantly revised depending on what materials were available and when they
Our designs required a material of 3m in length and fortunately, we were able to secure 10 sheets of 3m high quality birch plywood. More of this length would not be available again until January. As a result our designs and cut-sheets had to be changed to use this 3m length to its best advantage. Due to the size of our workshop, deliveries of this plywood had to be staggered. Our next step was to specify all other materials such as the steel, light fittings, wheels and screen material. Finally all nuts, bolts and screws could specified.

The “nuts and bolts” of Saul Fabrication
Cutting began on the table saw from the moment the plywood was delivered. The 3m length plywood was delivered directly to the University Woodshop where it could be cut down into more manageable pieces before transportation to our workshop.

The tedious process of ‘screwing and gluing’ could then begin. Some of our design required up to 6 layers of the plywood to be glued together, the final layer of which had to be countersunk. Production of the stools and the component were able to run simultaneously.
Everyday was filled with lots of saw-dust.

Some of the 300 panels needed for making the stools.
The overall component structure, including base, poles, canopies and boxes were assembled within the main studio space as this could accommodate the 3m high poles. Also, this required fast and easy access to all equipment in the workshop. The frame had to be constantly measured or squared up.

Once these measurements were accurate, the pieces were screwed and bolted together, only to be taken apart again a few days later for transportation to the church. Each canopy, base and pole needed to be labeled to ensure it could be easily and accurately reassembled within the church.
Unfortunately, we picked the wettest day of the year to begin the painful task of manually lifting the individual pieces to the van for transportation. After tedious sanding and varnishing, the pieces were assembled again for the final time. This time wheels, canopy material and canopy lighting were all in position before the component were positioned upright. At this point, the stool and screen boxes could be attached. Simultaneous to this process, the manufacture of the hanging screens began and these were completed and attached just in the nick of time.
This was an incredible project to be involved in and an invaluable learning experience. However, it wasn't all plain sailing, things rarely went according to plan, and often we were required to think on our feet to come up with solutions. Because of this we feel it is necessary to document the downs as well as the ups.

As with all group projects, communication, between group members was sometimes an issue and the logistics regarding the distribution and access to all drawings during the design process also created obstacles. The fabrication studio required us to organise ourselves efficiently and overcome these difficulties. The dimensions of the 3m ply was in itself difficult to handle, as it wouldn’t fit in the workshop or on the table saw.

As the sheets began to get cut down, the plywood started taking over the whole workshop and eventually began to invade the main studio space, causing headaches for both faculty and students alike.
Taking deliveries and lifting the assembled pieces was physically demanding and we are eternally grateful to those students of all years who were always eager to assist us.

We staggered the deliveries in order to ensure the workshop was not cluttered but materials always had to be present so that work could continue. As some of us had moved “shop” into the church the equipment had to be divided between the church and the workshop. Inevitably there were times when the exact tool that was required was always in the other location.

As this was the first project of this type within the University, it took some time to build up contacts within various departments that heretofore, had only dealt with faculty and not students directly. We were also required to understand how the University of Limerick worked, particularly when it came to purchasing items, getting quotes etc. And finally, there were lessons that no-one anticipated learning during this project. For example, the mind-numbing and frustrating experience of removing countless nails and screws from the church floor and the eventual disposal of “fluffy”, the dead mouse!
Transformation

Morning of Launch
The Component, Stool, Canopy Light and Storage Boxes
Wall and Ceiling Lights
The Church has proven itself to be a highly adaptable venue. During the plaster workshop all items, particularly the stools, were used in ways that were outside the intention of the original design.

The space itself was robust enough to take the clutter and mess of the workshop while at the same providing inspirational space to design in.
At present, the church is host to many events including college reviews, lectures and Society of Architecture scheduled events. Recently, it was the venue for a plaster workshop held for 4th year students of Architecture. In the future, we hope to continue this type of activity and encourage more events, like art exhibitions and film nights. Eventually, we hope to improve on some aspects of the design which we felt were neglected due to time constraints. These include the incorporation of a table, large enough to accommodate meetings and facilitate a tea and coffee machine.
when necessary. Also, we would have liked to deal with the issue of heat loss through the existing damaged windows. Finally, we had hoped to design a unit to house the electrical wiring which is currently visible along the edge of the church floor.
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