# THE GLASGOW SCHOOL! PARE

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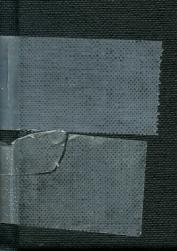
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# THE MARTYRS' PUBLIC SCHOOL CHARLES RENNIE MACKINTOSH

SEROOS GHOLAMI





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THE MARTYRS' PUBLIC SCHOOL
CHARLES RENNIE MACKINTOSH

By Siroos Gholami

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### PREFACE

In writing this essay the primary source of information on Mackintosh's development, in general, has been Professor Thomas Howarth's Charles Rennie Mackintosh and the Modern Movement. Although the author has some reservations about certain aspects of Professor Howarth's views, the value of his comprehensive book in preparation of this essay is hereby acknowledged. The author also wishes to thank Professor Andy MacMilan, Dr. James McCauley and Alexander Page for their assistance and contributions on a subject on which written material has proven to be scarce.

The building, at the time of writing of this essay, is currently under lease to the Arts Forum in Glasgow and has undergone major repairs to stop further deteriration of the structure. The interior, however, is largely unfinished and it was with a feeling of sadness that the author surveyed selected parts of the building. Unless further funds are made available to restor the interior to its original status it would, perhaps, be an act of kindness to demolish the building.

SIROOS GHOLAMI

# INTRODUCTION

An understanding of Mackintosh's design for the School of Art, and subsequent works, requires a study of his development during the period between 1889 and 1896. This period, more commonly referred to as the 'transitional phase' embodies relentless experiments in various fields of decorative arts through to architecture; although this was more clearly manifested in his drawings and poster designs.

Mackintosh, in his contributions to the Scottish, and the European, arena, was frequently faced with both rejection and enthusiasm. In Vienna he is reputed to have been more influencial than any other British contemporary. At home his work was repeatedly described as art nouveau by certain circles and rejected.

In the office, as an apprentice, and understandably, he was obliged to work within the likings of the partners and the office tradition and was allowed very limited freedom in his creative work.

It is within this background that we can appreciate the limited number of built architectural work from this period which bear Mackintosh's characteristic marks; and we can understand his eagerness to exploit fully, any opportunities made available to him. Opportunities that will manifest their value in Mackintosh's evolving creativity and originality.

<sup>1</sup> Sekler, Essay on the History of Architecture (Phaidon, London, 1967), pp. 228-44.

This is the single most important lesson learned by the author when embarking on a measured study of the Martyrs' Public School; the third of a group of three buildings from this phase which, for the first time, without any doubt, exhibit Mackintosh's flourishing style. They are the Glasgow Herald Building (1893-4), Queen Margaret's Medical College (1895), and THE Martyrs' Public School (1895).

The importance of these three buildings is best appreciated in relation to Mackintosh's later projects; although they display a number of details and handiwork which are either shared in the three, or utilised in later projects, either in a similar manner in principal or in a refined form. They are not in themselves original or innovative and were largely produced under the suprvision of the partners.

It is, in this sense, necessary to study these buildings collectively. Regrettably, to do so, it would require a voluminous essay to cover the period between 1889 and 1896 which would be outwith the intentions of the measured study. The text that will follow, however, will, wherever relevant, draw attention to the first two buildings in this group.

<sup>1</sup> The overhang in the roof of the School of Art. 2 A copy of a dissertation on the Glasgow Herald

building (Michael. M. Angus, September 1989) is available in the Mackintosh School of Architecture library.

A correct assessment of Mackintosh's progress leading to his accomplished design for the School of Art must also recognize the influence of John Honeyman, the principal partner of the firm. In this regard, T.Howarth writes 'Of the two men with whom he was in closest contact, there can be little doubt that Mackintosh was most influenced by the scholarly and dignified Honeyman from whom he acquired not only a profound respect for the architecture of his own country, but the courage to carry out structural experiments, and not a little knowledge of aesthetics'. Of Sir John Burnet and James Sellars, Howarth writes 'Though Mackintosh deprecated their classical enterprises, no less than they disapproved of him and his circle, he had a profound regard for their masterly handling of form, and he closely followed their work in the native idiom'.

<sup>1</sup> Howarth, Charls Rennie Mackintosh and the Modern Movement, pp. 55-58.

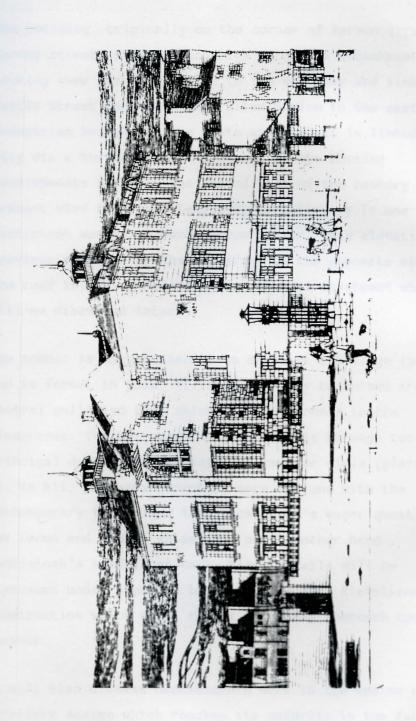


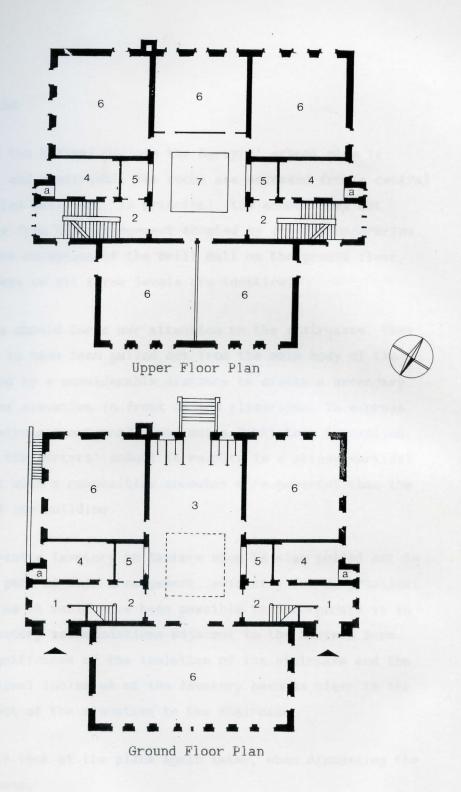
Figure 1. Martyrs' Public School, 1895. Perspective drawing by Mackintosh.

# THE MARTYRS' PUBLIC SCHOOL, 1895

The building, originally on the corner of Parson Street and Barony street, sits perched high up on the embankment looking over the access road to the motorway and linked to Castle Street and the former Blind Asylum to the east by a pedestrian bridge. To the south and west it is linked to the city via a torturous rout dictated by the housing developments built in the second half of the century. The present view from the Glasgow Royal Infirmary is one that Mackintosh would not have accounted for. This elevation, previously masked by the buildings on the opposite side of the road is, nevertheless, given special treatment which will be discussed later.

The school is larger than Queen Margaret's College (plate 1) and is formal in plan. It is principally organised around a central galleried hall which provides access to the classrooms. The entrance to the school is through two principal doors, one for boys and one for girls (plates 2 & 3). In all, the arrangement is more in tune with the contemporary traditions than Mackintosh's eager quest for new forms and ideas. In detail, on the other hand, Mackintosh's hand is at work. These details will be discussed under separate headings of Plans, Elevations and Construction which will, out of necessity encroach upon one another.

We will also discuss Mackintosh's work in the medium of furniture design which reaches its maturity in the furniture he designed for his flat in Glasgow-No. 120 Mains Street, circa 1900-just before his marriage to Margaret MacDonald. A study of these will be useful in understanding certain aspects of Mackintosh's work in the Martyrs' School, in particular the design of the roof structure.



Entrance (1), Stair (2), Drill Hall (3), Masters' Room (4)
WC (4a), Cloaks (5), Classroom (6), Gallery (7)

Figure 2. Martyrs' Public School, 1895
Plans

# THE PLAN

Unlike the Medical College the Martyrs' school plan is formal and symetrical. The rooms are accessed from a central galleried hall, and, in principal, the school does not deviate from the arrangement adopted by its contemporaries. With the exception of the Drill Hall on the ground floor, the plans on all three levels are identical.

Here we should focus our attention on the staircases. They appear to have been pulled out from the main body of the building by a considerable distance to create a secondary plane of elevation in front of the classrooms. To express the staircases externally was not a Mackintosh innovation, but in the Martyrs' school it results in a strong vertical element with a composition somewhat more powerful than the rest of the building.

The en-suite lavatory to Masters Room is also pulled out to become part of this arrangement, evidently for no practical reason as it would have been possible to incorporate it in the lavatory accommodations adjacent to the Masters Room. The significance of the isolation of the staircase and the intentional inclusion of the lavatory becomes clear in the treatment of the elevation to the staircase.

We shall look at the plans again later, when discussing the elevations.

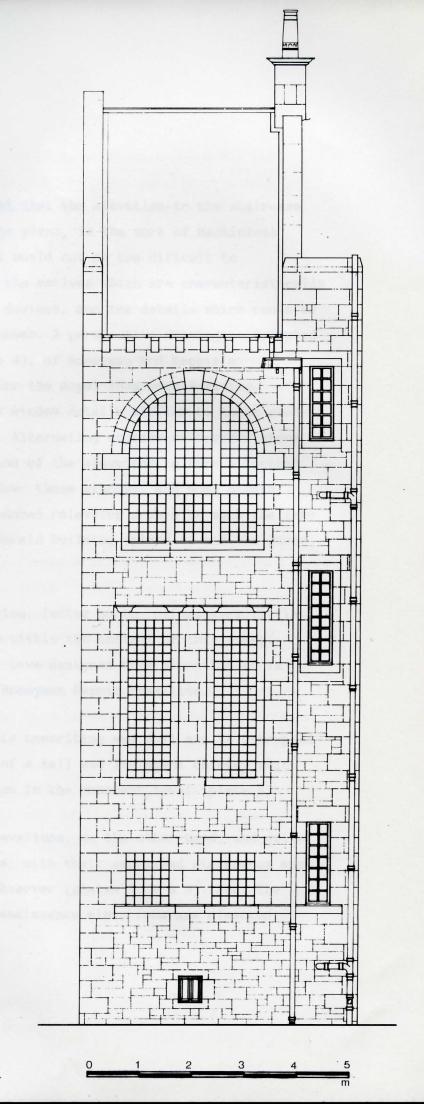


Figure 3. West stair elevation.

### THE ELEVATIONS

There can be no doubt that the elevation to the staircase, as in the case of the plans, is the work of Mackintosh alone. Elsewhere, it would not be too dificult to distinguish between the motives which are characteristically Honeyman and Keppie devices, and the details which could be attributed to Mackintosh. A perspective drawing, attributed to A.McGibbon (plate 4), of Honeyman and Keppie's unpremiated design for the Royal Insurance Building, Glasgow, 1894, shows window details similar to those used in the Martyrs' school. Alternating courses of dressed stone sweep out of the plane of the elevation to form a toothed effect architrave. Over these windows, and some others, Mackintosh has introduced releaving arches in much the same way as the Glasgow Herald Building (plate 5) and the Queen Margaret's College.

The principal elevation, facing north, offers very little worthy of discussion within the context of this essay; although he may well have designed this elevation it is nevertheless in the Honeyman Keppie tradition.

The south elevation is unexciting and dull and is intrupted by the introduction of a tall and inelegant chimney which serves the boiler room in the basement level (plate 6).

The east and west elevations, on the other hand, and quite apart from the others, with their expressed staircases must have perplexed the observer (plates 7, 8 & 9). For, the generally Scottish Renaissance elevations are disected,

almost at their midpoints, by an element which for its inspiration draws not on traditional details, but on a vocabulary hitherto unkown to those unfamiliar with the architect's work.

Two tall and narrow windows on the first half landing, also used in the Medical College staircase, emphasize the vertical nature of the bay. A pair of small, square windows on the entrance level to the stairs recall the treble windows from the museum of the Medical College. These allow a restricted amount of light into the entrance hall leading to the stair which is lit by the tall windows. The effect is calm and pleasant, but is still far from the mature atmosphere of the School of Art entrance; designed only two years later.

The composition is continued with a treble window with relatively slim stone mullions and a semi-cicular arch, it is then terminated by a daring overhanging roof which projects some 1200 mm from the face of the wall. This, as we shall see, is a new motive which will be used later in the design for the School of Art in an almost identical manner. The overhang is formed by an exposed system of roof trusses over the stair.

The projecting roof is locked between a parapet wall, an extension of the north wall of the staircase, and the continuation of the wall of the lavatory in the Masters Room; an exaggerated version of a traditional Scottish detail.

The relationship of the overhanging roof and the arched window below is not relaxed and is a compromised arrangement. The stone transome which is introduced at approximately one-third of the height of the window is an unusual detail. The author has not been able to determine the origins of this detail and it is perhaps an attempt by Mackintosh to relate the arched form of the window to his modern roof. This relationship between the window and the roof line is successfully resolved in the north elevation of the School of Art (figure 4).

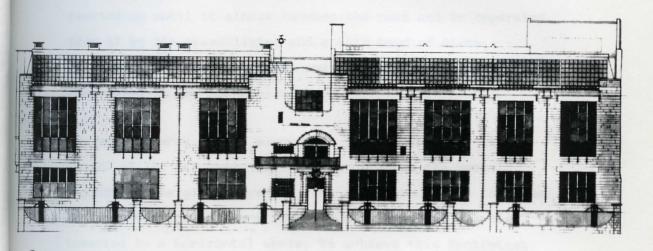


Figure 4. Glasgow School of Art, 1896.
North elevation drawn in 1910.

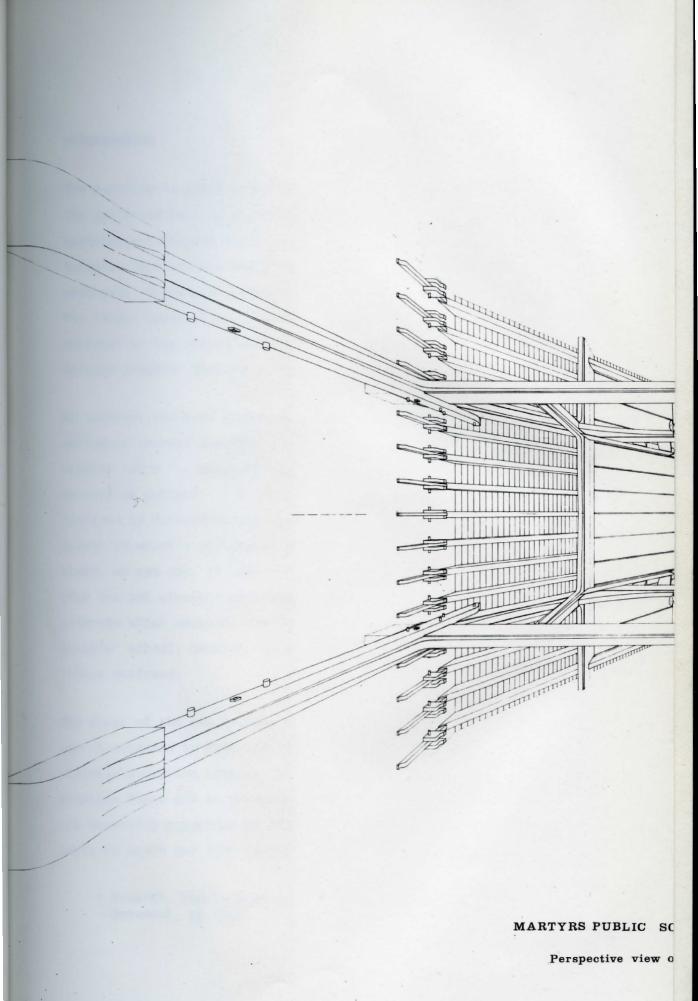
As the lavatories only require small windows, by including these in the overal composition, Mackintosh was able to increase the total area of masonry and thus create a stronger relationship between the solid and the void. In addition the lavatories, which occur on full levels, when placed adjacent to the stair windows at half landings, will

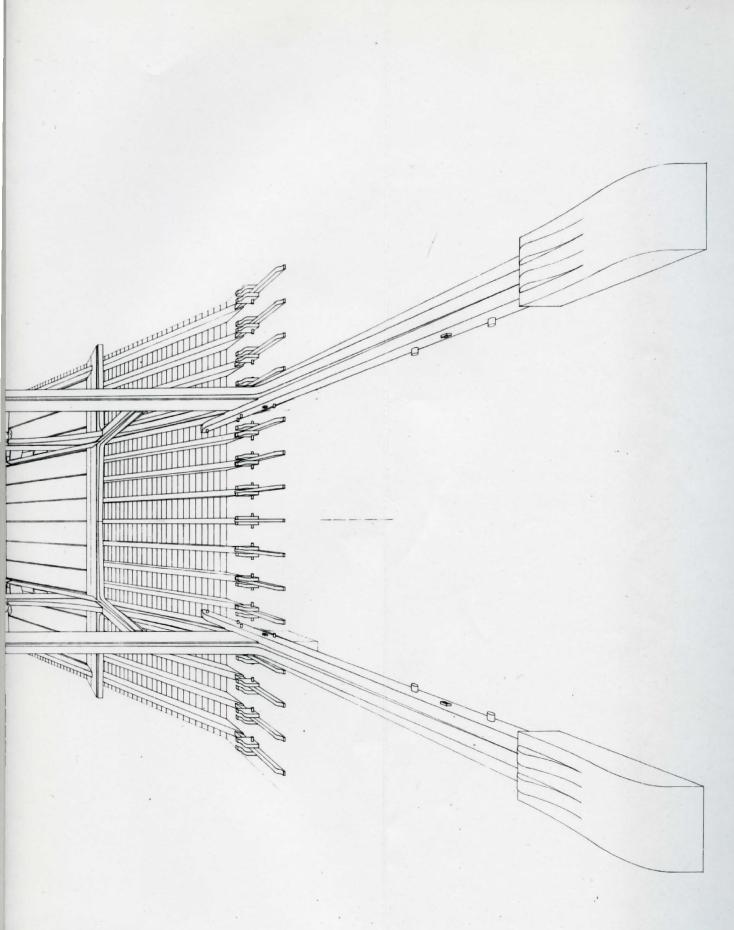
soften the effect. The result is an asymetrical and less formal arrangement. All this for an element of the building which in the classical sense is not worthy of the attention afforded to it. This can only be an intentional measure on Mackintosh's part and is undoubtedly closer to the Modern Movement school of thinking than his Classical training.

This section of the elevation should be compared, in isolation, to the School of Art. The studio bays in the latter are terminated with the same overhanging roof detail, but in this case the rectangular window of the studio is carried up until it almost touches the roof and is separated from it by the steel lintel and a thin band of stone.

Altogether the studio windows and the roof form a restful conclusion to the north elevation.

The surface area of the masonry in the entrance bay of the School of Art has been increased to contrast the vast expanse of the glazed area in that elevation. Here, too, the bay is a vertical element; more pronounced as it has been inserted in a horizontal whole. To achieve this Mackintosh has used accomodations which require smaller windows; the window to the Director's Studio has been recessed to avoid a clash with the students' studios. The walls to either side, have been modelled and carried up considerably as in the case of the Martyrs' school. Note also the private stair from the Director's Room to his studio with its high parapet walls which, perhaps by coincidence, accomodate a lavatory on the first floor.





HOOL, GLASGOW, 1895

f roof over gallery

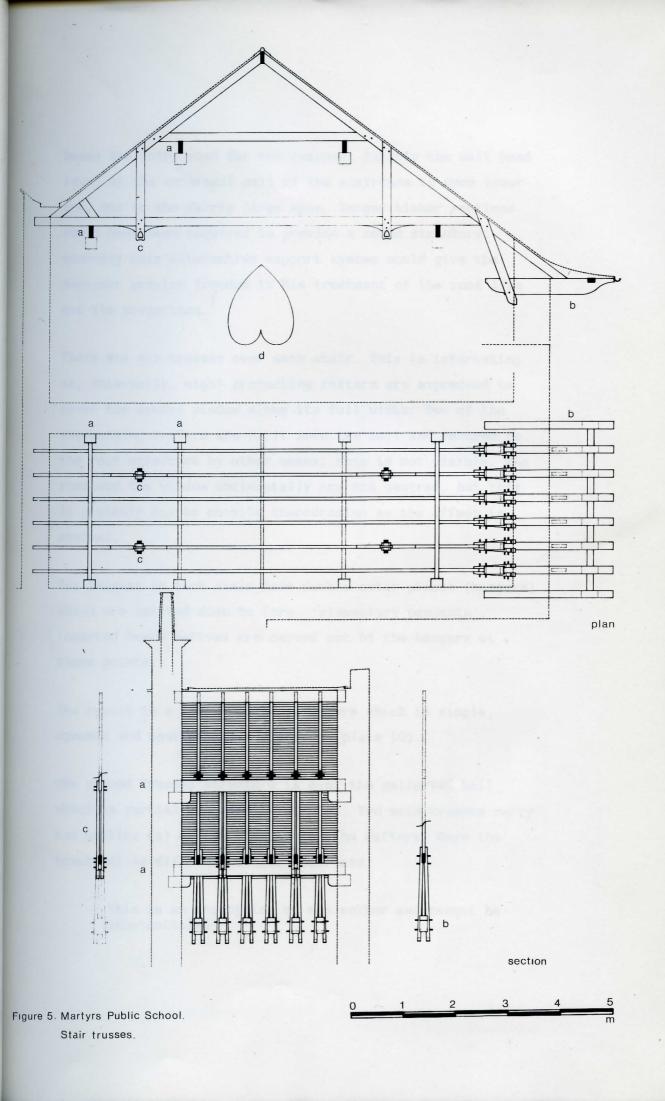
# CONSTRUCTION

The building is constructed of solid masonry and brickwork. The galleried hall is supported on two rolled steel beams spanning north-south which rest on simple decorative corbels. They in turn carry two smaller steel beams spanning east-west. These are crudely bolted together and painted. The larger openings are formed in brick arches and wall surfaces in the stairs and the galleried hall are tiled to various heights. Nothing in this respect is noteworthy.

By contrast the roof structure marks the begining of a series of trusses designed by Mackintosh which Howarth rightly calls '...manipulation of structural members into a decorative pattern...'. Although these, and later, trusses designed by Mackintosh may not represent the most economical manner in which a structural element could perform its tasks, we can see, in particular in the later designs, that they are not elements decorated with mouldings etc. They are elements which decorate the building. In the case of the Martyrs' school, however, as we shall see, the issue is a little confused.

The first of the two trussed roofs is located over the stair and is extended to form the projecting belcast roof over the staicase elevation (figure 5). As can be seen from the drawings these are in principal very simple trusses. They are basically supported by four timber beams which span north to south and also rest on decorative corbels. These

<sup>1</sup> Howarth, Charls Rennie Mackintosh and the Modern Movement, pp. 66.



beams are introduced for two reasons; firstly the wall head level at the externall wall of the staircase is much lower and, due to the fairly large span, larger timber sections would have been required to provide a sound structure; secondly this alternative support system would give the designer greater freedom in his treatment of the roof line and its projection.

There are six trusses over each stair. This is interesting as, externally, eight projecting rafters are expressed to cover the arched window along its full width. Two of the overhanging rafters are built into the wall and secured to the roof structure by other means; this is not visible. The roof and the window incidentally are not centred, but this is probably due to on-site inaccuracies as the offset is minimal.

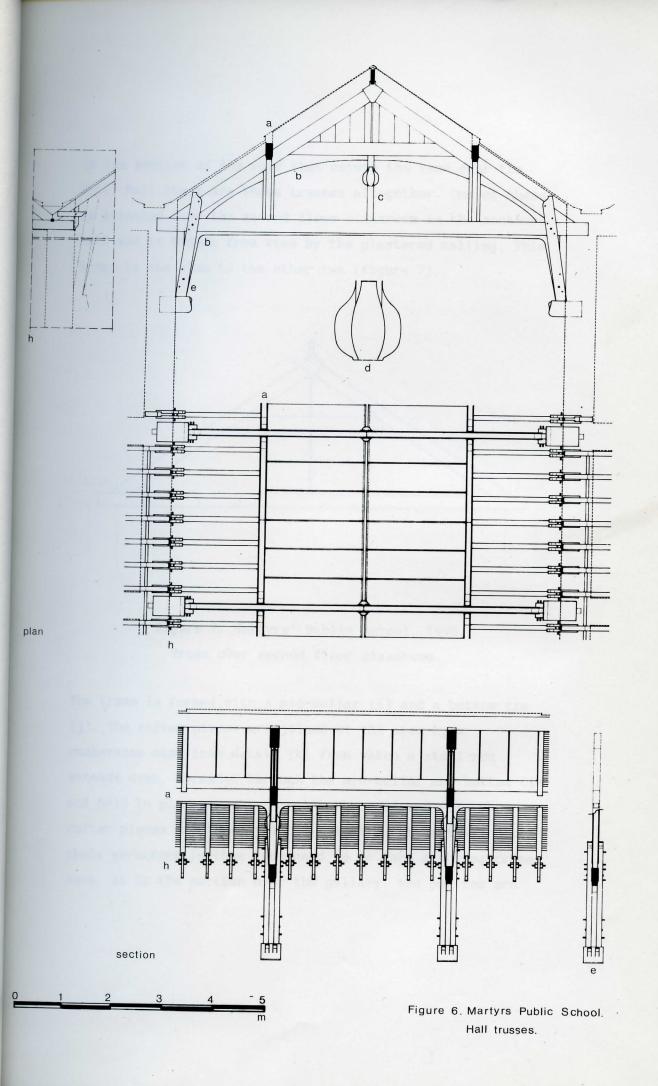
Two trusses in each stair have double oxter pieces (hangers) which are carried down to form 'elementary pendants'.

Inverted heart motives are carved out of the hangers at these points.

The result is a light weight structure which is simple, dynamic and aesthetically pleasing (plate 10).

The second trussed structure is over the galleried hall which is partially glazed (figure 6). Two main trusses carry two purlins (a) at the mid-span of the rafters. Here the treatment is different to the staircase.

<sup>1</sup> This is an assumption by the author and cannot be substantiated.



In the section of the roof that covers the zone over the Drill Hall there are three trusses altogether. One of these is situated over the second floor classroom in the southern half and is hidden from view by the plastered ceiling. This truss is the clue to the other two (figure 7).

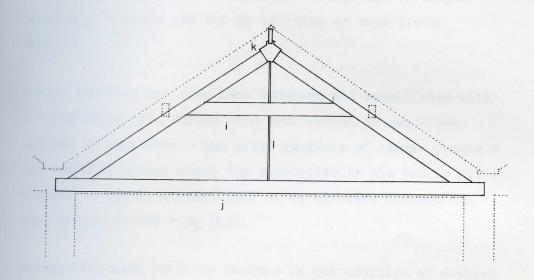


Figure 7. Martyrs' Public School, 1895.
Truss over second floor classroom.

The truss is formed with a mid-collar (i) and a bottom tie (j). The rafter pieces are joined at the apex by a cumbersome cast iron detail (k) from which a steel rod extends down, threaded through the mid-collar and bottom tie and held in place by a nut at its threaded end (l). The rafter pieces are tenon jointed into the bottom tie and the whole structure is then tensioned up to form a strong frame. Here, as in the section over the gallery, the purlins are

supported by the truss. This principal applies to all three trusses.

Over the hall the silhouette of the trusses is significantly changed (figure 6). This is achieved by insertion of shaped 'webbing pieces' (b). In later works by the Architect the line of the silhouette is achieved through use of shaped structural members and not by addition of superfluous details.

A king post (c) has also been inserted and embellished with a tulip shape (d), formed with four carved pieces - one applied to each face - and broad sections of timber create a hit and miss effect above the mid-collar. As the rod is still visible it can be assumed that it is threaded through the full height of the king post.

Perhaps the most striking feature is the addition of doubled up timber supports (e) that reach up from four stone corbels to carry the trusses; or at least, that is what they appear to do. After a visual inspection of the wall head details, the author is convinced that all three trusses are effectively supported at the wall head level. In view of this detail and in view of the lighter structure of the glazed roof, compared to that carried by the hidden truss, it is unlikely that the corble supports perform a structural function as suggested by Howarth. 1

Wooden pins (f) have been used extensively to join the

<sup>1</sup> Howarth, Charls Rennie Mackintosh and the Modern Movement, pp. 66.

pieces, and two steel bolts (g) with cast nuts (square) appear in each of the bracketed supports in the hall.

In contrast to the stair, the roof structure here, together with the light that penetrates the gallery, creates a calmer and a more restful effect which concludes the central hall (plates 11 & 12). The structure has been decorated to provide a stronger visual impact than the effect that would have been achieved with the plane trusses. In subsequent designs, as in the School of Art, this decorative language and the structure, are integrated into a single device, so that, except for a few minor motives it would be difficult to isolate the nonessential elements.

Finally, a curious timber detail (h), at the base of the secondary rafters, resembles the protrusion of some structural system through the wall; perhaps an alternative to a cornice. They, too, are purely decorative.

# FURNITURE DESIGN

A sideways glance at Mackintosh's development in the medium of furniture (figure 8) during his transitional phase indicates a pattern that can be detected, in particular in the treatment of timber, both structural and decorative, in his architecture.

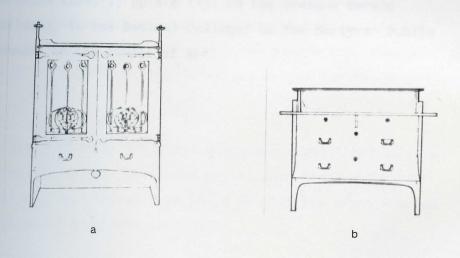


Figure 8. Early furniture by C. R. Mackintosh.

From the traditional cabinet for Gladsmuir house (circa 1898) to the plain, but well proportioned, cabinet in Dennistoun studio (circa 1890); to the linen press (a) (circa 1893); to the chest of drawers (b) (circa 1895)

designed for Messrs. Guthrie & Wells, a well known firm of cabinet makers, and stripped off of all neo-classical details; to the style of the furniture designed for his flat at 120 Mains Street (circa 1900) (plate 13 & 14); all form an unmistakable pointer in a direction away from traditional details and towards a style which is modern, but characteristically Mackintosh.

Similarly, from the Public Hall (1890) (plate 15), designed for the Alexander Thompson Scholarship and the Chapter House (1891) (plate 16), designed for the Soane Medallion Competition, both in classical style, to the gothic Railway Terminus (1892-3) (plate 17); to the Glasgow Herald Building; to the Medical College; to The Martyrs' Public School; to the School of Art.

with a free best to design any of the buildings from this

#### CONCLUSION

In the broader architectural sense, The Martyrs's Public School is not a building of significant importance. It is a plane building embellished, in places, by an architect who is to yet fully exploit his own potentials. It is not so much a story told by Mackintosh, but a story that tells the observer about him.

The Martyrs' Public School and the chest of drawers of1895 represent a turning point - a break point - with traditional design. Although in themselves they are not revolutionary as say, the School of Art and the Mains Street furniture, in terms of Mackintosh's development they are a significant step forward and a new begining; the pieces that complete the jigsaw before he embarks on the design for the School of Art.

The group of three buildings designed between 1893 to 1895 are all too often overlooked as isolated cases which bear details by Mackintosh; and these details are often treated as works by a matured architect.

In the opinion of the author, had Mackintosh been provided with a free hand to design any of the buildings from this period his work would not have been as accomplished as his design for the School of Art; indeed his design for the latter, from the priliminary sketches to the work submitted for the competition, were to be subjected to a vigorous exercise in modifications and changes which were to continue during the construction stages.

Poster design and drawings were the only mediums that had reached their developed forms by this stage. His distinctive drawing style and perspectives, which he learned from McGibbon, were already in presence. His matured architectural style, on the other hand, was yet to evolve; perhaps because he considered himself primarily as an architect, and was very close to those who most influenced him in that field, and as such was forced to evaluate and reevaluate his ideas.

The Glasgow Herald Building, the Medical College and the Martyrs' school, therefor, should not be seen as developments toward maturity, but as a search for new forms and ideas; a goal which, much to the annoyance of his contemporaries, was declared in his paper, read to the Glasgow Institute, following his unsuccessful entry for the Railway Terminus competition:

"...all great and living architecture has been the direct expression of the needs and beliefs of man at the time of its creation, and now if we would have great architecture this should still be so. How absured it is to see modern churches, theatres, banks, museums, exchanges, Municipal Buildings, Art Galleries, etc., etc., made in imitation of greek temples."

"We must cloth modern ideas with modern dress - adorn our designs with living fancy."

To my parents
APRIL 1991

# APENDIX: Plates

- Plate 1 Queen Margaret's Medical College, Glasgow, 1894.

  Perspective drawing by C. R. Mackintosh.
- Plate 2 Martyrs' Public School, Glasgow, 1895.

  East entrance door.
- Plate 3 Martyrs' Public School, Glasgow, 1895.

  Detail of entrance door.
- Plate 4 Royal Insurance Building, Glasgow, C. 1894,
  John Honeyman & Keppie.

  Perspective drawing by Alexander McGibbon.
- Plate 5 The Glasgow Herald Building, C. 1893.

  Perspective drawing by C. R. Mackintosh.
- Plate 6 Martyrs' Public School, Glasgow, 1895. South Elevation.
- Plate 7 Martyrs' Public School, Glasgow, 1895.

  East elevation.
- Plate 8 Martyrs' Public School, Glasgow, 1895.
  East stair elevation.
- Plate 9 Martyrs' Public School, Glasgow, 1895. East stair elevation.

- Plate 10 Martyrs' Public School, Glasgow, 1895.

  View of west stair from gallery.
- Plate 11 Martyrs' Public School, Glasgow, 1895.

  View of trusses over gallery.
- Plate 12 Martyrs' Public School, Glasgow, 1895.
  View of trusses over gallery.
- Plate 13 120 Mains Street, Glasgow.

  Furniture designed by Mackintosh, 1900.
- Plate 14 120 Mains Street, Glasgow.

  Furniture designed by Mackintosh, 1900.
- Plate 15 'A Public Hall', 1890.

  Alexander Thomson Travelling Scholarship.
- Plate 16 'A Chapter House', 1891.

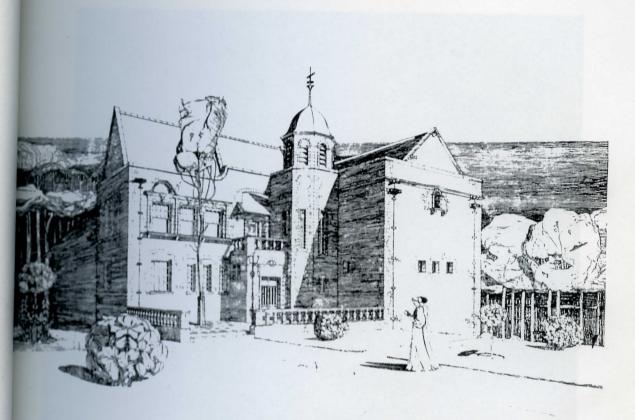
  Designed for the Soane Medallion Competition.
- Plate 17 'A Railway Terminus', 1892.

  Designed for the Soane Medallion Competition.
- Plate 18 Martyrs' Public School, Glasgow, 1895.

  Ventilator. Note the ogee roof.

Plate 1 Queen Margaret's Medical College, Glasgow, 1894.

Perspective drawing by C. R. Mackintosh.



Perspective view from the south-west.

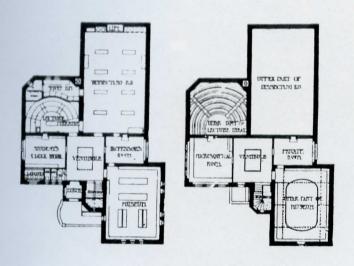


Plate 2 Martyrs' Public School, Glasgow, 1895. East entrance door.

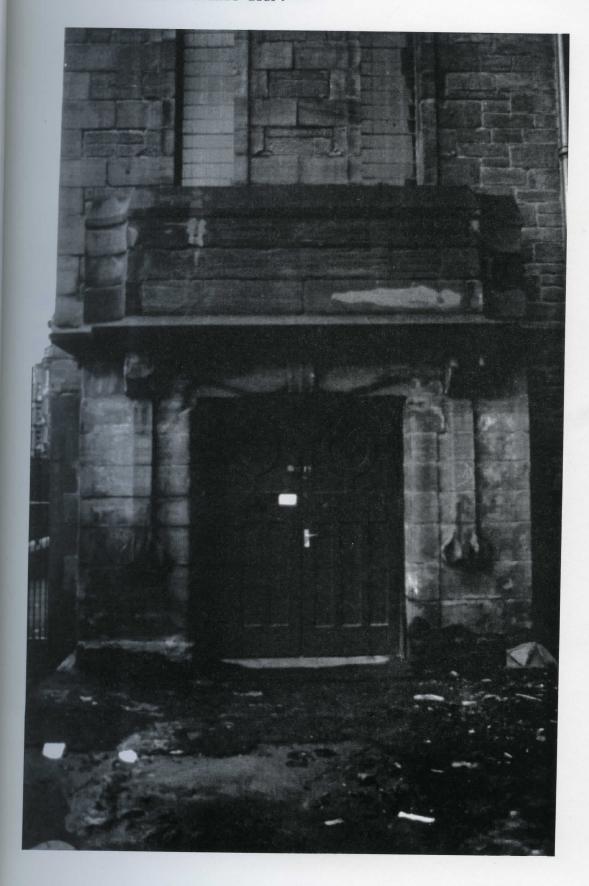


Plate 3 Martyrs' Public School, Glasgow, 1895.

Detail of entrance door.



Plate 4 Royal Insurance Building, Glasgow, C. 1894, John Honeyman & Keppie.

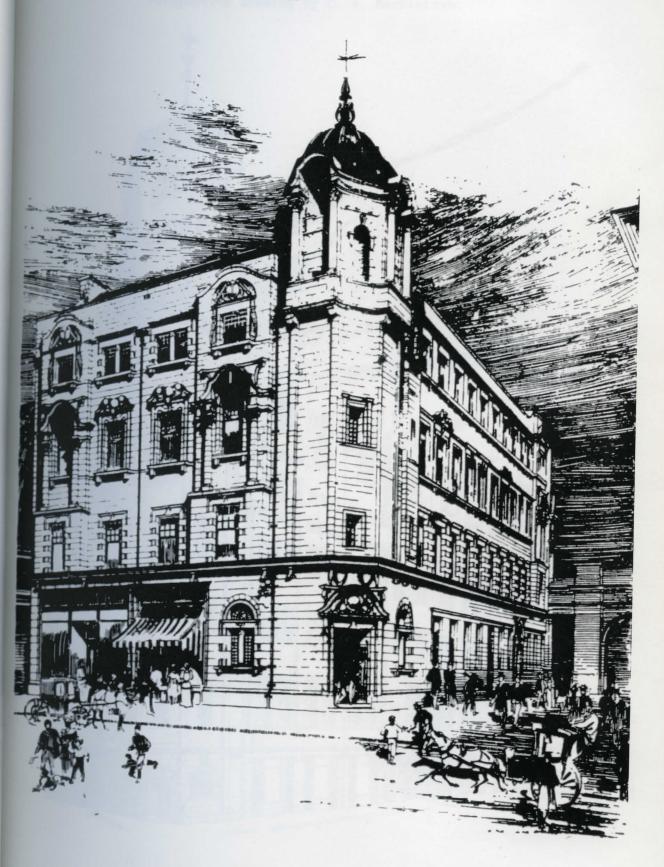


Plate 5 The Glasgow Herald Building, C. 1893.

Perspective drawing by C. R. Mackintosh.

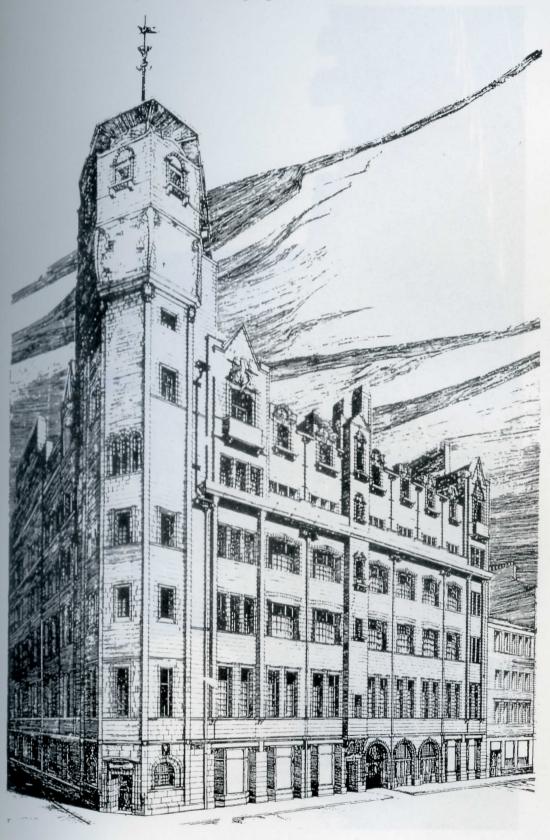




Plate 6 Martyrs' Public School, Glasgow, 1895. South Elevation.



Plate 7 Martyrs' Public School, Glasgow, 1895. East elevation.

Plate 9 Martyrs' Public School, Glasgow, 1895. East stair elevation.



Plate 10 Martyrs' Public School, Glasgow, 1895.

View of west stair from gallery.



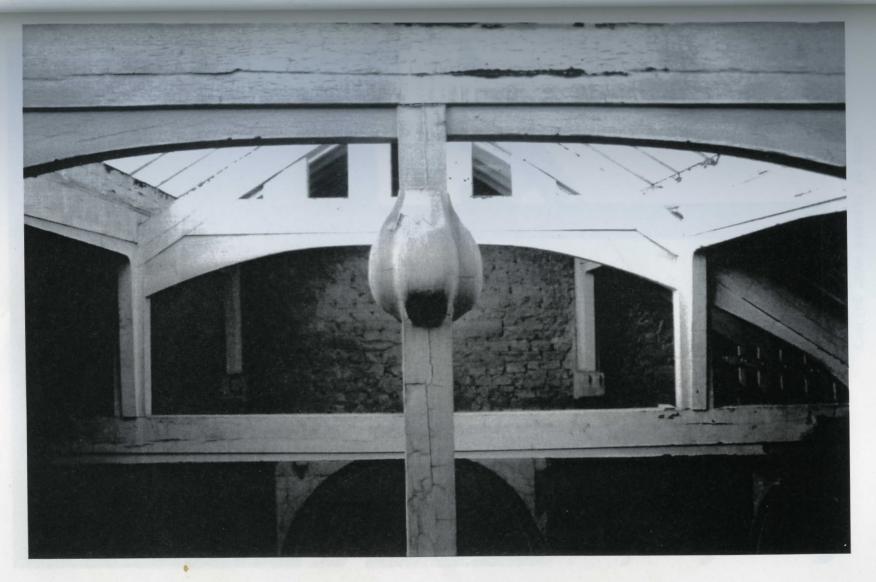


Plate 11 Martyrs' Public School, Glasgow, 1895. View of trusses over gallery.

Plate 12 Martyrs' Public School, Glasgow, 1895.
View of trusses over gallery.

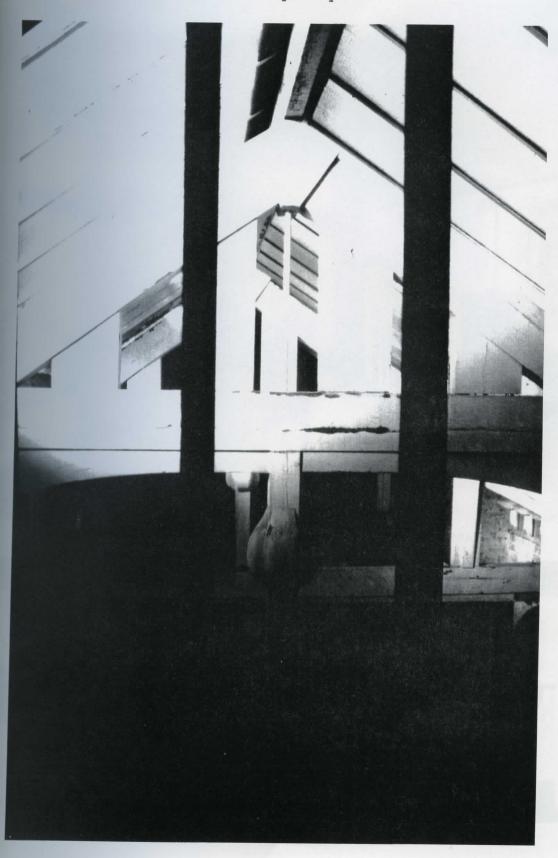
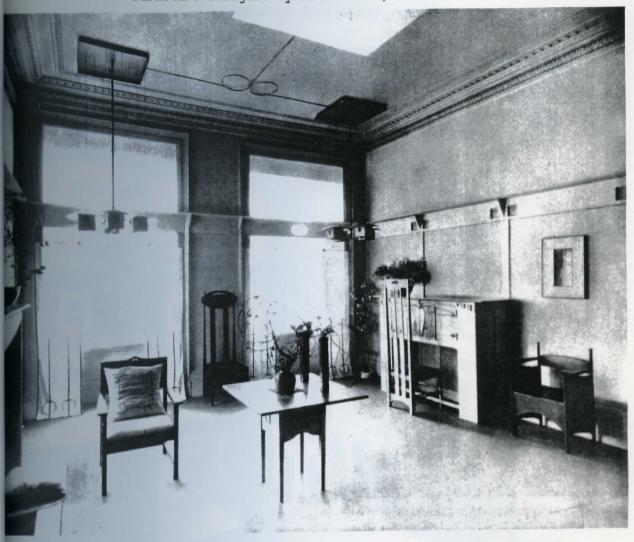
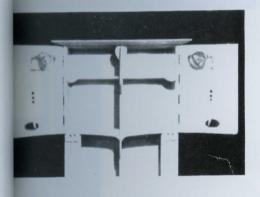


Plate 13 120 Mains Street, Glasgow.

Furniture designed by Mackintosh, 1900.



A. 1900. THE MACKINTOSHES' STUDIO FLAT, 120 MAINS STREET, GLASGOW, THE DRAWING-ROOM





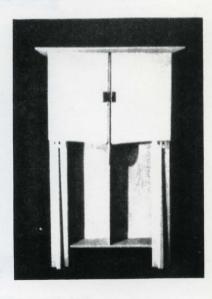
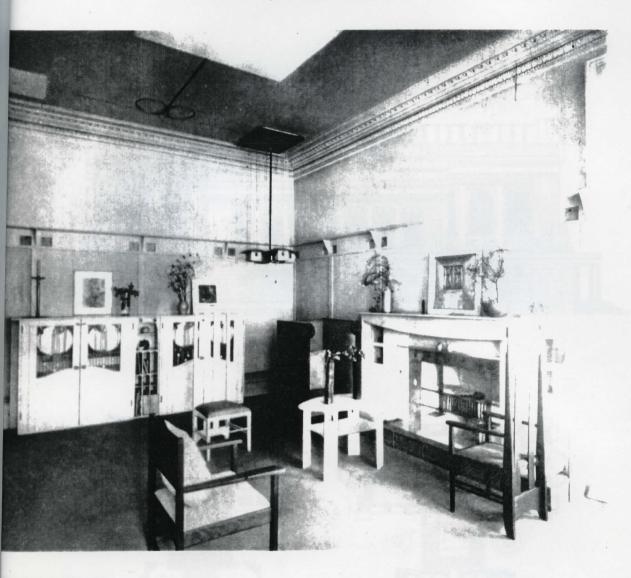


Plate 14 120 Mains Street, Glasgow.

Furniture designed by Mackintosh, 1900.





A. 1900. THE MACKINTOSHES' STUDIO FLAT, 120 MAINS STREET, GLASGOW. THE DRAWING-ROOM

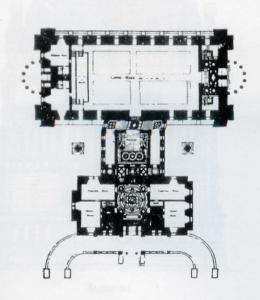
B. 1900. A CHAIR PAINTED WHITE AND UPHOLSTERED IN LINEN

Plate 15 'A Public Hall', 1890.

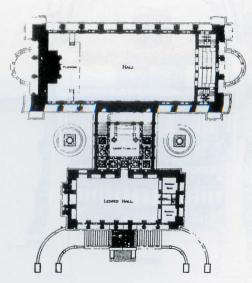
Alexander Thomson Travelling Scholarship.



FRONT ELEVATION.



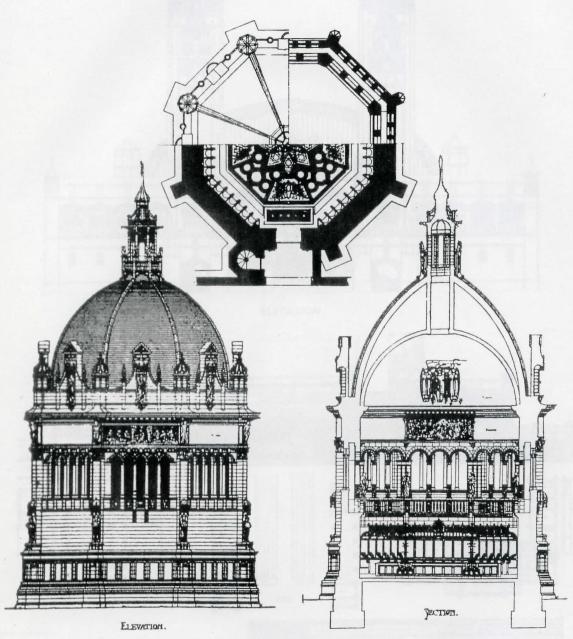
Ground-Floor Plan.



First-Floor Plan.

Plate 16 'A Chapter House' 1891.

Designed for the Soane Medallion Competition.



Plan at Cloister Level.

Plate 17 'A Railway Terminus', 1892.

Designed for the Soane Medallion Competition.



ELEVATION

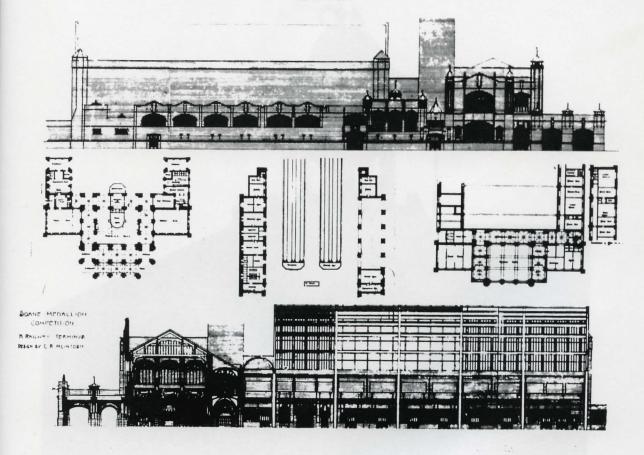
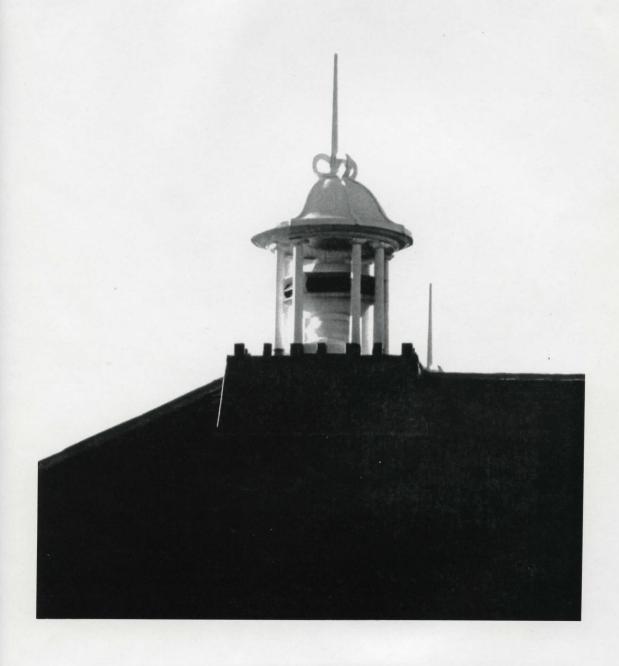


Plate 18 Martyrs' Public School, Glasgow, 1895.

Ventilator. Note the ogee roof.



## GGA