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THE GLASGOW SCHOOL OF ART

A HISTORY IN SECTION

Sorrel Challands
Charles Rennie Mackintosh is one of the “Pioneers of Modern Design” and the Glasgow School of Art is undoubtedly his masterpiece. In this, his first major solo work, Mackintosh brought to life a fresh and vibrant new architectural approach that was to prove a turning point for the establishment.

To understand how the Glasgow School of Art is a pioneering masterpiece one must view it through two different lenses. One lens should focus on the impact this great building had on the life and career of Mackintosh. The other lens should focus on the dramatic role that Mackintosh played in helping to redirect contemporary aesthetic concepts away from the atmosphere of stagnated Historicism, prevalent in the Victorian era, and into a new age of honesty, conviction and contemporary expression.

In the latter half of the 19th century the evolution of architectural design seemed to have reached a kind of stalemate. There was a general sense of frustration at the lack of progress and the ridiculous to-ing and fro-ing as various advocates of different styles battled it out for supremacy.

Driven by a desire to mark this great age with a distinctive architectural style; architects, designers, critics and politicians made bold and often outrageous claims about the moral superiority of their favoured style. Ironically, each had already precluded themselves from leading a new Movement for one common and fundamental reason: they were all concerned with reworking the past in a time when every other aspect of science and engineering, invention and discovery were had their interests strongly trained on the future. Though, perhaps, it should come as no surprise that during this time of unprecedented progress, bringing with it newness and uncertainty, that refuge was taken in familiar surroundings.

Such reasoning did not satisfy William Morris, who felt this frustration keenly. Morris believed that the machine age had brought about the destruction of art – that it is impossible to capture spirit, past or present, without the human touch.

"The enthusiasm of the Gothic revivalists died out when they were confronted by the fact that they form part of a society which will not and cannot have a living style, because it is an economical necessity for its existence that the ordinary everyday work of its population shall be mechanical drudgery".

In Morris’s view “mechanical drudgery cannot be harmonized into art”. Strongly influenced by Ruskin’s theories on the division of labour Morris developed an almost reverential respect for the craftsman. These principles formed the common ground between Morris and Gothic revivalists like Ruskin and Pugin. He shared with them a sense of nostalgia not only for the high standards of craftsmanship, but also of the social and spiritual values of the Middle Ages. They differed, however, in that Morris had an abhorrence for excessive ornament. Instead of looking to highly decorative ecclesiastical architecture for inspiration he recommended the study of vernacular architecture.
Amongst the creative circle that surrounded Morris, and followed his doctrine, was the architect Philip Webb. It was he who most successfully embodied Morris's ideals in an architectural form. This was perhaps due to the close collaboration that must have existed between the two when Webb designed Morris's home, the Red House in Bexleyheath, Kent, 1859. Often considered the epitome of the Free English Style (the Arts and Crafts Style as it was later more commonly known), the Red House shows an unprecedented degree of sensitivity towards site and location. Also evident is a strong concern for structural integrity and a profound respect for local materials and building methods. These principles manifested themselves in a solid, robust architectural style that was romantic, rural, crafts based, anti-Classical and strongly anti-machine. One of the style's most fundamental ideas was the notion that a building should be a complete work of art inside and out. To Morris and his friends and colleagues it was inconceivable that you could achieve any kind of pleasant or harmonious environment by assembling different styles of furniture, ornament, upholstery, drapery and wallpaper together in one space. This kind of visual crowding of Victorian eclecticism was extremely distasteful to these pioneers and they renounced it in favour of an uncluttered, modest style where quality rather than quantity was important, and where every element of a building and its interior was carefully but simply designed by the same mind or by members of a like-minded group.

This shift of focus, as is the case with most architectural movements, was born out of a change in social thinking. Many of its exponents and practitioners, including Morris himself, were socialists. They saw that the ever increasing industrialisation and commercialisation of the city life was having a deep corrupting influence on those who were part of it — morally, mentally and physically. These social reformers did not stop at the immediate built environment, but were also keen to readjust its framework through schemes such as the Garden Cities and suburbs. They even touched on peoples day to day lives with campaigns like those of the Temperance Movement. They thought that bringing people back to a fresher, more natural existence would alleviate them of their pollution and stress induced problems, following Morris hope that it may be possible for us to 'produce to live and not live to produce' — sentiments that we evidently did not adhere to.

Charles Rennie Mackintosh, with his firm belief that art, architecture and the crafts were all part of one creative whole, can be seen to be paying respect to the Arts and Crafts tradition. In fact, among his strongest influences were Voysey and Lethaby, both architecturally and intellectually. Voysey's white rendered houses with their low eaves and buttressed walls are clearly reflected in Mackintosh's domestic architecture, while Lethaby's publication, "Architecture, Mysticism and Myth" had particular resonances for Mackintosh who drew heavily from Celtic symbolism in much of his work. In fact it was this feature that earned him and his group of like-minded friends the name "Spook School". He also expresses a strong lack of comprehension for the Classicism which surrounded him:

"How absurd it is to see modern churches, theatres, banks, museums, exchanges, municipal buildings, art galleries etc, etc, made in imitation of Greek temples. I am quite conscious of the dignity of Greek temples...but to be imported into this country and set up for such varied purposes, they must surely lose all their dignity"
Another great influence of Mackintosh's was Scottish Baronial architecture. In his sketches and notebooks he shows a particular interest in Tower-Houses. By definition this is a very Arts and Crafts concept. However, I believe that this was a very heartfelt interest for Mackintosh, an appreciation that came naturally through his highly developed relationship with his native land and not something learned. This belief is supported by the strong understanding of the intrinsic nature of vernacular buildings that he displays in the Glasgow School of Art. He does not imitate, but instead, observes, re-interprets and uses the principles of the vernacular in a totally new context. This deeper understanding Mackintosh had goes some way to explain the aesthetic differences between his architecture and the architecture of English architects such as Webb, Voysey, Lutyens and others. Though it does, of course, stand to reason that an architectural style born out of an appreciation of the vernacular is bound to vary from region to region. It is also worth noting that the Scottish vernacular, on which Mackintosh draws, is of a particularly commanding character.

The influence most omnipresent throughout Mackintosh's entire career must be that of natural forms. From an early age he began to sketch the flora and fauna that occurred in the landscape around Scotland, a practice which he never ceased, and revisited with renewed zeal later in his life. As his technique matured, he was better able to represent his subject at it was in his eyes, as he felt it, and not the sentimentalist view of nature that the artistic establishment favoured at that time. The very clear stylised lines that Mackintosh uncovered in natural forms quickly found their way into his design works, graphical and architectural. This may be observed not only in the more general character of fluidity this afforded, but also in the inclusion of abstracted and figurative natural elements, tying in with many of his ideas of Celtic Mysticism. A prominent example is that of the 'Tree of Life' employed numerous times and perhaps most appropriately worked through in the library. In a forest setting, the student may aspire to ascend the central 'Tree of Life' through an acquisition of knowledge. The ubiquitous rose and leaf motif is used by Mackintosh as the purest symbol of art and life, respectively, and upheld by the guardians of the school in the entrance roundel. Note too, the menagerie of insects and birds, representing the industrious nature of the students.

The afore mentioned "Spook School", or more respectfully, The Glasgow Four, consisted of Mackintosh, Herbert McNair and the McDonald sisters, Frances and Margaret, all of whom studied at the Glasgow School of Art. The Four exhibited joint work at the 1896 Arts and Crafts Exhibition Society exhibition - a society which Lethaby had established in 1887. While the character of their design nodded intellectually at the Arts and Crafts and stylistically at the Art Nouveau, they singled themselves out by not fully subscribing to either school.

According to the American critic Henry Russell-Hitchcock,

"Art Nouveau was actually the first stage of modern architecture in Europe, if modern architecture be understood as implying primarily the total rejection of historicism."
By this we can understand that Henry Russell-Hitchcock believed that the nostalgic Arts and Crafts was inherently backward looking. That they were attempting to regain something lost rather than create something new and were therefore not modern.

As a style the Art Nouveau was not really consolidated until the early 1890’s with the Brussels based ‘Les Vingt’ painters and the architect Victor Horta. In a reaction against the self important monumentality of Beaux Arts classicism, they created an expressive style that drew its inspiration from nature and exploited the potential for structural lightness in metal and glass. In Horta’s Hôtel Tassel he brings a remarkable fluidity and plasticity to ordinary architectural elements. His flowing decorative lines show that he was aware of wall paper designs by Voysey, but the light airiness that he achieved was a world away from the solid goodness of the English Arts and Crafts. William Curtis describes the Art Nouveau style as

“a synthesis of formal inspiration from the English Arts and Crafts, of structural emphasis of French Rationalism and of shapes and structures abstracted from nature.”

Interestingly, the style developed almost simultaneously in different artistic centres around Europe: Horta in Brussels, Guimard in Paris, Guadi in Barcelona....However the fact that there are these clearly identifiable single characters associated with the style is perhaps symptomatic of one of its failings and the reason that it was not a durable style. Its flamboyancy and expressiveness makes it a very subjective style and almost impossible to imitate. In the end its most enduring influence was in the field of graphic design where it continued to be the adopted style for posters and advertisments for several more years. With hindsight Art Nouveau can be seen as more of a stylistic flirtation than a meaningful relationship for architects and designers.

The style that emerged in Glasgow was a little different from that of the European Art Nouveau. It was similar in as much as its aesthetic lines were based on natural forms with a willingness to experiment with the limits of new and ancient materials, but there was an additional layer of complexity harking on Celtic mysticism, a depth that drew and intrigued many. It also differed in its possession of a certain refinement and self control that was refreshing to those who were slightly sickened by the excesses of the continental style. In Mackintosh’s hands in particular, with his taut, rectilinear forms, he achieved an impressive degree of sculptural discipline in contrast to what was essentially a visually extravagant style.

William Curtis notes this break away:

“Mackintosh’s development encapsulates the path beyond Art Nouveau towards a more sober form of expression in which broad dispositions of simple masses and sequences of dynamic spaces were stressed”

Indeed, when one tracks Mackintosh’s personal stylistic evolution it reads almost as a prophecy for developments in international architecture and design for the following three decades. He started with some grounding in the Gothic Revival when he joined the Glasgow firm of Honeyman and Keppie – this influence may be seen in his Queens Cross Church, which
was undertaken while still working for them. As he matured and began to assimilate his major influences, we see an affinity to the Art Nouveau arise in his work, especially his graphic designs and interiors, and also a leaning towards the Crafts based vernacular, evident in his housing design. Perhaps most surprising were his later and aggressively linear designs for Basset-Lowke and the remodelling of the Willow Tea Rooms in 1917, that were surely one of the main forerunners to the Art Deco style. It seems the concepts of this visionary man were so far ahead of his time, and so difficult for his contemporaries to relate to, that it was destined to end bitterly. In the last years of his life he abandoned his unsatisfying, and all too short, architectural career, choosing to release his artistic impulses through drawings and watercolours.

There are two very distinct journeys to be followed through the section of the Glasgow School of Art. The first is a horizontal one, dictated by the movement of the sun. The second is vertical, tracing the path from ignorance to enlightenment.

We find that to the East, the morning-side of the building, that we have all of the clear headed functional aspects – the board room and some offices. In the West, evening-side, more conducive to intellectual ponderings, the stimulating resources are housed – the library and lecture theatre. In between this framework of practicality and idealism operate the artists’ studios. The studios, of course, do not suffer from lack of end condition as their only concern is gaining North light.

The most direct example of the vertical journey is observed in the near ecclesiastical ideals of the central stair. From the dark, enclosed entrance hall one is propelled toward a broad shaft of light which, once in its beam, draws you in the direction of heaven. The tall balustrades shoot upwards while keeping you carefully contained in anticipation, heightening your experience as you burst into the amply spacious and airy gallery. This impression is accentuated through Mackintosh’s delicate handling of the trusses to the roof light which, while consisting of solid timber members, are dealt with so gracefully and economically that one hardly perceives the weight they bear.

There is a very different experience to be had in ascending either of the wing stairs. Here Mackintosh plays a disorientating architectural game. A heavy central dividing wall creates the feeling of spiralling, and although you are aware of your ascent, the atmosphere changes as though you were descending into the depths of the building. At the top of the stair, where one expects to light, there is what appears to be the basement of a baronial tower, or even a dungeon with grilles imprisoning the stair. This device makes the subsequent space all the more startling. Even on the dullest of days, entering the ‘hen-run’ from either the loggia or the East wing is a truly blinding experience. It seems to be the culmination of the architectural promenade – a passing through purgatory before confronting God.
There is, of course, another journey to be highlighted – that of Mackintosh’s stylistic evolution. Due to the ten year break in the phasing of the building, the Glasgow School of Art turned out to be one of his first and last projects in Scotland. This gap afforded Mackintosh the chance to rework his original designs for the second phase, bringing them up to date with his current style. Ultimately, this has provided us with an extraordinary three-dimensional record of his development as a designer. This is most clearly expressed by a comparison of the first and second phase façades.

To the East and centre, the first phase of building, we can see a clear vernacular and crafts based mind at work. Mackintosh was obviously concerned that the school should be rooted in Scotland, and he uses a visual language that everyone will understand. While drawing on features of the Scottish Baronial style he carefully avoids succumbing to the temptation of rehashing existing examples. The vernacular inspired elements he creates are quite fresh and new, references that are distilled to their essence. Examples of this are demonstrated through his use of the turret and oriel window. Mackintosh combines these two elements on the East façade. The oriel window, supported by a single bold cubic corbel, acts as a base from which the inset turret climbs, providing a relief in a vast and bare portion of the wall.

There is an influence of different origins evident in the initial phase of the North façade, alongside that of the Scottish. This is derived from the vernacular architecture of southern England which was observed and extensively sketched by Mackintosh on his tour in the mid 1890s. While quite different in character, he manages to use them in a most complimentary manner. Still fresh in his mind, the bay windows of old English homes are recalled in his central entrance piece. Here he shows an affinity to the other great innovator of the vernacular style, C.F.A.Voysey. Another English influence is evident in the enormous and relentless studio windows, surely inspired by the Elizabethan Montacute House, Somerset, sketched by Mackintosh in 1895. Perhaps here too Mackintosh took his cue from Voysey, who had included similar windows in his studios designed for a London street, 1892.

When confronted with the task of overseeing the second phase ten years later, Mackintosh took the opportunity to rework the West façade, adding a more mature and daring edge to his portfolio. He displays an eagerness to transcend contemporary notions of design, and instead confidently foretells a bold and exciting future, and, indeed, it is difficult to imagine the reaction of a contemporary audience when presented with such an unseen level of abstraction.

The doorway, servicing the lecture theatre and basement, is like a gentle wave inviting you into the depths, while its aggressive hood explodes with pre Art Deco lines. Although Mackintosh presents us with a thorough abstraction, vernacular roots are still detectable, only now the oriel window and the turret have merged to become one and the same. They are accompanied by large convex and concave centurions who guard the wealth of knowledge behind their wall. Despite all of this drama, Mackintosh retains an almost impossible air of austerity - the small panes of glass sobering the dizzying vertical soar of American proportions.
Being a student at the Mackintosh School of Architecture I naturally have a strong interest in the Glasgow School of Art. Mackintosh's seminal work was one of the things that first drew me to Glasgow. However, being denied the opportunity to work in the building itself (which is quite rightly reserved for fine art students) the majority of my visits over the years have been for necessity rather than pleasure. Consequently the areas of the building I am most familiar with are the lecture theatre and the finance and registry offices.

When it came to my attention that there were no complete longitudinal sections through the Glasgow School of Art I seized the opportunity to take this as the subject for my dissertation allowing me to kill two birds with one stone. I could fulfill a personal ambition to become better acquainted with a building I love and admire, and could also provide a interesting new insight into the work while also contributing to its heritage.

It is not clear why there are no longitudinal sections drawn already. Certainly Mackintosh did not include any in either the set of drawings he submitted for the competition, or the set he drew in November of 1910 after the building was completed. He did draw several cross sections demonstrating his interest in the challenge a steeply sloping site and his feeling that the way in which his design accommodated and exploited this needed careful explaining. Mackintosh had every right to be proud of this feature of his design but for whatever reason the longitudinal section was neglected. An unfortunate omission since there is much understanding to be gained here also.

I felt that it was important to address this imbalance and commenced the tricky task deciding where the most useful sections would be taken. By forming incremental slices through the building volume, the intention was to document a journey that one could never experience by foot. The Section allows us to witness the organization and juxtaposition of spaces better than any other medium. It aids the mental projection of volume better than a plan does and describes, in elevation form the texture of interior spaces.

My decision to look south was initially an instinctive one, following the afore mentioned concept of a journey. I wanted to reflect the customary path taken by the individual – from entrance on the north, through the wall of studios and into the predominantly south facing circulation spaces. The school’s location on Garnet Hill and its orientation mean that from south facing windows there is the opportunity to gain a view over the city and the hills beyond.

The decision to look south was also informed by my opinion that the south elevation, with its seemingly abstract arrangements, would be an interesting aspect of the building to explore further. The north elevation, despite its subtle interplay of symmetry and asymmetry is by and large a very legible façade. The large plate glass windows let an abundance of constant light into generous studios. The entrance is located centrally and above it the composition clearly indicates accommodation for a privileged figure of leadership and authority – the directors office and studio. There is much joy to be had in this elevation, in its boldness and its detail, but there is little intrigue. The south elevation on the other hand is more of an enigma and one can only really gain a true understanding of its composition by revealing the complexity of the spaces it conceals and the relationships between them.
There is no doubt that Mackintosh treated the south elevation as the back of the building. This is evident in the use of materials – primarily harling over brickwork – and the apparent lack of any formal composition. However it is clear that he was influenced by the dichotomy of this elevation since what he chose to make the back is perhaps the most exposed elevation due to its lofty position in the dramatic topography of Glasgow. At first glance the south elevation seems purely a functional reflection of the demands of the rooms within but in fact the windows are positioned in small symmetrical groups. As with an abstract painting all parts are carefully considered; nothing is left to accident but everything has the semblance of it. The western stair can be used to illustrate the subtle degrees of manipulation Mackintosh employs to achieve the desired effect. At each south facing landing there is a window (visible in section C). Each window is of equal size and one would expect that each would be positioned at a regular height above the landing floor. In fact each window is at a different height. The reason for this is that the landings themselves are at irregular intervals (dictated by the variety of floor to ceiling heights of primary spaces) and in order for this internal irregularity not to be reflected externally Mackintosh adjusts the windows so that they are evenly spaced on the elevation. With this lightness of touch he achieves a façade that is at once economic, functional, balanced and harmonised, but never ugly or utilitarian.

Section A maintains some of the symmetry of the North elevation, with its stacks of studios on either side of the vaulted entrance hall. I was particularly interested to discover how the use of some rooms had changed upon the completion of the second phase. In this section you can see that the original studio space immediately to the East of the entrance was freed up when additional studios were created. It was transformed by a division into two rooms, one of which is the intricately timber clad boardroom, and the other serves as the Mackintosh Shop. The space that sits directly over the two is used exclusively by the shop as storage, which resembles an obstacle course filled with beams, and tyes which suspend the ceiling below.

Of the wide range of studio spaces reflected in this drawing, I found those of the professors most intriguing. They, including the large studio to the East, have the added complexity of being forced to interlock with the adjacent corridor access – climbing up and over as they reach to the South. They greet this unusual studio aspect by puncturing tiny windows through the façade so as to minimize the disruptive effect of dynamic South light.

Section B was chosen as it slices through all of the core circulation - clearly expressing themselves as spaces that have been hollowed out from an otherwise continuous volume. They dominate the horizontal plane with corridors that gallop very nearly from one end of the building to the other. To combat this symmetry and aid orientation, Mackintosh provides each area with an individual character – contrast the arches of the loggia in the West to the light fenestration of the hen-run to the East, and likewise, the intimate window seats of the Western first floor corridor and the lantern roof-lights of its brother in the East.

This section is concerned with the public face, revealing very little of what occurs behind the scenes.
Not until we reach Section C, clipping the tips of the E-shaped plan, are we afforded a greater understanding of the building function at all levels. It shows something of an 'upstairs, downstairs' hierarchy of space according to function. The primary spaces naturally enjoy prominent positions and lavish double heights, while the serving elements of the programme are squeezed in behind the scenes. However, the most important aspect of the building that this section draws attention to, is its three dimensionality. It presents itself as three quite distinct towers, cohesively joined by their shared basement plinth. The central tower cuts through the main stair, illustrating this dramatic vertical soar as you rise out of the belly of the building into the light of the Museum.

By preparing these long overdue drawings my aim was to finally complete the orthographic set. Once this decision was made it seemed sensible to take it to the full and explore these three specific cuts through the building. I chose to have all three sections looking in the same direction so that they form a comprehensive set that may be easily read in relation to each other.
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Modern Architecture, a critical history
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James Macaulay
Nicolaus Pevsner
Kenneth Frampton
William J. R. Curtis
The following images fall into two categories:

i) a selection of the huge number of photographs I took of the building

ii) my survey notes with sketches and measurements.
Ceiling height goes down to 2230 at far end.

- Other end / Door

God knows what happens at the partition.

Old Architecture - NEW Fine Art Admin.

Large doors: 1500 + 1690 = 3190

Section C would cut through the office behind here and would look onto an identical screen. It would also cut through a glass + timber screen on the same grid that separates it from office next door.

Another office.

Cell height: 920
2nd floor corridor / west

Door into library

Deep set - door on library side.

2180 height & inset 2200

Studio above board room

Step down from landing level: 200

2250 - floor to ceiling

2nd floor passage to each stair

2500 ceiling height

150 depth of beams

(beam going across floor only)

At top of stair - roof pitched beams

Gird of Cage

4 panes x 5

GROUNDFLOOR MEZZANINE
Ground Floor corridor / west

Level of paversing: 3400

Dimensions of window + no. of paviors:

Door photograph (city in question, no smoking, etc., fire extinguisher)

Ceiling height is the same into stair lobby - which also has beams.

West stair windows

1. First landing:
   - 1370 off ground
   - 1650 wide
   - 1050 high

2. 2nd landing:
   - 1360 off ground
   - 1650 wide
   - 1100 high

6. 6th landing:
   - 1600 off ground
   - 1100 high
   - 1650 wide

6th landing:
   - Screen door identical to one below
   - Ceiling height: 2680
   - Door to upper level of gallery also inset

7th landing:
   - 1650 off ground
   - 1100
   - 1650

8th landing:
   - Door into furniture gallery
   - Inset 740
   - Height 2240

Last flight

Furniture gallery

South wall has door in window

Where each corner comes up: main on beam

Horizontal paversing on back wall

Floor to ceiling: 2500

Cage grid

Plaster work up to
2900 from 2nd fl. level

Ceiling height
11 brick courses
above that

Beams down from there
Other end of 'hen-run' - beyond gap...

NOT COMPOSITION ROOM!

double height loft space above. See plans.
Further education

beams, plaster and

BOARD ROOM

bleachers department

arched doorway then spiral stair going down.
Ground Floor Corridor Softs

Entrance Lobby - very thin floor thickness - literally just joists and boards

Lower still

Splayed ceiling also supported by beams same spacing?

Marked into 12 spaces by 11 beams.

Hoist - doors when closed - not what you'd see now. Hold open left doors.

Flat dimensions - need to be altered according to angle
Screen door to stairs next to library

Office (was bedroom/attic)
Panelling around main stair from 2550 high
straps at 300mm at 750 centres
small door width - fits b/t two stairs
Door from museum space west

2760 - balcony edge from west
500mm is asthought.

stairs up to gallery 17 steps

distance left hand rail 200mm

2500 - height of ledge above lobby into studios.

door leaf 645
height 2420

SUB-BASEMENT / WEST END / EXTERNAL
East corridor/Basement

Very plain, only two doors - both like door and seminar room doors in East wing.
3 windows above door to studio with squarish truss.

Flat soft

6 brick courses between each and soft.

Basement mezzanine

Down to sub-basement

7 steps per flight (not 8 as above)

Macarosh Shop + Store

Downstairs separating entrance lobby from corridor zone (can of traverse barrel vault)

Goes across at top of pier height.

Panelling in entrance hall
Door from museum space west

Western Staircase

2700 - balcony edge from wall
(slates is cut through)

stairs up to gallery 17 steps
distance left hand rail 20 cm

2905 - height of ledge above lobby into studios

door leaf 645
height 2420

Sub-basement / West End / External
Ground Floor corridor / East

door to staff toilets (also ice, door to broom/office)

paneling continues at same height - mosaic mixed into wall left of stair

Weening office with window at end
paneling height: somewhere but corridor paneling + spot down lights hard up.

Ceiling height: same as bottom of beams in corridor.

overhang/canopy above door - project 250

Main stair - wooden downstand beam at top of postsquite large with a
no starting or stairs because paneling fits at cut

been to central
West stair window at landing:
- 1300 at flow
- 1600 wide
- 1170 high
- 170 b/t top of window and soffit.

Fire door
brick piers built out

Next along (eastwards) from Hosts Seminar room

Ground floor corridor window (west)
2120 off ground
Door to studio 8 - single leaf

Dark room doors - same as host + seminar room
Grill: 700 to the right of dark room doors.
Wax grill: 700 to the right of seminar doors.

Estate Office

Cupboard in basement
Corridor 130 tom

Corridor near shop - ceiling height 4860
Lobby

Doors into flat
Stair goes down thru end wall between cabinets. Windows in cabinets at either end too.
1140 DROP FROM CORRIDOR INTO STUDIO

Seminar Room
ceiling height 2400
depth of beam 250
pandling 405 centes
Studio above
3400 height of panelling

Balustras 50
Paneling 4700 centres