

THE GLASGOW SCHOOL OF ART

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THE GLASGOW SCHOOL OF ART

A measured study by Peter Porteous and Paul Spear

The Glasgow School of Art was the subject of a limited design competition held among Glasgow Architects in 1896 and the winning design, submitted by the firm of Honeyman and Keppie, was the work of Charles Rennie Mackintosh.

The school was built between the years 1897 and 1909 in two phases, and was altered and amended throughout this period. Many of the drawings done by Mackintosh have been lost or destroyed with the result that few records exist of the "as built" layout of the building.

It seemed obvious, therefore, that although parts of the building, e.g. the library, have already been surveyed and drawn, a study should be carried out of the whole building in order that a complete and accurate record be built up for the future use of the Art School.

The first stage of the survey was to find out if any existing archive drawings were available and to check them for accuracy. A set of ten drawings by Honeyman and Keppie and in the possession of the School of Art, were found to be extremely inaccurate, but served our purposes as a basic set of drawings on which to do the necessary survey plottings.

A set of drawings of the Mackintosh library, drawn by Bruno Del Priori a few years ago, were also offered to us for our use.

At the time of starting our survey work, a competition was announced for measured drawings of Victorian buildings built in the period 1830 to 1920, sponsored by The Victorian Society, The Architect's Journal and Wiggins Teape Ltd. We decided that although the School of Art is a major "Modern Movement" building, it would be worthwhile submitting our drawings in the competition. To this end, we limited the extent of our survey to those parts of the building which could be done in the time available; the Ground, First and Second floor plans, and two main sections: one through the Entrance Hall and Museum, and one through the Lecture Theatre and Library.

In the initial stages, the survey was done to a degree of detail which allowed drawings to be done to a scale of $\frac{1}{2}$ " : 1'.0", encompassing the Entrance Hall and the main stairs from Basement to Museum, in plan and section.

After study drawings of these areas had been made and researched for historical accuracy, the survey of the whole building was embarked upon to a lesser degree of detail, which would be in keeping with the scale of the final drawings. These drawings were done to a scale of $\frac{1}{8}$ " : 1'.0" to allow each floor plan to fit the standard sheets of tracing paper supplied for the competition.

THE BUILDING

The School of Art is designed round a very simple concept, based on an 'E'-shaped plan set out on an East-West axis. A single spine corridor runs along this axis, intersected by the Main Entrance Hall and stairwell, and terminated at either end by secondary staircases.

The North side of the plan is taken up, on all three floors above ground, by the main studios, their fenestration orientated in such a way as to achieve maximum north-lighting, much favoured by artists.

The wings of the 'E'-shaped plan house the remaining accommodation of the Art School, including the original Board Room and the Mackintosh Library.

THE GROUND FLOOR

Since the building was planned on a very awkward site, a fall of 30 feet over the width having to be overcome, Mackintosh decided to set the building back from Renfrew Street, and to employ the simple device of raising the Ground Floor in order that the basement studios could achieve north-light via large expanses of patent glazing.

The main entrance is reached by a flight of steps, the walls on either side of which are formed in an ogee curve to lead you into the building.

Once inside, the amount of alteration which has taken place in the Entrance Hall is obvious. The space itself is divided parallel to the line of entry to the building into two vaulted bays, a third barrel vault spans the full width of the space at right angles and parallel to the spine corridor. This last vault has a slightly higher springing point than the others, resulting in a progressive heightening of the volume until the main stairwell, with its height of some forty feet, is reached.

All the walls in the Entrance Hall, save two, had infill panels between the structural brick butts, consisting of six off-white painted timber panels with semi-elliptical facings to the joints and large projecting facings at the springing points of the vaults. These panels have, in every case, been partially destroyed by the needless inclusion of pinboarding, and in one case, torn apart to form a telephone kiosk!

The two remaining bays have also been butchered by progressive administrations. In the original plan, the Entrance Hall was seen as a working space - the Art School shop and office opening off it - but due to the expansion of the administrative element, deemed necessary by the growth of the School, both these functions have ceased to exist.

The original door to the office, matching those on the Entrance itself, has disappeared, its place being taken by a rather shoddy, badly proportioned modern door embellished "à la Mackintosh". The double-opening serving doors to the original shop were destroyed at some time in the past and a crude attempt at re-instatement has been attempted.

The original Janitor's position, to the left of the entrance porch has also been "re-designed". Instead of being open to the entrance hall as laid out, incorporating a Mackintosh-designed desk/counter-top and with the oriel window shedding light into the main space, it is now an office, with a crudely detailed screen and door to match the one previously described.

At some time in the past, the front offices must have been extended into the Entrance Hall space. Evidence of this can be discerned from the patching of the floor covering and the inclusion of large facings at the springing points of the vaults between the main brick columns. Original photographs show that no facings existed in this position and also that in contrast to their current state, the barrel vaults were unpainted above panel height.

This re-design of the Entrance Hall space, designed to be full of people using the Art School shop and offices, has led to it becoming a dead space, used merely as a means of getting in and out of the building.

The main design studios in Phase I have been altered only minimally, involving the inclusion of new vertical ducts to take pipes for the new heating system, and the relocation of services such as sinks. The studios in Phase II, however, have been altered in a much more drastic way.

Originally designed as an Antique Room and the Architecture School, they have recently been altered to accommodate a new administrative office and the main Library. We discovered many differences in detailing between Phase I and Phase II, bearing in mind the problems of cost limits set by the Board of Governors. One of the more obvious being the decision to dispense with the double-banked doors to the studios and replace them with single, larger doors.

There is also evidence which suggests the movement of one major partition wall from its original position. The wall between the present office and the library has been moved to the East by one structural bay, and has been re-built in a very unsympathetic way.

A more obvious alteration is that of the building of mezzanine floors to increase the usable floor space. One writer has even attributed the detailing of these clumsy additions (they are to be found throughout the building) to Mackintosh - Robert MacLeod, in his book Charles Rennie Mackintosh (Country Life). These impositions, though doubtless useful in their own right, serve only to disrupt an otherwise beautifully proportioned space, and should be dismantled.

Since the object of the exercise was to draw the original layout, we disregarded other obvious alterations, i.e. changes to the cloakroom accommodation, the introduction of smoke doors and the re-arrangement of the staff rooms, and based the survey on archive and photographic evidence.

THE FIRST FLOOR

Generally, this floor has had less done in the way of alterations than the Ground Floor. The main design studios in Phase I have the same amendments as before involving new vertical ducts and the re-positioning of sinks. We discovered that all the original ducts (as well as main partitions) have a small coveto moulding at their junction with the floor, whereas any new ducts or partitions either have none or use a modern, bulkier equivalent. In this way it was relatively simple to discover which fittings were original.

The first phase contains only one major alteration involving the small Professor's studio which expresses itself on the East elevation. This room has been drastically altered to include a small kitchen for the use of the Director's secretary who now occupies the room, and has led to the removal and boarding up of a door to the design studio.

The original drawings also show a small open vestibule between the waiting area outside the Director's suite and the adjoining design studio. This has been altered by being partitioned off from the studio and used as a small store room.

We also discovered that the lift had originally terminated on the Museum floor, opening directly into the space. It was difficult, however, to ascertain exactly when the amendment, resulting in the extension of the lift to serve the top floor and the re-positioning of the doors in the spint corridor, took place. Subsequent enquiries, and a closer look at the lift shaft itself, seemed to indicate that during the time that the top floor was being designed and built, the lift was altered and extended to its present form.

As on the Ground Floor, the studios in Phase II have been altered to include mezzanine floors, and have had the original changing cubicles for models removed, and no trace of their position now remains.

As mentioned previously, we used a survey of the Mackintosh library done by Bruno Del Priori some years ago. Despite the high standard of the drawings we discovered many discrepancies in the survey compared to original photographs and the archive drawings to hand.

The Library, as built, contained no librarian's room and had storage shelves on only the North and South walls. The small staircase which leads up to the mezzanine is an obvious addition, since the original layout shows that access to the upper floor was gained by using the West staircase. The shelving in the mezzanine is also a later addition since photographs show that only the central reading desks are original.

In view of the expansion of the School's library facilities to more spacious premises on the Ground Floor, the time may be ripe for reinstating the Mackintosh Library to its original state.

THE SECOND FLOOR

This floor was not part of the original (Phase I) design, but an addition brought about by the requirements of new departments in an expanding school. Mackintosh tackled this problem by simply removing the original pitched roof of Phase I and using the structure to support a flat roofed extension set back from the line of the main facade to allow rooflighting to the studios below.

The main space at the East end of the building has been amended to include yet another mezzanine floor which has involved the extensive re-planning of this area. A corridor has been formed along the South wall, where none existed before, through the original embroidery studio to the top of the East stair, cutting out the additional South lighting which the space originally enjoyed.

At the West end of the plan, the layout has remained virtually unchanged except for the insertion of a small staff room in the composition room.

The only other alterations on this floor involve the inclusion of the new heating system and small changes within the private studios of the heads of department.

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CONCLUSIONS

During our survey of the School of Art, the value of measured drawings became more and more apparent to us. Not only do they involve the discipline needed to sketch and measure objects or structures, but they teach a great deal about the basics of construction not evident to the casual observer.

It would seem to us, therefore, that the Mackintosh School of Architecture has the opportunity to teach students the rudiments of three major technical skills, those of surveying, construction and draughtsmanship, by merely incorporating measured drawings in the school syllabus. Furthermore, study of these measured drawings enables the student to grasp the subtleties of applied geometry which is inherent in the theory of design.

In the years since the Glasgow School of Art was built, considerable photographic and documentary evidence has been built up, the accuracy of which is sometimes difficult to judge. From the outset, therefore, it was our intention that the survey embarked upon by us should be looked on merely as the first step in a continuing study which would ultimately lead to the recording of the entire building for posterity.

DRAWINGS UNDER SEPARATE COVER

REFERENCES

CHARLES RENNIE MACKINTOSH AND
THE MODERN MOVEMENT

Thomas Howarth
(R.K.P.)

CHARLES RENNIE MACKINTOSH

Robert MacLeod
(Country Life)

CHARLES RENNIE MACKINTOSH
AND THE GLASGOW SCHOOL OF ART

D. P. Bliss
(Gilmour & Dean)

CHARLES RENNIE MACKINTOSH - IRONWORK
+ METALWORK AT GLASGOW SCHOOL OF ART

G.S.A.
(D. J. Clark Ltd)

CHARLES RENNIE MACKINTOSH - FURNITURE
AT THE GLASGOW SCHOOL OF ART

G.S.A.
(D. J. Clark Ltd)

ARCHITECTURE OF GLASGOW

Andor Gomme + David Walker
(Lund Humphries)

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APPENDIX A

THE ENTRANCE HALL

GLASGOW SCHOOL OF ART

Based on early drawings of the Art School and record photographs found in the Directors Studio, it was possible to establish a picture of how the Entrance Hall was originally designed and built and hence we discover that today's Entrance Hall is vastly different, the differences obviously relating to the gradual change of use of the building and the progression of modern day technology; i.e. one finds today on first entering the building a telephone booth inset into the timber panelling which, in its day, the Entrance Hall, obviously did not have. All that was originally built was a timber panelled section to dado height similar to the adjoining two panels on the west wall.

The small entrance Vestibule contained within the two sets of double swing entrance doors had a more important function as an Enquiries Area, i.e. the small office directly to the left of the entrance doors as one enters the Entrance Hall was originally an Enquiries Room. It was directly related to the Entrance Vestibule by means of a small hatch, traces of which can be found if one studies the "mock" MacKintosh style panelling now housed in the Vestibule. The original Enquiries Desk still remains in the office today.

The Enquiries Room also opened out into the main Entrance Hall and was only defined by a desk top with presumably shelves under. The full height solid partition of today did not exist.

Unfortunately/

Unfortunately these items could not be documented on the drawings as not enough information could be found on their design and structure.

Another aspect of the Enquiries Room was that it originally had a small hoist positioned in the north west corner of the room. This hoist was directly linked to the Directors Room above and was large enough to take parcels.

From early drawings we can presume that the Enquiries Room was "manned" by the Janitor and went under the heading of "Janitor's Room".

The Janitor's box suspended over the stairwell in the Entrance Hall is original and was used by the Janitors presumably as a key store which it still is today.

The "vaulted" ceiling of the Entrance Hall is obviously original but the "dado" fixed to the underside of the springing points of the arches running down the centre of the hall are not. These were introduced later to conceal fluorescent light fittings. The original artificial lighting to the hall was that of light bulbs housed in metal "light shades" suspended from the ceiling at equal distances apart along the apex of the arches. There was no perimeter lighting, which from photographic evidence made the hall seem somewhat of a gloomy place but one could argue that this effect was employed to form a contrast with the vast amount of natural overhead lighting of the exhibition space and main staircase which is all part of the same space as the Entrance Hall.

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The authenticity of the mosaic inlays of famous artists on the columns to the Entrance Hall is questionable. No record could be found of either their existence or non existence. However, as a portrait of MacKintosh exists amongst them it would be interesting to discover how vain the man really was.

In its day the School was not so compartmented as today, the double swing doors off the Entrance Hall to the main east and west wing corridors did not exist neither did the ones at each end of the corridors opening out to the secondary stairs. These were introduced for fire regulation purposes later on. The drawings covering the west wing corridor illustrate this point and shows how the Entrance Hall in its original form continued as a space throughout the building defining the circulation areas.