

**THE DOMESTIC ARCHITECTURE
OF WILLIAM STREET-WILSON
1889-1913**

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CHAPTER FOUR

4.1. THE LAYOUT OF THE MAIN HOUSE: GLOSSARY OF ROOMS AND SPACES

Recurring throughout the plan types is a clear division between the ornate, public front and the service back of the house, commonly described as a "Queen Anne front and the Mary Anne back" or as Muthesius writes "...the polite street front versus the common yard; the parlour and drawing room versus the service and the servant's quarters." (Muthesius, S. 1982:239).

Most plan types (Fig 4.1, 4.2 and 4.3) followed a sequential layering of rooms from the most public at the street end, through the varying degrees of private spaces, to the least socially acceptable spaces at the rear. Within this hierarchy of spaces, the principal rooms - the drawing room and the main bedroom were at the front of the house, followed by a series of bedrooms behind the main bedroom, and the dining room behind the drawing room.

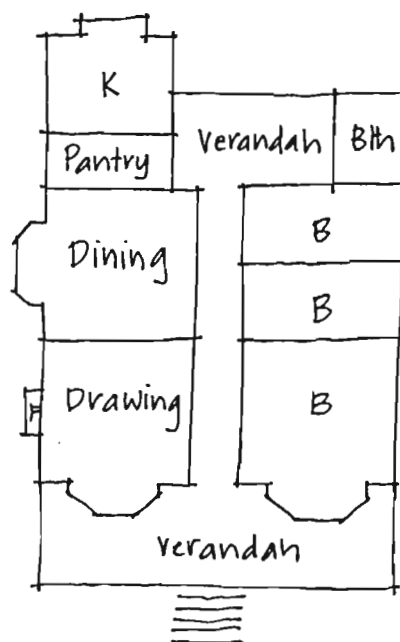
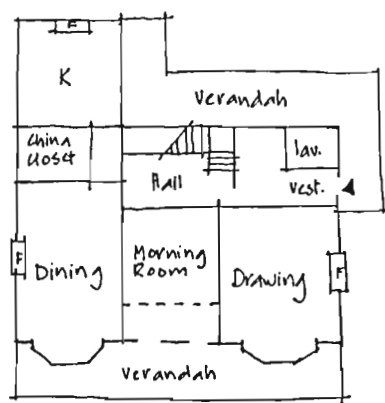
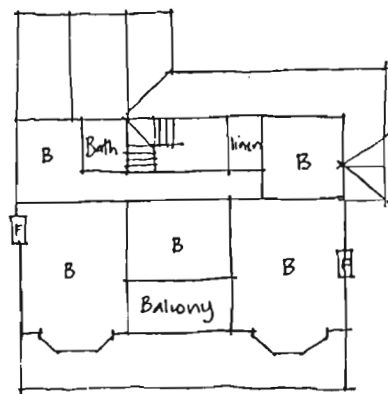


Fig 4.1 *Single Storey Plan*



Ground Floor Plan



First Floor Plan

Fig 4.2 Villa/Double Storey Plan

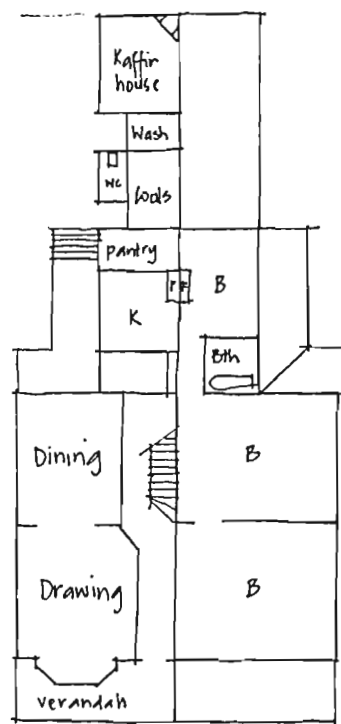


Fig 4.3 Semi-Detached Plan

VERANDAHS

The verandah (See Chapter 6), in different configurations, was a dominant and characteristic feature of the plan. It **either** wrapped around the entire house or around three sides of the **main house**, or ran along the entrance front and the living/dining side of the house or shared the front entrance area with the gable of the main bedroom.

In some examples, the only access to the verandah from the house was via the front door and in others French doors led from either the drawing room or the dining room or from both (Fig 3.23, 1893) onto the verandah. Occasionally, part of the verandah was enclosed to create a room. This room then had direct access to the verandah. The smoking room in the Steinbank house in Seaview, (Fig 3.47, 1898) is one such example.

In advertisements for furniture sales¹ in The Natal Mercury, typical Furniture found on the Front verandah include : "Madeira and Chinese Chairs, choice Plants." The Natal Mercury, Friday February 7, 1890.

The widths of the front verandah range from 6' 9" (2.058m) to 12' (3.66m) with the width of 9' 6" (2.892m) most commonly used. The lengths of the verandah varied according to the dimensions of the house.

The Back Verandah

The back verandah was usually an "umbrage" or recessed verandah, flanked by either the bathroom and sometimes a bedroom on one side, and the kitchen and pantry on the other, or various configurations of service rooms.

It was designed to be either open, **enclosed** or semi-enclosed with trellis screens. It was linked by a **central** corridor to the Front verandah. Climatically, this was an important feature for cross ventilation allowing air to be drawn through the house **from the one** open space to the other. It

1: Advertisements for furniture sales, which were featured in The Natal Mercury, have been referred to provide an insight into typical furnishings found in the different houses.

provided a semi-outdoor, informal, family room which related to the service elements of the house. It was a space with all the opportunities for all the elements of daily living associated with the kitchen such as pets, plants, informal eating and as children's play area. Being a "rough and ready room" it could be directly accessible from the garden in attire normally unwelcome in the more formal rooms of the house. It also allowed the drawing room to be reserved for more formal occasions.

In the last example of the drawing collection, the single storey house (Fig 3.75, 1913), the meals room takes the place of the usual back verandah. A further back verandah is added, flanked by the kitchen and a work room.

Typical furniture, advertised in The Natal Mercury, to be found on the Back Verandah and Outside included : "Meat Safe, Round Table, Dinner Set, Cutlery, Steps, Washing Machine and mangle, large Street Lamp, 9 Bentwood Chairs, 4 Canvas ditto, Madeira Table, Indian Easy Chair with leg rests." Natal Mercury, Thursday 21 January, 1897.

The sizes of back verandahs range from 15' x 17' (4.57 x 5.18m) to 19' x 12' (5.79 x 3.66m).

THE BALCONY

The balcony in some examples is treated as a diminished upstairs verandah. It was roofed, had balustrades and posts but was narrower than the ground floor verandah. It related directly to the main bedrooms on the first floor. (Fig 3.40, 1896) The recessed balcony found in the house for Dr Dumat (Fig 3.19, 1893) related to the stair well. In (Fig 3.34, 1895), a small balcony terminated the upper hall.

THE PORCH

The porch is a term which was only introduced in 1904 (Fig 3.66, 1904) and it was used to described the covered, recessed area to the front door.

THE ENTRANCE HALL, THE HALL, THE PASSAGE AND THE STAIR.

The Single Storey House

The central front doorway, off the front verandah, particularly in the gabled verandah house, provided ease of identification or legibility of the entrance and the hierarchical order of the main and subsidiary spaces.

The position of the passage (or occasionally referred to as the Corridor) on the plan facilitated an axial distribution of circulation down the centre of the house from the front to the back, with rooms having access off both sides. This central-loaded corridor permitted a sense of interchangeability of functions, though a hierarchical order would have prevailed.

There were two ranges of room types to either side of the central passage with the bedroom and bathrooms to one side, and the drawing, dining and kitchen to the other.

The passage often took the form of a series of articulated volumes, at times facilitating a defined entrance hall, with an archway or doors separating it from the narrower passage beyond. The hall was termed the vestibule in examples of a larger villas (Fig 3.51, 1898). In some instances, the central passage was absorbed into the central dining room of the house, thus increasing its width. Two doors lead off the front hall ; the first being the door to the drawing room and the second being the door to the main bedroom.

The Villa

The hall, in examples of villas, as with its English counterparts, "considerable amount of space was sacrificed to it." (Muthesius 1979:90). As with the single storey house, the hall was usually centrally placed and ran from the front to the service back of the house, but occasionally it was accessible from the side verandah. (Fig 3.35, 1895) The entrance halls were so designed to "introduce the visitor at once to the atmosphere of the house." (Muthesius 1979:91). Such large entrance halls are commonly found in the domestic architecture of the Arts and Crafts period especially in the houses designed by Norman Shaw, for example the house "Adcote". Associated with the

hall in the larger villas was some form of ablution, usually with a W.C. located under the stair. (Fig 3.40, 1896) In the house designed for William Wood (Fig 3.45, 1898) an ablution area forms part of the verandah but is accessible from under the main stair.

The hall serves as the horizontal and vertical circulation link between the different floor areas but its scale and prominence in its position within the house reflects its importance as a specific room. The entrance hall creates one large volume, containing the usually grand stair, from which the "subsidiary spaces branch clearly." (Sculley 5:1974).

The term vestibule and ante room are words linked with the hall area. The vestibule is area entered before moving onto the main hall. (Fig 3.51, 1898) The ante room in William Wood's house (Fig 3.45, 1898) is a room leading off the entrance hall, positioned next to the stair.

Typical furniture found in the hall : "Mahogany and Inlaid Oak Hall Stand, with glass back; Linoleum, Lamp. Picture, Bird's Eye view of London, Steel Engraving, Set Horns." The Natal Mercury, Friday, February 7, 1890.

Sizes of the halls varied from 7' (2.13m) to 10' 6" (3.202m) wide, with passage sizes varying from 3' 6" (1.062m) which is most commonly used, to 6' (1.83m) wide.

THE STAIRCASE

Unlike the English examples, the stair was always associated with the hall and in some instances rose through a double storey space (Fig 3.33, 1895). In the villa designed for Captain Reeves (Fig 3.51, 1898) this area is named the staircase hall. The main staircase was used by the occupants of the house and their guests, if there were semi-private rooms upstairs, such as a library. In large villas such as the house designed for David Don (Fig 3.64, 1903) a secondary stair, relating to the kitchen service area, gives access to the bedroom floor and then to the attic and tower floor plan. The top floors may have been the servants' accommodation. The same is found in the house designed

for William Wood in Ridge Road (Fig 3.45, 1898) but there two spiral stairs to reach the tower. The stair widths vary from 3'6" (1.062m) to 4' (1.22m).

THE LIVING ROOMS

THE DRAWING ROOM

The term drawing room "was derived from the "withdrawing room" of the seventeenth century", a room to which the ladies withdrew after dinner while the men stayed on in the dining room or used the library or Study and later joined the women in the drawing room. (Muthesius 1982:46). The drawing room, named the "Parlor" in American examples, was "well established as the 'best room', used for tea ceremonies, clergymen's calls, weddings, and funerals. It was usually at the front of the house and contained the family's most valued possessions." (McMurray 1988:136). It was considered a female domain and used for sewing, reading, musical recitals and performances and a place where visitors were received and entertained. In most examples a fireplace graced the room. In a single storey house plan, on entering the house, the access to the drawing room was through the first door off the hall, with access to the main bedroom via the second door in the hall. The drawing room was either a self contained room or in some examples, linked to the dining room by four panelled, folding doors. Its position, always located in the front of the house close to the front door, made its position within the house easily recognisable to a first time visitor.

The term "sitting room" first appears in a cottage designed in 1893 (Fig 3.25, 1893) but it is a secondary room to the drawing room. Later in 1894, the term appears in a cottage and by the turn of the century it is used more commonly. In only one example, that of a villa, are both the sitting and drawing room found (Fig 3.40, 1896). By 1913, the term "living room" appears (Fig 3.76, 1913). The change in terminology suggests a change in social attitudes to the principal room of the house. This infrequently used, formal room evolves into a more relaxed, family orientated room.

The drawing room sizes varied from 14' x 14' (4.27 x 4.27m) (most commonly used) through to 18' x 25' 6" (5.49 x 7.772m) in a large villa.

Typical furniture in the drawing room included : "A first-class piano, by Erard, a chance for any one wanting a really good instrument; handsome Drawing Room Suite, upholstered in **tapestry**, stuffed horsehair, Mahogany frame, Ebonised; Walnut Music Cabinet and Canterbury, Mahogany Ebonised, glass back; **Occasional** Mahogany Ebonised inlaid Satinwood Table; Occasional Chairs, 2 handsome Black Framed **Chippendale** Brackets, Mirrors, bevelled edges; Combination Table, Jardine Flower Stand, several fine Pictures, Wilton Carpet Square, Curtain and Poles, two Lamps, handsome designs; Walnut Card Table, some very handsome vases, large Pier Glass in ebonised and gilt frame, two Girandole Mirrors; Black and Red Marble 16-day French Clock, recherche." The Natal Mercury, Friday, February 7, 1890.

DINING ROOM

The dining room was usually located between the drawing room and kitchen and always in close proximity to **the kitchen**. The dimensions of the dining room were similar to those of **the drawing** room, but it had a very different function. It was reserved for everyday living and was important in the household as a family room where meals were eaten and occasional **visitors** entertained. It often had its own fireplace, a bay window and French **doors** sometimes opened out onto the verandah. In some instances, in the single storey house, the central passage was incorporated into the dining room. Occasionally it was linked to the drawing room with a folding door. In the larger villas the dining room was a separate formal room linked by a servery, pantry and passage to the kitchen.

The dining rooms varied in size from 14' x 14' (4.27 x 4.27m) to 24' x 18' (7.32 x 5.49m).

Typical furniture found in the dining room included : "Dining-room Suite in Leather, consisting of six small Chairs, two Arm Chairs, and Sofa, 8 ft. Oak Telescope Dining Table, 5ft. Oak Sideboard, plate glass ; Eight-day Clock, ebonised case; large Mirror, Writing Table, yellow wood ; Lamps, Fender and Fire Irons ; Oak Cabinet, containing set of magnificent Children's Stone Building Bricks, cost 2 Pounds 2 s." The Natal Mercury, Friday, February 7, 1890.

THE BEDROOMS

In single storey houses, the main bedroom, like the drawing room, always occupied the front room of the house and faced onto the street, regardless of orientation. From the hall, the second door, after the door to the drawing room, gave access to the bedroom. It was the room furthest from the bathroom. In the examples of villas, the main bedroom was also positioned to the front of the house on the first floor. Often it was positioned above the drawing room so that it was able to have a fireplace and share a common chimney stack.

The main bedroom accommodated the married couple and typical furnishing to the room included : "Handsome Birch bedroom Suite, consisting of 7 ft. Wardrobe, fitted with Mahogany Shelves, plate glass centre door. Toilet Table, Marble top Mahogany Washstand, three Chairs and Commode ; Brass-mounted Double Bedstead, Spring Mattress, Grass Mattress, Hair Mattress. In the larger two storeyed homes, a Dressing Room lead off the Main bedroom." The Natal Mercury, January 6, 1903. (Fig 3.26, 1893)

The size of the main room varied from 14' x 14' (4.27 x 4.27m) to 24' x 18' (7.32 x 5.49m).

An example of the furniture of Bedroom No. 2 included : "Brass-mounted Bedstead, Spring Mattress, Mahogany Chest of drawers, Mahogany Toilet Table, Marble top Mahogany Washstand, three Chairs and one Mirror." The Natal Mercury, Friday, February 7, 1890.

Bedrooms varied from 10' x 13' (3.05 x 3.96m) to 16' x 15' (4.88 x 4.57m).

An example of the furniture of Bedroom No. 3 included : "Single Bedstead, Child's Cot, with Mosquito Netting, Chest of drawers in Birch, Mahogany Wardrobe (Colonial made), Mahogany Washstand, and Dressing Table, three Chairs and Oak Toilet Glass." The Natal Mercury, Friday, February 7, 1890.

The size of the Bedroom No. 3 ranged from 11' x 9' (3.35 x 2.74m) to 18' x 11' (5.49 x 3.35m).

In a few house examples there are rooms dedicated to children. A nursery is to be found in (Fig 3.19, 1893) and as a separate building in the single storey house of Sir Percy Binns (Fig 3.55, 1900). A Playroom is identified on (Fig 3.34, 1895) and a Schoolroom, where the children would have received private tuition, in (Fig 3.30, 1894) and a Children's Room in Dr Dumats house (Fig 3.19, 1893). The Nurseries range from : 18" x 14' (5.49 x 4.27m) to 19' x 11' (5.79 x 3.35m).

ADDITIONAL ROOMS

Generally these "additional rooms" are associated with the larger villas belonging to the more affluent clients.

SMOKING ROOM

The smoking room is described by Kerr as "an apartment specially dedicated to the use of Tobacco." (Kerr 1972:129). He maintained that it should be shut off from the main house, be positioned accessible to a Balcony with a good prospect, a fireplace and "complete ventilation is essential on the score of health and cleanliness." (Kerr 1972:130). All examples of smoking rooms have direct access to the verandah. A smoking room, as part of the verandah is found in the single storey example (Fig 3.41, 1898) The largest room of the house for V. E. Hooper (Fig 3.65, 1904) is dedicated to the smoking room and has both a bay window and a fireplace. In the house for Geo List (Fig 3.60, 1902) the smoking room is on the ground floor with the usual front position of the drawing room being displaced by the smoking room.

MORNING ROOM

Morning rooms are associated only with large villas and are located on the ground floor as the principal room. The morning room was a more informal, family orientated room where the family took their breakfast or where the children had their meals; "the room best thought of as relieving the pressure on the drawing room." (Muthesius 1979:88). The orientation of the morning

rooms was important and are found in drawings (Fig 3.10, 1891, Fig 3.34, 1895) in a north easterly position to allow morning sun to penetrate the room. There is only one example of a breakfast room in the house designed for James Dick in 1902 (Fig 3.61, 1902), a room which, like the morning room, could be seen as a room "that forms a useful complement and overflow to the main living-rooms." (Muthesius 1979:88).

Size : 16' x 14' (4.88 x 4.27m) to 26' x 15'9" (7.92 x 4.798m)

BILLIARD ROOM

According to Kerr "The position of the a Billiard-room (looked at as a possibly noisy room) is probably best when it opens either from a large Entrance Hall or from the entrance end of the Principal Corridor or Gallery." (Kerr 1972:120) In David Don's house in Ridge Road (Fig 3.64, 1903) the billiard-room is positioned on the ground floor as a principal front room with a bay window and a small side verandah. It is reached from the main entrance hall via a lobby off which there is an area for hats and cloaks. It has its own W.C.

Size : 18' x 14' (5.49 x 4.25m)

LIBRARY

Libraries are associated exclusively with villas. Whereas the drawing room was considered to be the domain of the women of the house, the library was that of the man. It was the room to where the man of the house retired to read, smoke and rest and contained a large collection of books. (Muthesius 1979:87). (Fig 3.26, 1893) and (Fig 3.35, 1895), are examples where the library is located on the ground floor and in the Don House, (Fig 3.64, 1903) the library is located on the first floor.

Size : 15'3" x 12' (5.33 x 3.66m) to 18' x 14' (5.49 x 4.27m).

STUDY

As with the libraries, studies are only found in villas and are, on average, smaller than libraries. (Fig 3.51, 1898, Fig 3.33, 1895, Fig 3.57, 1901) and (Fig 3.71, 1905) are examples of villas with studies. The vicarage for St Thomas Church, Durban has a study (Fig 3.66, 1904). According to Muthesius on the English house "Studies are, in fact, found only in vicarages, clergymen being the only men who are expected to work at home." (Muthesius 1979:87). The chemist and druggist, T.M. Allin has a room called "Own Room" which was probably a work study. (Fig 3.73, 1911).

Furniture advertised in a furniture sale included "Office Table with Drawers, Cane Lounge, Bentwood Chairs and Washstand." The Natal Mercury, Thursday 21 January, 1897.

There are also examples of specialised rooms such as the consulting and waiting rooms of Dr Dumat (Fig 3.19, 1893).

No examples of conservatories are found amongst the drawing collection.

THE BAY WINDOW

"Bay windows, of various forms and sizes, are one of the most useful and pliant of all contrivances in respect of the ordinary questions of prospect." (Kerr 1972:92).

A bay window (See Chapter 5) often enlarged the principal rooms of the house - either the main bedroom, the drawing room, the dining room or other specialised rooms such as the billiard room, the library, **etc.** In doing so, it allowed more light into the room. "...bay windows, especially when used on the eastern side of dwellings, offset the advantages of dark interiors and became pleasant spaces for working, sewing and reading." (Kearney Building:14). The bay occurs both under the verandah, where on occasions doors opened out from the bay giving access to the verandah, and as a exposed element on the exterior of the house.

THE SERVICE ROOMS (Kerr 1871:6).

Kerr in his book *The Gentleman's House*, describes the services of the house the "Supplementaries". These consisted of the rooms associated with the kitchen : scullery, pantry, occasionally a china closet, a store, a coal room, a larder and a servants' hall or room and those with the bathroom : the bathroom, the Toilet and Linen cupboard. The locality of these services varied from plan to plan but were always found at the rear of the house.

In the single storey house, these service rooms were roofed under a lean-to roof which was a flared extension of the main hipped roof. The lean-to was a secondary roof to the main roof and it could then be surmised that lean-to roof was used to accommodate the service spaces, which were spaces of secondary importance.

THE KITCHEN

Single storey plans show the location of the kitchen and pantry to one side of the back verandah, usually situated behind the dining/drawing rooms.

In the villas, the back extension of the house was where the kitchen service rooms were located. Commonly, the kitchen was separated from the dining room by an access Lobby or Passage off which led a pantry, a Larder and/or a Servery. An example of such an arrangement is the drawing of "Kinnoul" on Ridge Road for William Wood (Fig 3.45, 1898). The kitchen always had direct access to the back verandah.

In every example, is a recess in the kitchen, where the cooking range was positioned. (See Chapter 8 on Services). Where there was no scullery, a sink was placed in the kitchen.

In the kitchen, "Furniture had to be plain, strong and serviceable. Shelves and cupboards were preferable to drawers. The fewer drawers there are in a kitchen the better, as they are apt to lead to untidiness and accumulation of dirt. One good cupboard...should furnish all the storage-room required in the kitchen by the cook." (Evans 1979:27).

Furniture advertised in a furniture sale for the kitchen included: "Vanguard Stove and Fittings, Table, **Cupboard**, Mealie Bin, Filter and Kitchen Utensils." The Natal Mercury, Friday, February 7, 1890.

The kitchen sizes ranged from 12' x 10' (3.66m x 3.05m) to 17' x 14' (5.18 x 4.27m).

SCULLERY

The scullery is found in examples of larger villas. It was a room where foodstuffs were prepared before cooking. Vegetables were cleaned, poultry and meats prepared and fish cleaned. The house designed for J. Chiazzari in 1896 (Fig 3.40, 1896) shows the scullery, with a sink, as a trellised enclosure of the back verandah as does the house designed for Captain Reeves in 1898 (Fig 3.51, 1898).

Scullery sizes ranged from 12' x 14' (3.66 x 4.27m) to 16' 9" x 11' 9" (5.108 x 3.578m).

PANTRY

Associated with every kitchen, was a pantry. The word "pantry" originated from the Latin "panis" meaning bread. Pastry and sometimes milk and butter were stored in the pantry. Pantry sizes varied from 8' x 7' 6" (2.44 x 2.282m) to 12' x 10' (3.66 x 3.05m).

The contents of the kitchen in a furniture sale reads as follows : Crockery and Cutlery : "Electro-plate by Elkington. - Tea Service, Cake Basket, Cruets, Sardine Casket, Entree Dish, Fish Knife and Fork, Fruit Spoons, Salad Bowl, four E.P. Dish Covers, Table Spoons, Dessert Spoons, &c, Sterling Silver Fruit Spoons, Spoon Warmer Cutlery, &c.; several very fine Steel, and Watercolour Scottish Lakes, engravings, Dinner Service, very handsome; Handpainted Dessert Service, Glassware." Natal Mercury, Friday, February 7, 1890.

THE BATHROOM AND THE TOILET.

THE BATHROOM

In the single storey plan, the bathroom flanked the back verandah on the opposite side to the kitchen, and was positioned behind the bedroom Wing.

Kerr advises that "If the house have but one Bath-room, it will be best placed in a retired position amongst the Bedrooms, and not too far from the Principal Staircase." (Kerr:1972:150). These design guidelines were adhered to in examples of villas and semi-detached houses, where the bathroom and linen cupboards were located on the first floor, off a passage, near the principal staircase.

A bath is not always indicated on the drawings in the bathroom (Fig 3.4, 1890, Fig 3.25, 1893) which may have meant that a bath was not a fixture, but brought into the room for the occasion. The first basin appears in the semi-detached houses (Fig 3.13, 1891) and then in 1894 in the villa for Reynolds (Fig 3.31, 1894) and in Durban in 1895 (Fig 3.35, 1895).

The size of bathrooms range from : 10' x 5' (3.05 x 1.52m) to 12' 6" x 10' (3.812 x 3.05m).

THE WATER-CLOSET

"A Water-Closet' also ought to be in connection (with the Bathroom) if possible; or the plan of putting a seat in the Bath-room itself may perhaps generally be adopted." (Kerr 1972:151).

Water-borne sewerage was not available until 1891 when the Town Council provided a main sewerage scheme for Durban. (Henderson:1904:28). (See Chapter 8 on Services). The earliest example of the W.C. incorporated in the bathroom, on the upper floor, is in the Villa designed for Reynolds in Umzinto (Fig 3.31, 1894) and much later, in Durban Suburbs, in the house designed in 1901 (Fig 3.57, 1901). A separate W.C. located on the ground floor is found in the Villa designed for W. Wood in 1898 (Fig 3.45, 1898).

The only example where the W.C. is positioned in the house, is in the last example of the single storey house type (Fig 3.75, 1913). It is positioned next to the bathroom and behind the bedroom wing. Up until then, a night soil bucket system was used where sewage was collected at night and taken away on a cart. (See Chapter 5).

Kerr, when discussing the position of the Water-Closet, states : "It is sometimes difficult to select positions for convenience which shall at the same time be suitable for privacy. The principles of English delicacy are not easily satisfied; no one would wish them, however, to be less fastidious. The Closets must of course be upon the chief Corridors, the Staircase, the Entrance Hall, and other Thoroughfares; but if access is too direct, it is a serious error." (Kerr 1871:153). "The reason for having these conveniences connected with the Entrance is that they apply in a great measure to gentlemen visitors, who can always find their way to the Entrance Hall, if nowhere else." (Kerr 1871:150)

"Every Water-closet should be placed towards an external wall is a rule which ought not be violated if possible. Care must also be taken, also, as regards exterior appearance, that their position is not as too much to provoke identification." (Kerr 1871:154).

Size of W.C. : 6' x 5' (1.83 x 1.52m) to 7' x 3' 3" (2.13 x 1.67m)

Room Heights

Floor to ceiling height on average is 11'6" (3.502m), ranging from 10' (3.05m) to 12' (3.66m) for Villas and on average 11' (3.35m) for single storey dwellings.

Lean-to height ranges from 7'6" (2.282m) to 9'3" (3.5m) and the verandah height on average from 8' (2.44m) to 9' (2.74m).

A great demand for facebricks was created by immigrants from England where facebrick was fashionable and commonly used in domestic architecture of the Arts and Crafts movement. The early bricks produced in both Pietermaritzburg and Durban were criticised for poor quality, expense and undesirable colouring. (Kearney 1973:65). Brickyards were established by the government and municipalities (Henderson 1904:8) and by 1869, uniform, salmon pink coloured bricks were produced which, when built with flush mortar joints, gave the brickwork an even texture.

By 1903 it was said of brick and tile production that "the latest and most suitable machinery has been erected.... and the output has been eminently satisfactory, so that at the present time Natal can more than meet her own demands, thus opening up a lucrative trade with the interior." (Morse & Monaghan 1903:xi).

Facebrick was commonly used throughout the building shown in the drawing collection. It was often used in combination with plaster where decorative plaster banding added texture to the walls. There are examples where the houses had facebrick fronts **and** plastered side and back walls (Fig 3.41, 1896 and Fig 3.67, 1904). "Ashlar" patterned plaster and painted walls were occasionally used (Fig 3.59, 1901) and, following stylistic trends, plaster and painted walls characterized the Union Period (Fig 3.73, 1911). (See Chapter 5 on Style).

The specification (Fig 3.41, 1896) for brickwork states that the bricks were "to be of approved quality and from an approved maker, and brickwork to be executed in a workmanlike manner, grouted every fourth course. The front elevation as far as the front door to be faced with best picked and selected common bricks cleaned down and coloured on completion, and joints to be well raked and pointed with 3 to 1 cement and keyed. All other external walls and interior of kaffir house to have struck and weathered joints for cement washing or lime whiting." The Amended Bye-laws of Durban, 1903 state that a new building was to be "built of good, hard and well-burnt brick (to be thoroughly soaked with water before being used).....properly bonded, truly built and solidly put together...." (N.G.G. 1903:1676).

CHAPTER FIVE

5.1 ANALYSIS OF THE DRAWINGS

5.1 i THE SITE

Relationship to the Site and the Approach.

"A Gentleman's House, however unpretending, ought to be placed in a well-selected locality generally, on well-selected site specifically, and with due regard in detail to aspect, prospect, approach, soil, salubrity, water, air drainage, and other influences and surroundings.." (Kerr 1972:33).

Before the twentieth century, the houses were positioned on extensive sites. For example, the site for Captain Reeves (Fig 3.51, 1898) and for Auerswald (Fig 3.43, 1897) ran from Essenwood Road to Musgrave Road. By 1904, (Fig 3.67, 1904) the plot size was reduced to 120 feet (36.6m) by 50 feet (15.2m).

On the large sites, the houses were set as free standing forms within the natural surrounds without concern for the proximity of neighbours, but concern for the closeness of the surrounding vegetation. The house was placed in a garden setting and usually set back from the main road. As the house was approached from the road and viewed as a free standing form, some architectural element was necessary to indicate the entrance. Either a pitched roof to the verandah over the front door or a gable/verandah combination achieved this. Kerr states that "the line of approach should itself be graceful, and that in its disposition it should be intelligently planned for picturesque effects.." (Kerr 1972:327), and that it should advance to the entrance. (Kerr 1972:317).

Later, in the 1900s, when the plot size was reduced, the house was positioned closer to the road and the front door faced towards it (Fig 3.73, 1911). A recessed porch marked the front entrance and the verandah lead off the more private rooms such as the living and bedrooms which then faced the garden.

With a few exceptions the orientation of the building is not indicated on the drawing. A north point appears on a drawing in 1895 (Fig 3.34, 1895) and than later on a building in 1901 (Fig 3.58, 1901). Seldom was a site plan found on a drawing until after 1900.

Generally, the entrance faced the road and was associated with the front verandah of the house so that it was evident when the house was approached. Natalian architect, Methven, in his article on "Domestic Architecture in Natal" (c. 1903) criticised this association of verandah with the road. "The owner never thinks of any other course other than to present his most elaborate front and his one verandah to the public, that side might be devoted merely to the necessities of public entrance, and the principal rooms and the verandah made to face sideways, if the prospect is there, or to the back, if there be no prospect, but a garden. Why should the garden be invariably given to the public, and a back yard only to the owner?" (Methven c1903:92).

There are two exceptions where there is conflict between the prospect and approach. These exceptions are seen in the design of the two villas in Essenwood Road where the eastern sea views were desirable but the road access was from the west. Contrary to the planning principles of Street-Wilson, these dichotomies have been resolved by positioning the entrance off the side verandah in the house for Mrs Mitchell (Fig 3.35, 1895) and at the service/kitchen area of the house of Reid Cochrane (Fig 3.33, 1895).

On two occasions it was found that the plan had been inverted when the building was built. This decision change may have been made on site, based on the prospect of the house. Examples of such changes include 59 Musgrave Road (Fig 3.46, 1897) and 210 Lambert Road (Fig 3.36, 1896).

In all instances, the house was raised so that a level podium could be achieved regardless of the slope of the terrain. (See Chapter 7 on Floor Construction)

The Surrounds

Fences

The overall cohesion of the house within its streetscape was important and examples of detail drawings of boundary walls and fences feature in the drawing collection. These range from the gate and fence for the small wood-and-iron cottages in Princes Street (Fig 5.2, 1902) to the elaborate designs for the Chiazzari's villa (Fig 5.1, 1896) designed in 1896. The materials used ranged from painted timber to a combination of brickwork with infill panels of cast iron ornamentation. The name of the house was sometimes incorporated into the design of the front gates.

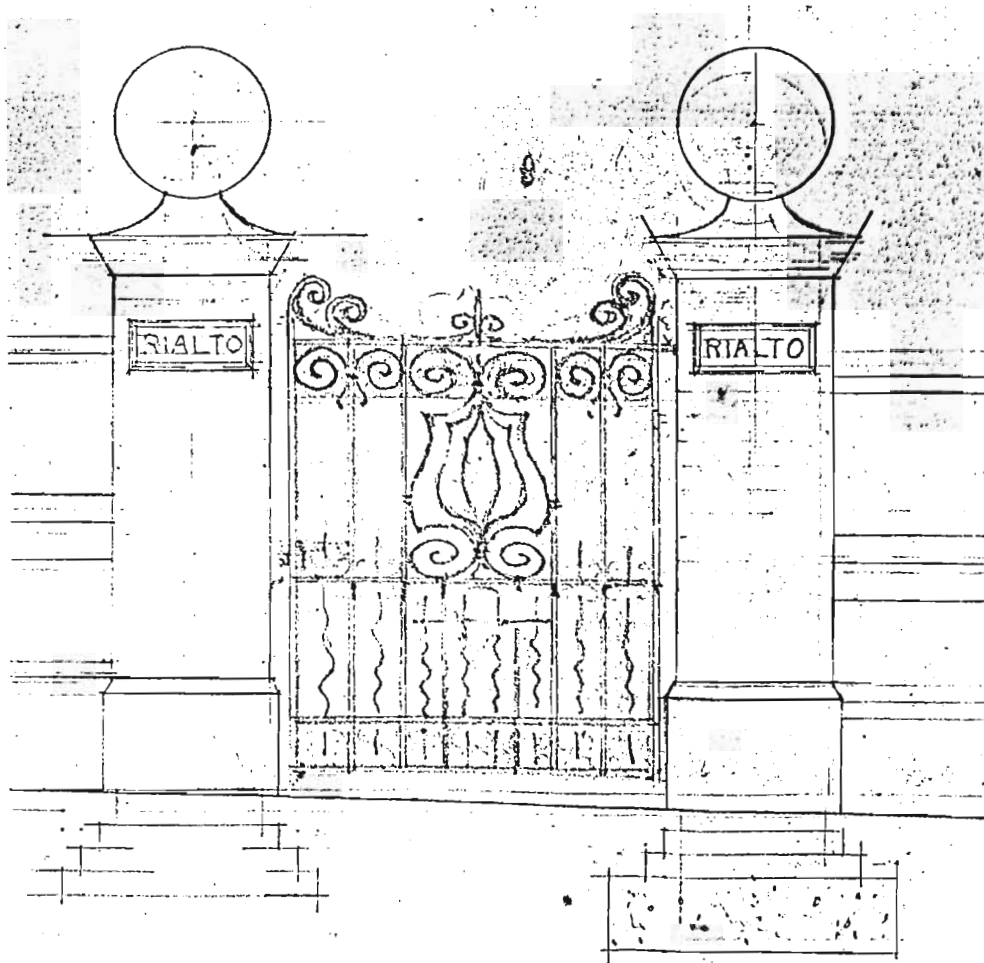


Fig 5.1 Chiazzari's villa (Fig 3.40) designed in 1896.

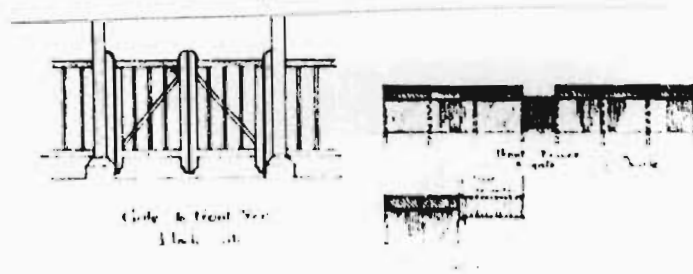


Fig 5.2 Princes Street (Fig 3.62, 1902)

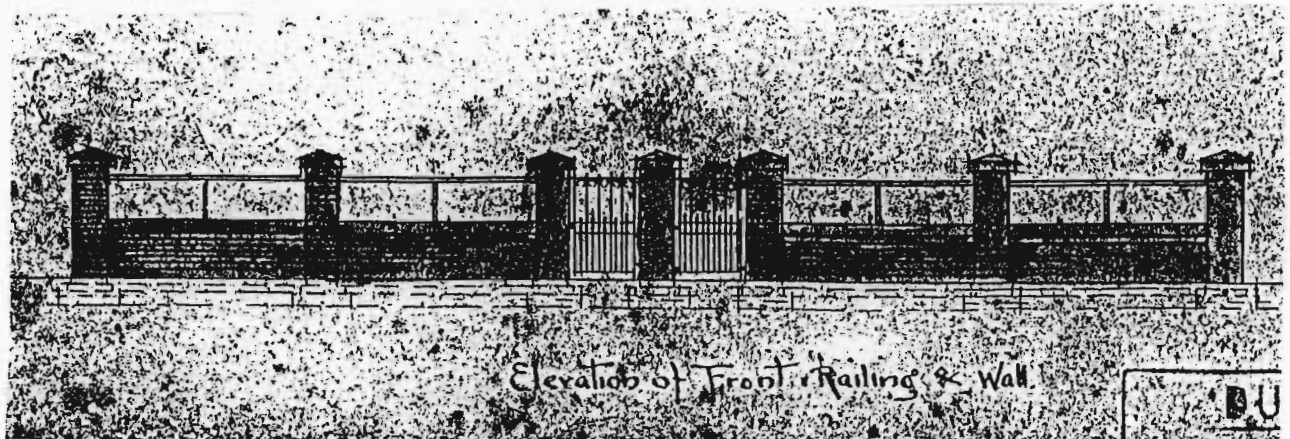


Fig 5.3 Drawing Detail of Front Railing and Wall (Fig 3.46, 1898)

Gardens

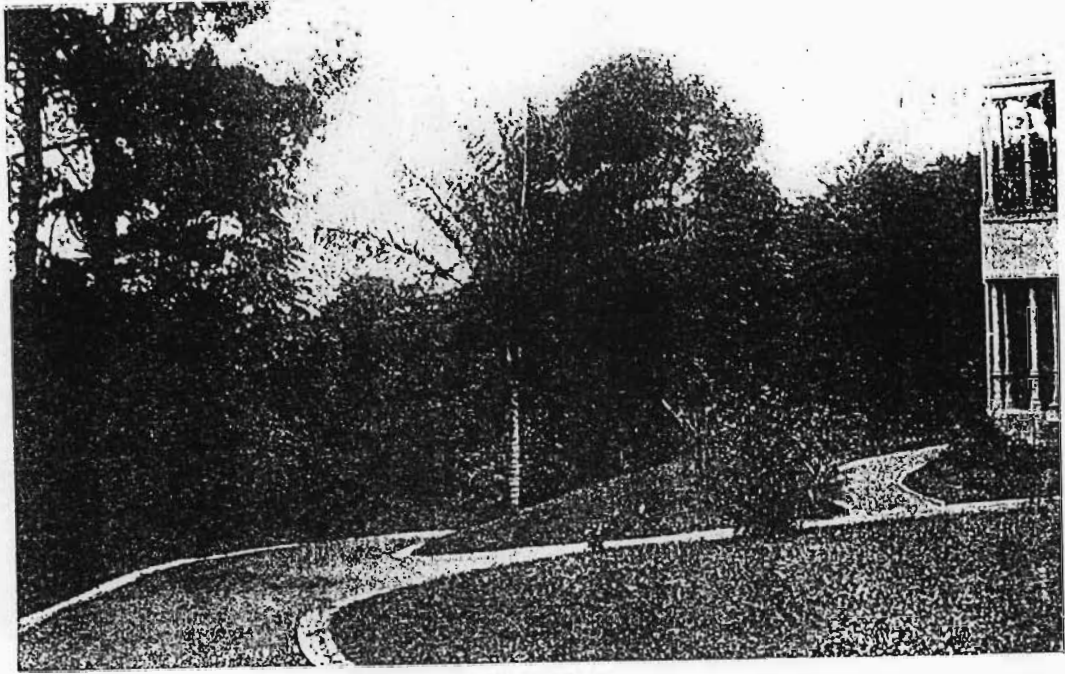
Kearney says of gardens of Natal : "The settlers brought with them the tradition of regency and early Victorian gardening. These gardens consisted largely of brightly hued and multicoloured shrubs set between flower beds of 'hardy annuals', while through them gravel paths led apparently aimlessly. Late in the century the more exotic plants became more popular and many gardens can still be found in Natal with their flowing lawns and tall palms." (Kearney 1973:62). These types of gardens are seen in the photographs featuring "Homes of Natalians" in the Natal Mercury Pictorial of 1907 (Fig 5.4 and Fig 5.5). The pictures show views of gravel paths set in sweeping lawns, entrance roads set in thick tropical vegetation which often included palm trees. The remaining twin palms which mark the entrance to 59 Musgrave Road, the villa designed for Auserwald (Fig 3.43, 1897) in 1897 are also reflective of the tropical type gardens.



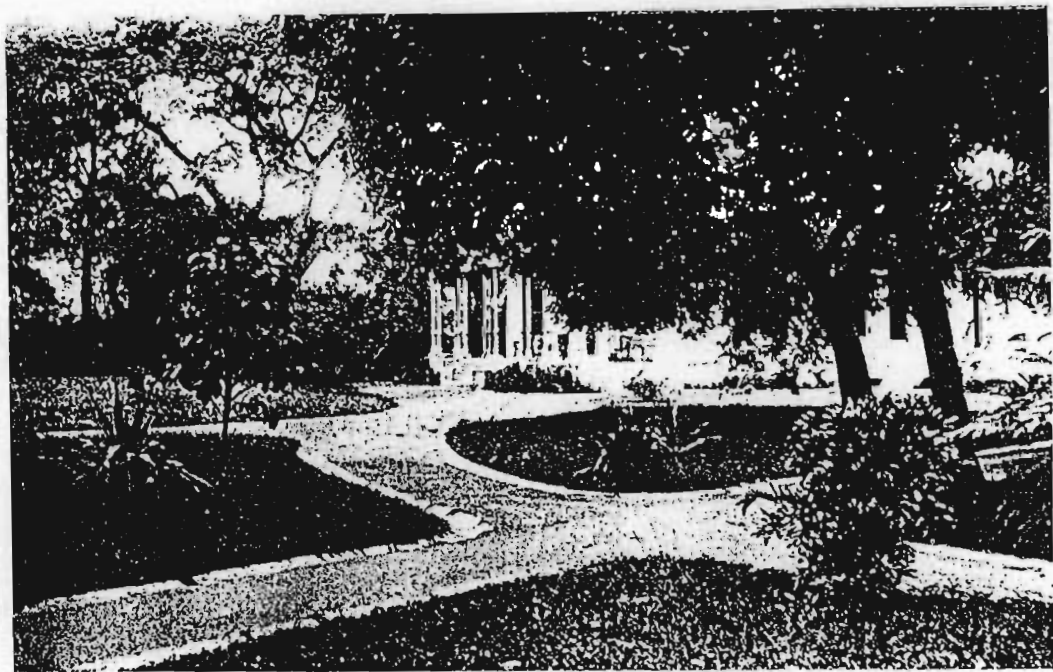
Fig 5.4 "Kinnoul" designed for W. Wood (Fig 3.45, 1898)

The Lawn and The View from Front of House

(Pictorial Mercury, 1907, May 8)



The grounds.



Glimpse of house from the grounds.

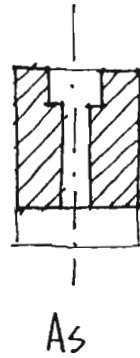
Fig 5.5 *"The Maze" designed for D. Don (Fig 3.64, 1903)*

The Grounds and Glimpse of house from the Grounds.

(Pictorial Mercury, 1907, April 24)

5.1 ii PLAN TYPOLOGY

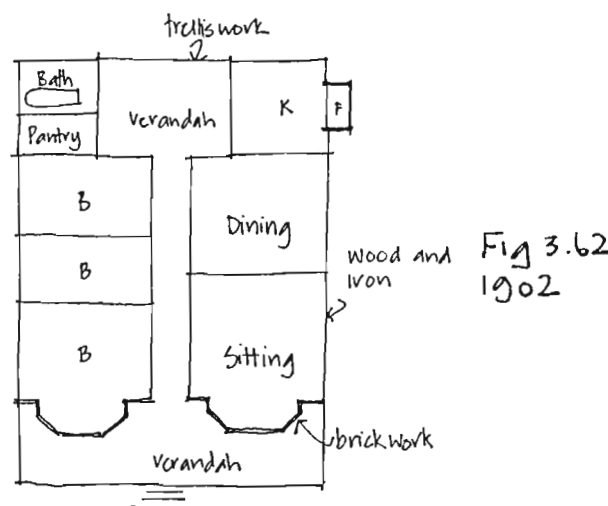
An analysis of plan and form typology has been carried out based on the drawing collection of domestic buildings designed by William Street-Wilson and his partners, dating from 1889 - 1913. The house types include single, double storey and semi-detached.



THE SINGLE STOREY HOUSE

PLAN As

An analysis of the single storey house plans shows that the central corridor plan, with variations in the positioning of the verandah, is most frequently used. The front verandah links the back verandah by means of a central hall and passage, which forms the main axis of the house. There is a layering of spaces from the front public rooms of the house, to the service back of the house. There are two ranges of rooms to either side of the passage. The one range includes the drawing, dining and the kitchen areas while the other includes the bedrooms and the bathroom at the rear of the house.



Examples

Fig 3.2, 1889 Fig 3.18, 1892 Fig 3.29, 1894 Fig 3.50, 1898
Fig 3.4, 1890 Fig 3.33, 1895 Fig 3.62, 1902

As (ii) is a variation of this plan and has an additional side verandah. (Fig 3.44, 1897)

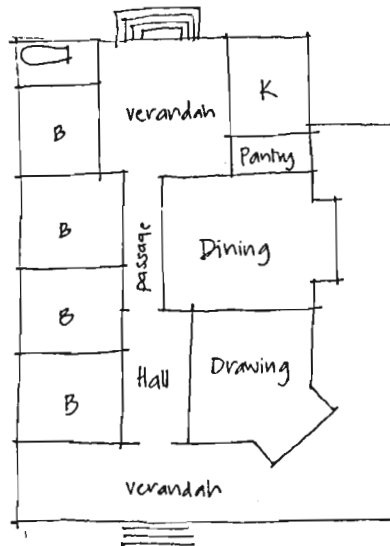
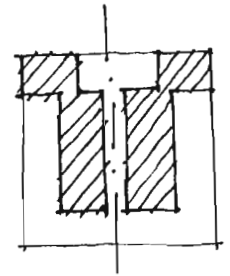
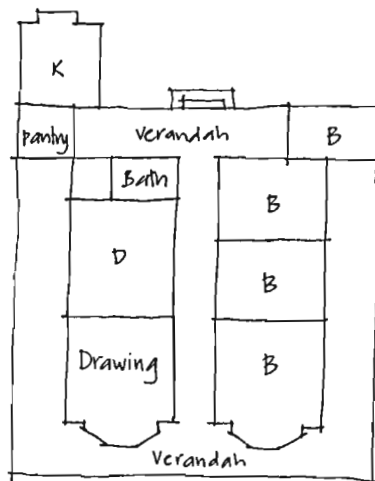


Fig 3.44
1897



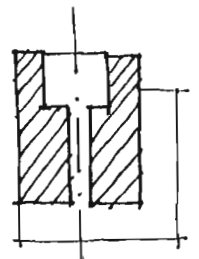
As (iii)

Again a variation to the central corridor theme is the house with a verandah to three sides, (As (iii)). Often in this plan, the rear bathroom and kitchen area occupied a portion of the verandah space.



Ground Floor Plan

Fig 3.16
1892



As (ii)

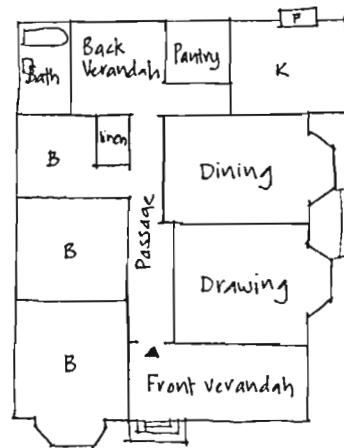
Examples

Fig 3.16, 1892 Fig 3.23, 1893

Fig 3.12, 1891 Fig 3.25, 1893

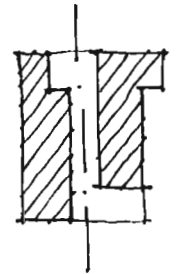
PLAN Bs

Plan Bs (i) is a typical front-verandah house plan type. It is a variation on the central corridor theme. The front room, usually the main bedroom, is projected forward in line with the front verandah. The planning **remains** the same in the rest of the house but the projection allows for an additional room in the bedroom wing.



Plan

Fig 3.38
1896



Bs (i)

Examples

Fig 3.38, 1896 Fig 3.59, 1901

Fig 3.37, 1896 Fig 3.56, 1900

Bs (ii) is a variation of the front verandah house with the addition of a side verandah. (Fig 3.56, 1900).

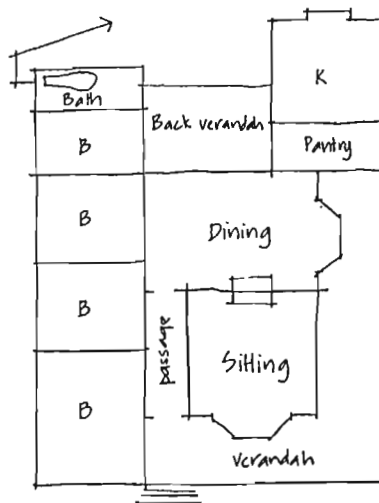
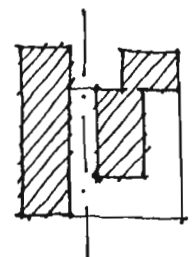


Fig 3.56
1900



Bs (ii)

The plan of the house designed in 1913 for D.M. Shaw Esquire (Fig 3.75, 1913), varies from the typical front-gable house plan. The usual central axis leading from the front door on the verandah to the back verandah has been abandoned. Instead, the front entrance leads off the side verandah, and in doing so forms an "S" shaped passage. The layout of the back or service rooms have taken on an extended version where the original back verandah has become the "meals room". On to this room, a small back verandah has been added, flanked by a work room and the kitchen.

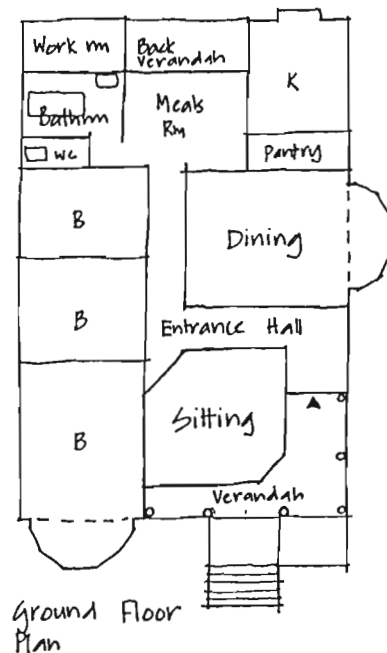


Fig 3.75
1913

PLAN Cs

Plan Cs (i) is a rectangular plan, where instead of the long, main axis running from the front to the rear of the house, linking the front verandah to the back verandah, it runs laterally across the house, crossing the short, front to back axis.

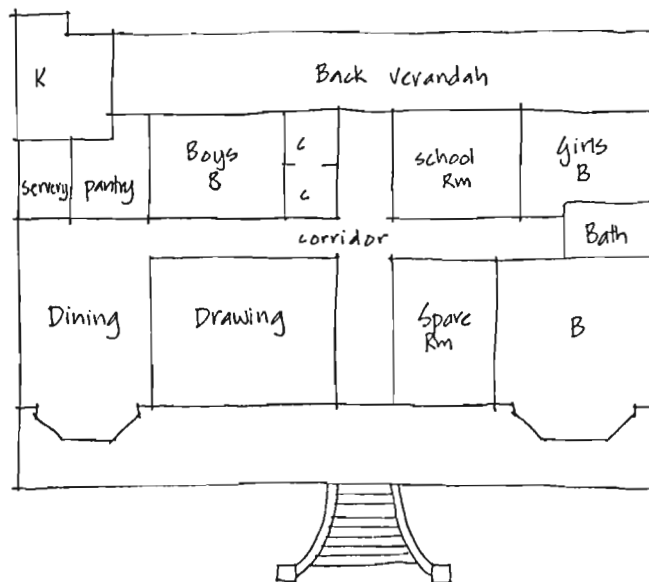
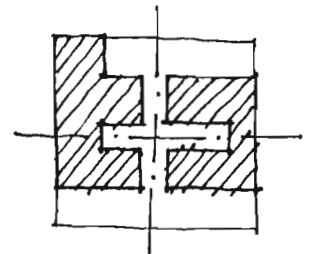


Fig 3.30
1894



Cs (i)

Examples

Fig 3.30, 1894 Fig 3.54, 1899

Plan Cs (ii) is a variant of Plan Cs 9i) with the addition of a side verandah and no back verandah. There is no axis from the front to the back of the house but only a passage which runs laterally across the plan.

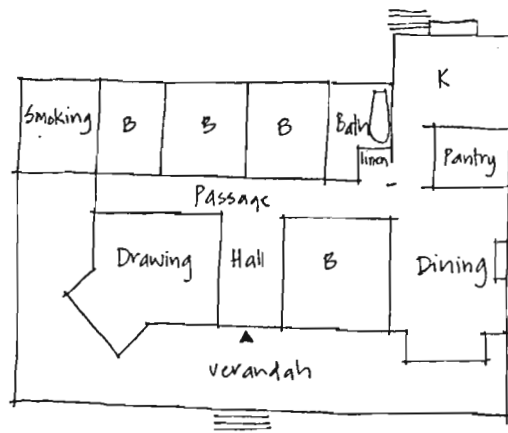
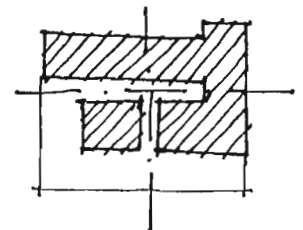
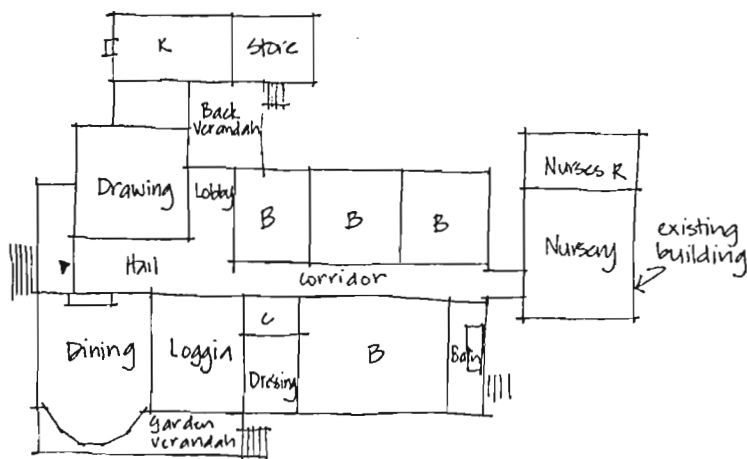


Fig 3.47
1898



Cs (ii)

Although, (Fig 3.55), (designed in 1900, at the turn of the century), is a rectangular plan with the main axis running laterally across the house, a new set of planning principles have been introduced. There is no longer a principal verandah off which the main entrance leads. Instead, there are two almost porch-like verandahs. The side one gives access to the entrance hall, the other to the loggia. The back service rooms form an "L" around the back verandah.

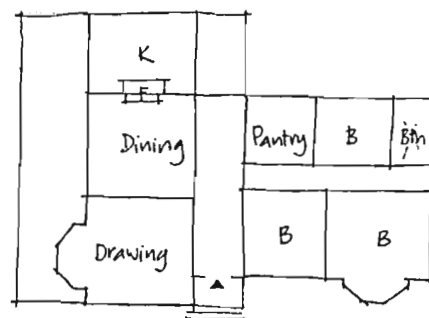


Ground Floor Plan

Fig 3.55
1900

PLAN DS

Fig 3.15, 1892, and Fig 3.17, 1892 are L-shaped plans with a verandah to one side but show no similarities in their zoning of the rooms.



Ground Floor Plan

Fig 3.15
1892

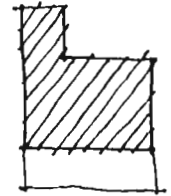


DS

THE DOUBLE STOREY HOUSE OR VILLA PLAN

PLAN Ad

Plan Ad is a rectangular plan with a service wing as a back extension forming a "L" shaped plan. The plan **has** a front verandah with the principal rooms forming a rectangular plan with the kitchen and related areas forming a secondary leg to the main spaces. The positions of the entrances vary between plans.



Ad

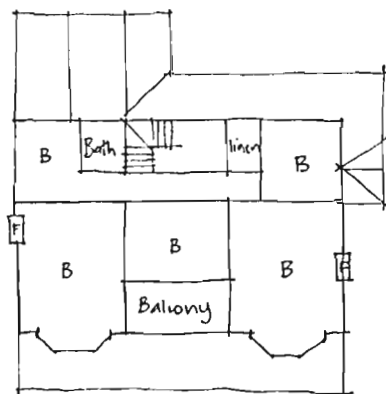
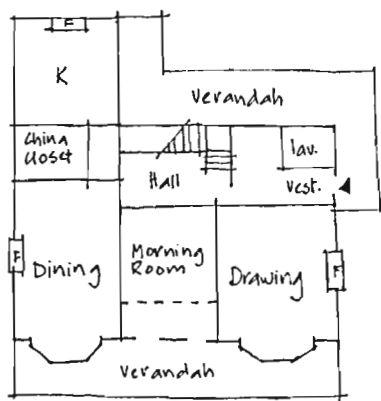


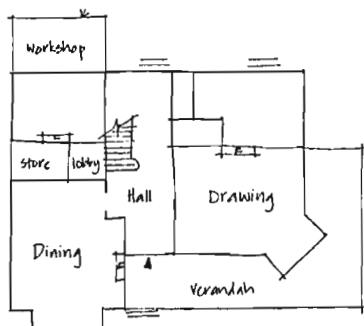
Fig 3.10, 1891 Fig 3.12, 1891
Fig 3.48, 1898 Fig 3.61, 1902

First Floor Plan

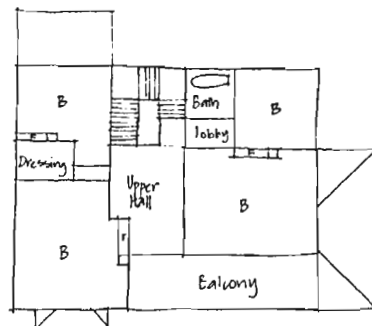
Fig 3.10
1891

PLAN Bd

Plan Bb is a double storey, front-gable house plan. The plan is a rectangular plan with the front room projected forward, in line with the front verandah area.



Ground Floor Plan



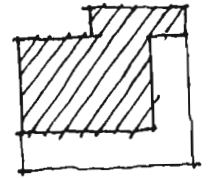
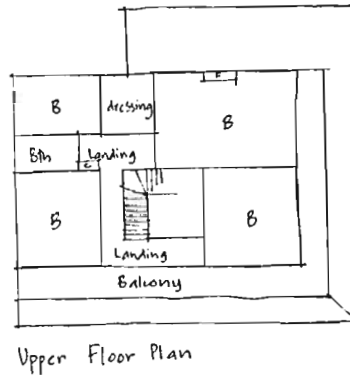
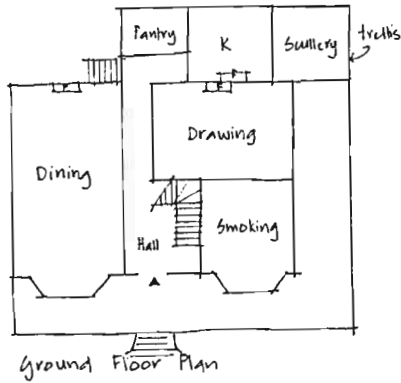
Floor Plan

Fig 3.57, 1901 Fig 3.26, 1893
Fig 3.64, 1903 Fig 3.19, 1893

Fig 3.57
1901

PLAN Cd

The plan is rectangular with verandahs either to the front or back of the house.



Cd

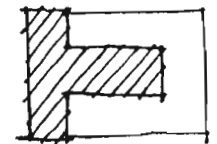
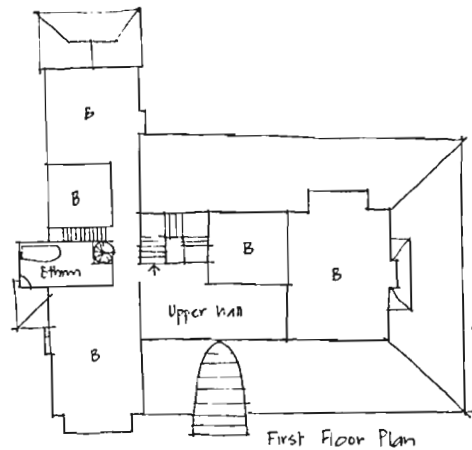
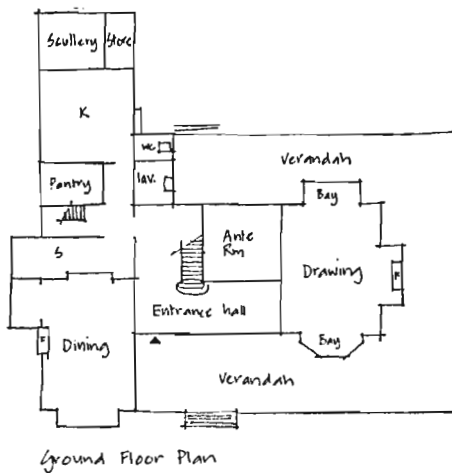
Examples

Fig 3.65, 1903 Fig 3.60, 1902

Fig 3.60
1902

PLAN Dd

The T-shaped plan could also be interpreted as a combination of the Plan Ad and Bd which would result in a T-Shaped plan.



Dd

Examples

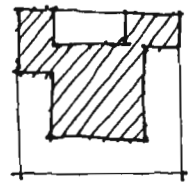
Fig 3.67, 1904 (in form not really plan)

Fig 3.45, 1898

Fig 3.45
1898

PLAN Ed

The square or central plan is most frequently used. Here the principal rooms make up the square on plan with the position of the secondary rooms varying from a rectangle projecting off the square (Fig 3.34, 1895) or split to either side of the verandah (Fig 3.51, 1898).



Ed

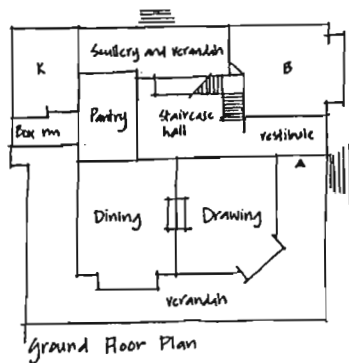
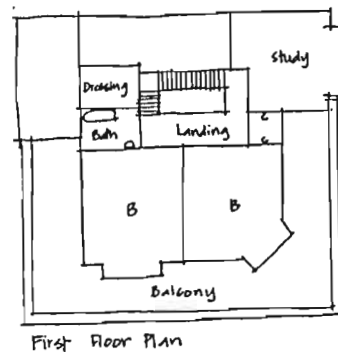


Fig 3.51
1898



First Floor Plan

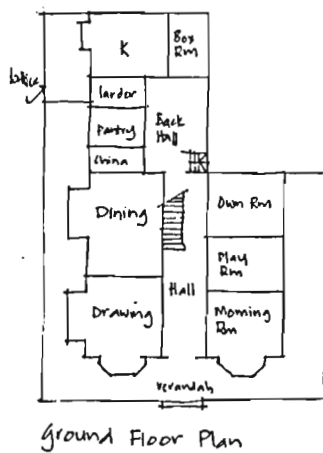
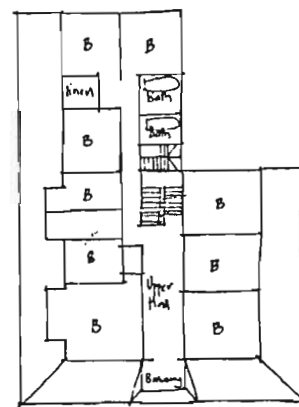
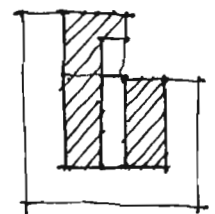


Fig 3.34
1895



First Floor Plan



Ed

Examples

Fig 3.35, 1895

Fig 3.40, 1896

Fig 3.34, 1895

Fig 3.51, 1898

Fig 3.33, 1895

Fig 3.66, 1904

The house designed in 1905 for J.G. Kemp in Mentone Road (Fig 3.71), has a unique plan type. The main entrance at the side of the house which is unrelated to the main verandah. This entrance leads into an entrance hall off which the rooms rotate progressing from the morning room, to the drawing room to the dining room and then to the kitchen and service rooms.

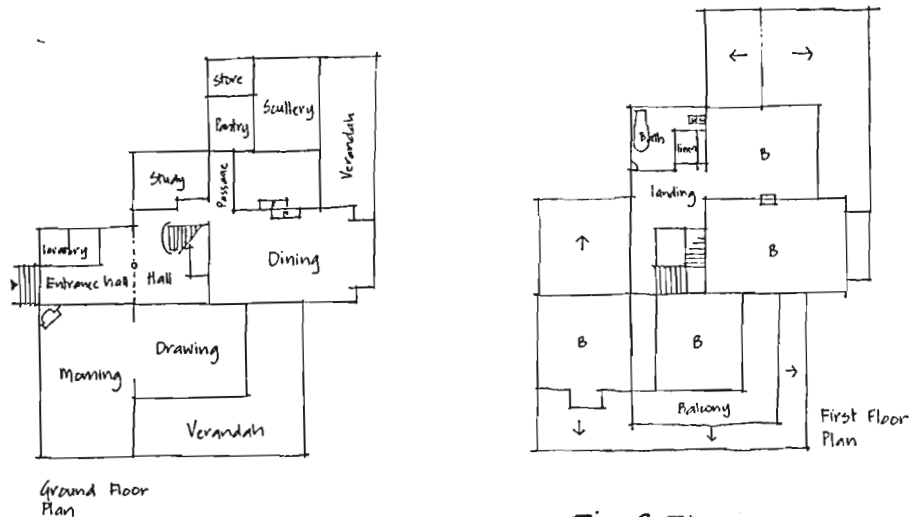


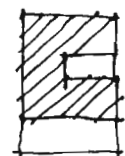
Fig 3.71
1905

PLAN Fd

The twentieth century saw the introduction of a new double storey plan type. The main change is seen in the relationship between the main entrance and the principal verandahs. The main verandah is no longer synonymous with the front entrance. Instead, the front entrance is celebrated by a small recessed porch. The verandah becomes a side verandah to the dining and drawing rooms. The plan is square with the front hall linked to the back porch by the central passage. (Fig 3.66, 1904)



Fd



Fd

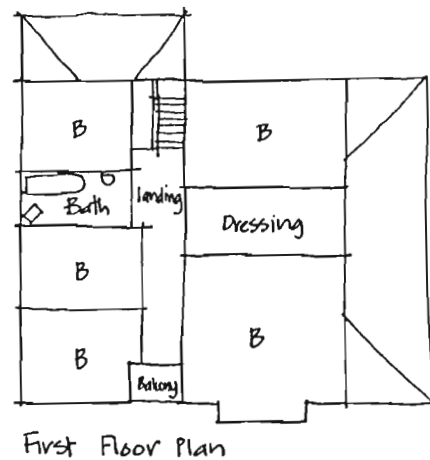
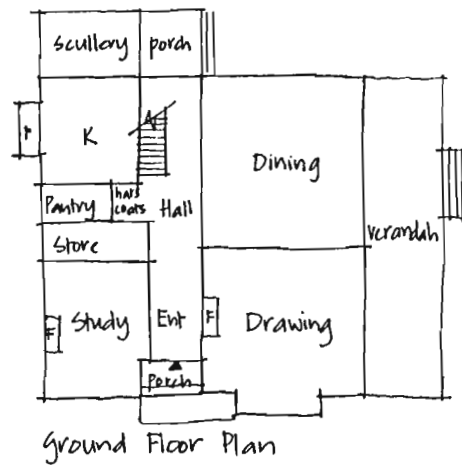
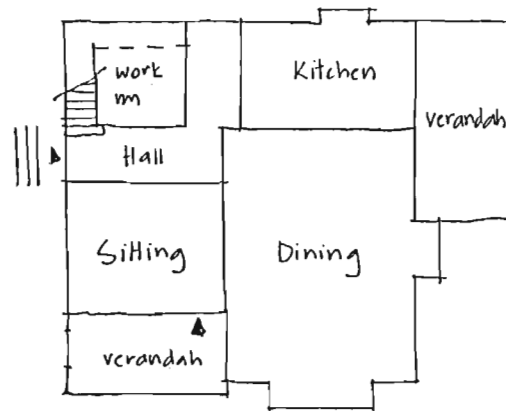


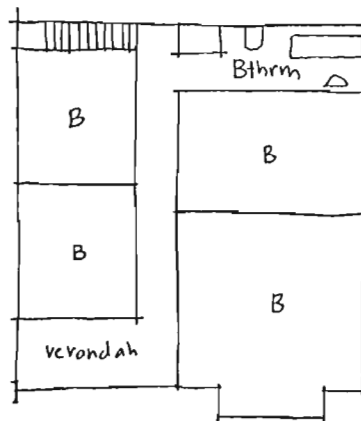
Fig 3.66
1904

Similarly, houses have square, or close to square, plans and show the main entrance separate from the verandahs but here the entrance to the house is at the side and leads to the entrance hall and stair. The reduced verandah relates to the sitting and dining rooms. Occasionally a back verandah is linked to the kitchen (Fig 3.74, 1912).

The feature of the front entrance unrelated to the principal verandah first appeared in the double storey house in (Fig 3.48) in 1898, just before the turn of the century.



Ground Floor Plan



Upper Floor Plan

Fig 3.74
1912

Examples

Fig 3.72, 1909

Fig 3.73, 1911

Fig 3.74, 1912

Fig 3.76, 1913

THE SEMI-DETACHED HOUSE

All the semi-detached houses referred to are double storey houses since there are no examples of single storey semi-detached houses in the drawing collection.

As with the typical single and double storey houses, there is a general layering of rooms from the front verandah, through to the drawing room, the dining room and to the rear, service area which included the back verandah. The service rooms made up the back extension of the house and included the kitchen and ancillary rooms, such as coal storage rooms, a wash room, W.C.s and servant's rooms. These were positioned either against the party walls or against the boundary walls creating an internal yard.

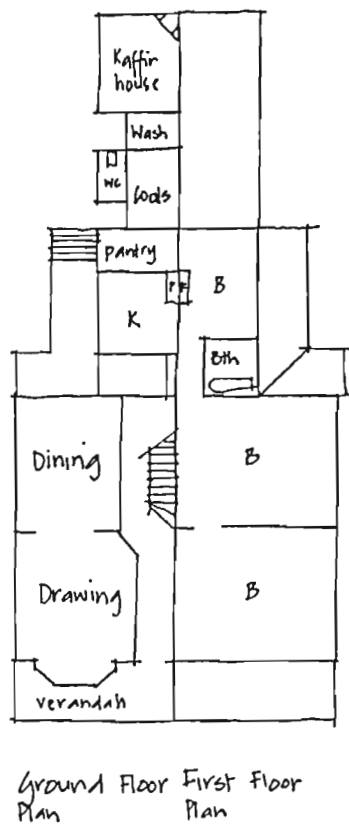


Fig 3.4b
1898

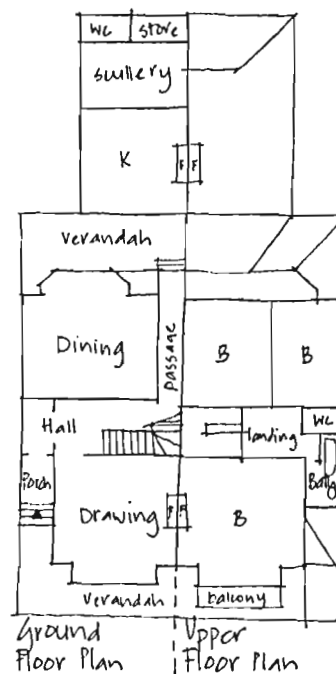


Fig 3.13
1891

There are three main plan types with each plan showing minor deviations in the position of the entrance and stair. The one shows the main entrance off the verandah along the party wall linking directly to the passage and stair (Fig 3.46, 1898), the other type shows the entrance and stair on the boundary wall (Fig 3.39, 1896) and the third shows the entrance on the boundary side with an "L" shaped passage giving access to the stair (Fig 3.13, 1891).

The back verandah sometimes separated the dining from the kitchen as in (Fig 3.13, 1896), (Fig 3.41, 1896), or was a side extension to the kitchen (Fig 3.11, 1891).

The main bedroom always faces to the front of the building, sometimes leading onto a balcony (Fig 3.11, 1891) (Fig 3.13, 1896) while the secondary bedrooms and bathroom are positioned over the entire ground floor except (Fig 3.13, 1896) where they are positioned over only the dining/living area.

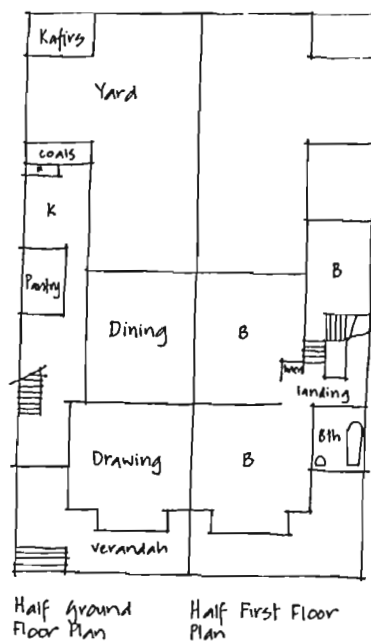


Fig 3.39
1896

Examples

- | | |
|----------------|----------------|
| Fig 3.11, 1891 | Fig 3.46, 1897 |
| Fig 3.13, 1891 | Fig 3.58, 1901 |
| Fig 3.39, 1896 | Fig 3.63, 1903 |
| Fig 3.41, 1896 | |

SUMMARY

THE PLAN

The Single Storey Plan

Through the late 1880s and 1890s definite plan types and forms emerged for both the single and double storey houses with slight variations.

The most common plan is Type A with its strong central axis off which all the rooms lead, and which links the front verandah to the back verandah. There is ordered layering of rooms from the front rooms to the service rooms at the rear of the house. This plan type is seen in conjunction with a single, double or three sided verandah. Less common is Type B plan or the gabled verandah house, which is found in combination with either a single or two-sided verandah, followed by the rectangular plan Type C, and the Type D or L-shaped plan, both with one verandah.

Throughout the period studied, the verandah, both front and back, takes on a strong dominant role and is a consistent element throughout every design. The evolution of the plan goes hand-in-hand with that of the verandah. It is associated with the front and the entrance of the house up until the turn of the century.

It is only at the turn of the century that the verandah takes on a new form in two house examples. The residence designed for Sir Percy Binns in 1901, (Fig 3.58, 1901), is such an example where the extent of the verandah lessened. The house has two small verandahs, one being an entrance verandah and the other to the dining and loggia. The plan also does not show the usual layering of rooms from the front entrance to back, but instead, the service areas form an "L" shape around the back verandah.

The front verandah to the house designed by Street-Wilson and Paton in 1913 for D. M. Shaw at 584 Currie Road (Fig 3.75, 1913), is encroached by the sitting room which renders the verandah unusable area. The usual, central positioning of the front door has been disregarded and the entrance is now to the side of the house. The back section of the house has been extended so that the usual back verandah has become the "meals room" and an additional back verandah, flanked by a work room and the kitchen, appears at the back of the house.

The Villa or Double Storey Plan.

Five main plan types have emerged, four being variations on the rectangular plan and the fifth plan being a square plan, with variations in the position of verandahs and the service wing. Unlike the single storey plan the main line of axis does not occur, nor does a **passage** always link the front verandah to the back verandah. The plans **are more** central, **dominated** by the hall. In principle, the living rooms are **positioned** on the ground floor and the bedrooms and bathrooms on the upper floor.

As with the single storey plan, the verandah is synonymous with the main entrance until the turn of the century.

A shift in planning principles and the status of the verandah, takes place in the villa plan at the end of the Victorian era (1899) and the beginning of the Edwardian era (1900 onwards). Whereas the square plan was popular in the Victorian period, the rectangular plan type (Fig 3.57, 1901 and Fig 3.58, 1901) is more common in the early part 1900 and by 1904, two new plan types are encountered.

The first plan type can be seen in the houses designed for Miss Fenwick off Goble Road in 1904 (Fig 3.67) and for J.G. Kemp on Mentone Road in 1905 (Fig 3.71). The plan is a pivotal plan, where the rooms **are** rotated around the main hall area, and demonstrates a new sequence of **both** planning and spatial organisation. In the Mentone Road example, the verandah is not related to the entrance door.

The second plan type is reflected in the design of the new vicarage in Musgrave Road for St Thomas' church, designed in 1904 (Fig 3.66), and is the first villa example where the verandah is not related to the main entrance and central hall. Instead a recessed porch gives shelter to the entrance door. The verandah then relates to the more private rooms such as the living and bedrooms, away from the public entrance and opens onto the garden.

The plan is a square and the hall is no longer a dominant pivot point and its proportions are meagre acting purely as a horizontal and vertical circulation space.

This new plan type lead to several of its kind being designed up until the last house of the drawing collection, (Fig 3.76, 1913).

Semi-detached House Plan.

There are three semi-detached house types with variations in the positioning of the main entrance and its relationship to the stair, however the same planning principles prevail throughout all the examples, with a strict ordering of spaces from front to service back areas with bedrooms and bathrooms on the first floor. Only two of the seven semi-detached houses in the drawing collection were built before 1900, making it a more common Edwardian plan type. As with the other house types, with the evolution of the house plan comes the demise of the verandah and the back verandah in the last example of the semi-detached house, is omitted (Fig 3.63, 1903).

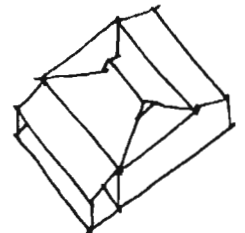
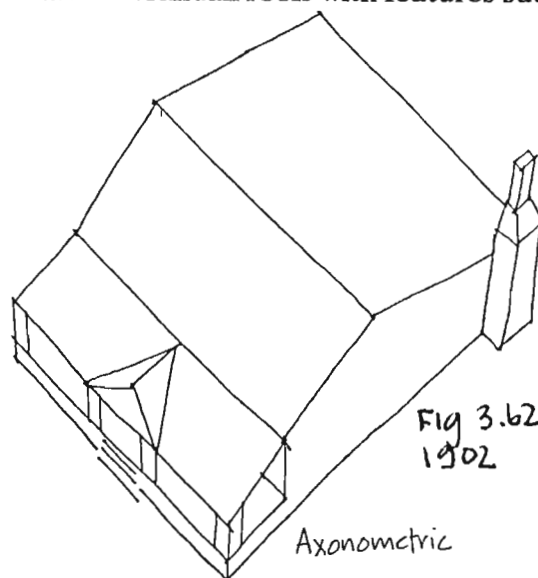
5.1 iii FORM

THE SINGLE STOREY HOUSE FORM

Essentially the single storey house form is composed of a primary core of perimeter walling with its own roof and the secondary roofs covering verandahs and services areas. The verandah roof appears either as a flared extension of the main roof or as an articulated roof, where it is separate from the main body of the house. The main roof covers the principal rooms of the house such as the drawing, dining and bedrooms. The lean-to roofs cover the service rooms such as the kitchen/pantry, the bathroom and back verandah. Form typologies have emerged to reflect both the single storey and double storey plans.

FORM As

Form As (i) is typical of the above description and has a front and back verandah. Variations to this type occur in different treatments of roof pitches of the back verandah roofs and embellishment of the front verandah roofs with features such as a pitched gablet.



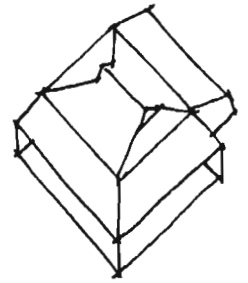
As(1)

Examples

Fig 3.29, 1894 Fig 3.4, 1890 Fig 3.2, 1889 Fig 3.33, 1895
Fig 3.50, 1898 Fig 3.62, 1902 Fig 3.18, 1892 (has no back verandah)

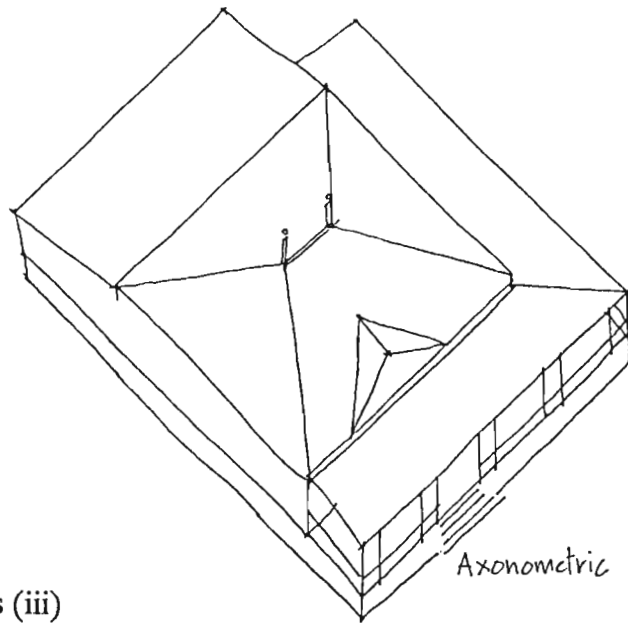
Forms As (ii)

Form As (ii) follows the same form as Form As but has a verandah to two sides.



As (ii)

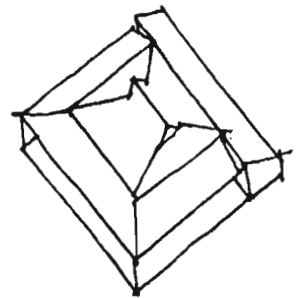
Fig 3.44
1897



Axonometric

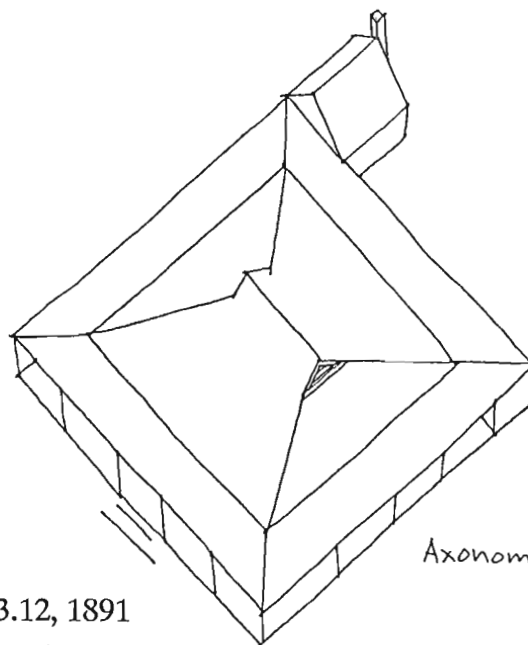
Form As (iii)

Forms As (iii) has a verandah to three sides, which together with the back verandah forms a wrap-around verandah.



As (iii)

Fig 3.16
1892



Axonometric

Examples

Fig 3.16, 1892 Fig 3.12, 1891

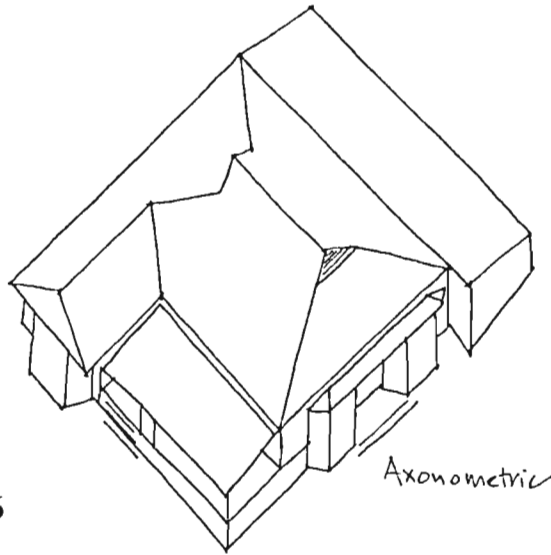
Fig 3.23, 1893 Fig 3.25, 1893

FORM Bs

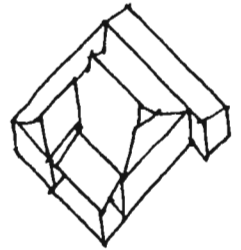
Form Bs is the form of the front-gable house. The front room, which has been projected forward in line with the front verandah, is covered by a separate roof with a gable end.

Form Bs (i) has a front verandah only.

Fig 3.38
1896



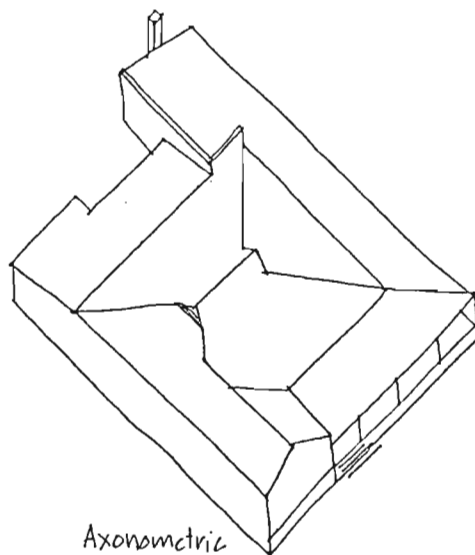
Examples
Fig 3.38, 1896
Fig 3.59, 1901



Bs (i)

Form Bs (ii) has a verandah which wraps around the building to form a two sided verandah.

Fig 3.56
1900



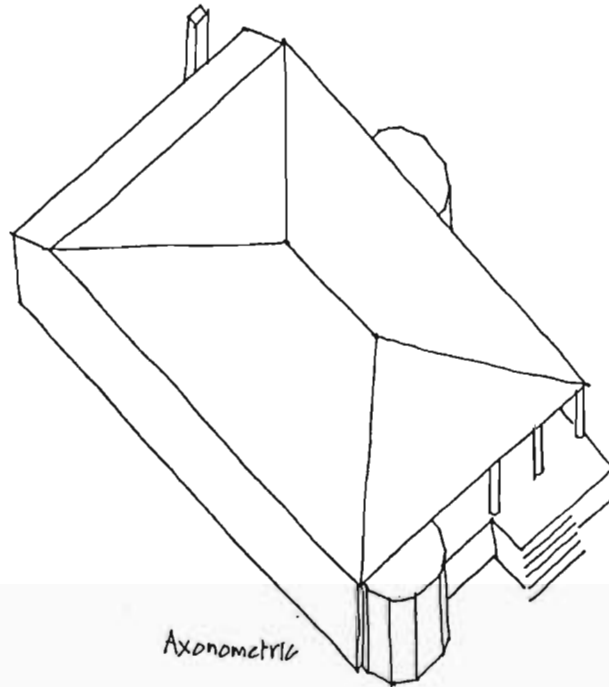
Examples
Fig 3.37, 1896
Fig 3.56, 1900



Bs (ii)

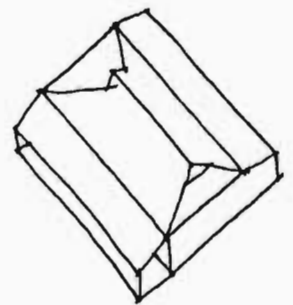
The single storey form of the house designed in 1913 for D.M. Shaw (Fig 3.75), introduces a new form where the roof is no longer separated into a main roof with two secondary front and verandah roofs, but instead, one hipped roof stretches over the whole plan, including the verandahs.

Fig 3.75
1913



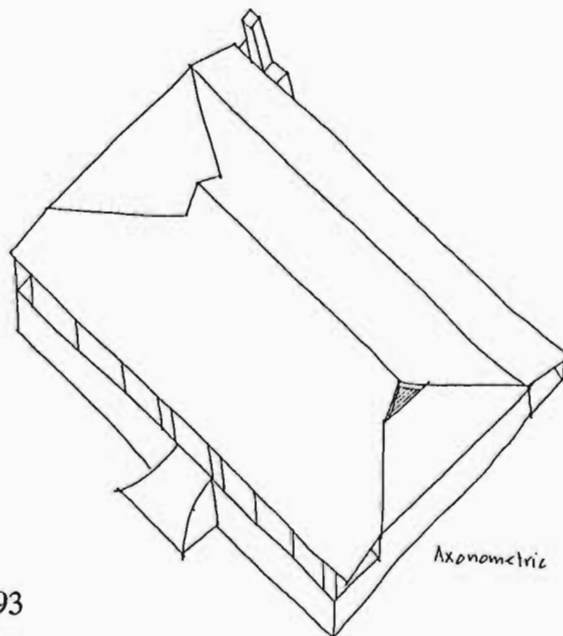
FORM Cs

Form Cs is a rectangular form of type which corresponds with its rectangular plan. Form Cs (i) has a front and back verandah.



Cs

Fig 3.30
1893



Examples

Fig 3.30, 1893

Fig 3.54, 1899

The house designed for Percy Binns on 1900, (Fig 3.55) shows a variation of the typical Form C with the service rooms forming an "L" shape around the back verandah.

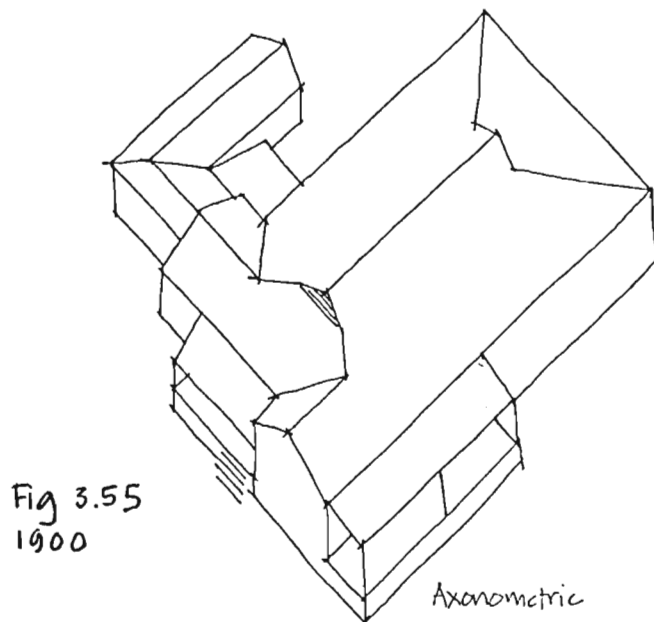


Fig 3.55
1900

FORM Ds

Form Ds is "L"-shaped with one side verandah.

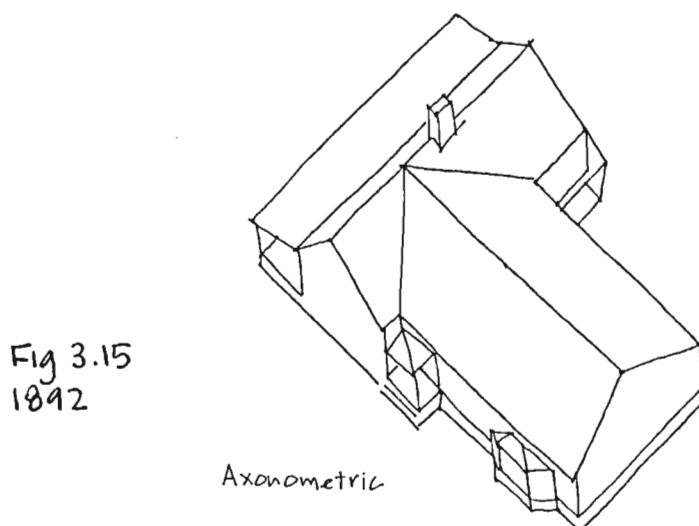
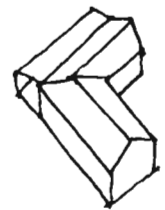


Fig 3.15
1892

Examples

Fig 3.15, 1892

Fig 3.17, 1892

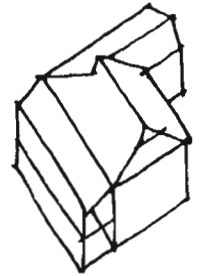


Ds

THE VILLA/DOUBLE STOREY HOUSE FORM

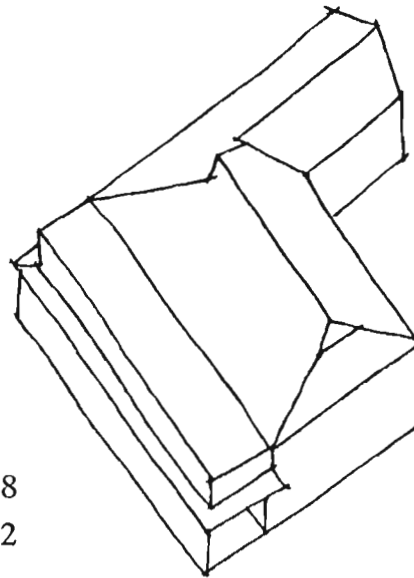
FORM Ad

Form Ad is rectangular form with the main core of the house under one roof from which extends the roof to the service wing. The service wing appears either as a double storey or single storey form. A verandah addresses the front of the house but varies being either double or single storeyed.



Ad

Fig 3.48
1898



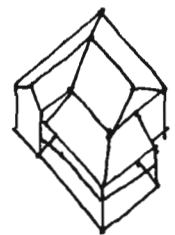
Examples

Fig 3.10, 1891 Fig 3.48, 1898

Fig 3.12, 1891 Fig 3.61, 1902

FORM Bd

Form Bd is similar to that of the rectangular form of the single storey version. The verandah configurations vary.



Bd

Fig 3.57
1901

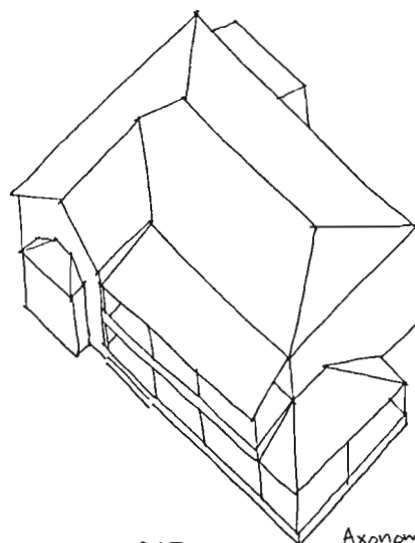
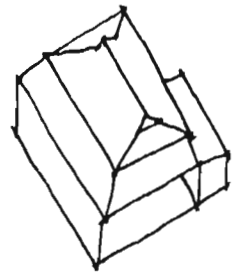


Fig 3.65, 1904

Fig 3.60, 1902

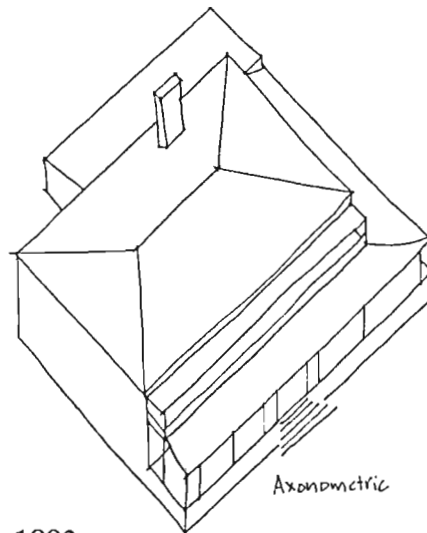
FORM Cd

Form Cd is an example of a double storey, front-gable verandah house where the plan is rectangular and the front room is projected onto the front verandah. Like its single form counterpart, the front room is covered by a separate roof with a gable end.



Cd

Fig 3.60
1902



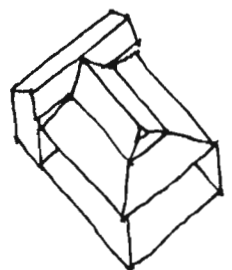
Examples

Fig 3.57, 1901 Fig 3.19, 1893

Fig 3.64, 1903

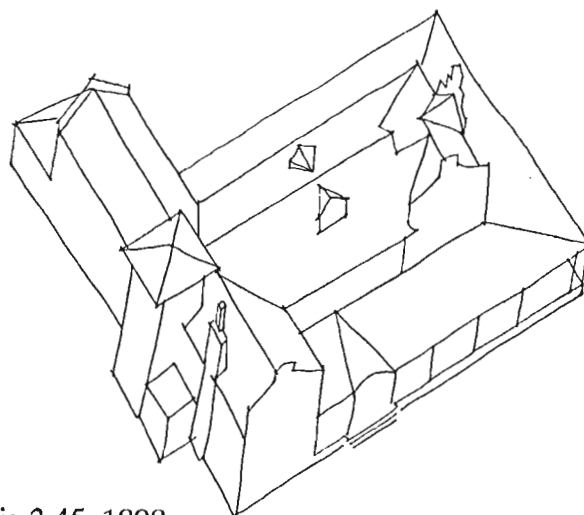
FORM Dd

Form Db is "T"-shaped and results from the service wing and the front gable intercepting the main rectangular form of the house.



Dd

Fig 3.45
1898



Examples

Fig 3.67, 1904 Fig 3.45, 1898

FORM Ed

The square or central plan translates into a pyramidal roof form over the main body of the house. Variations take place in the positioning of the service wing and the number of storeys and configurations of the verandahs.

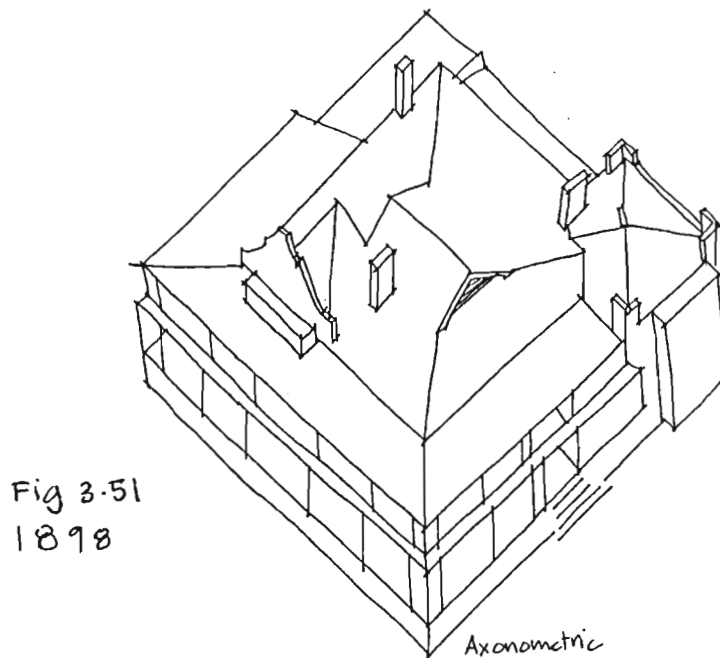
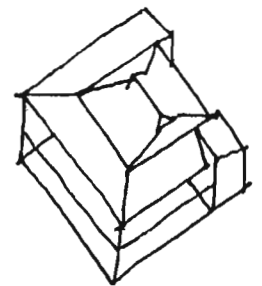


Fig 3.51
1898



Ed

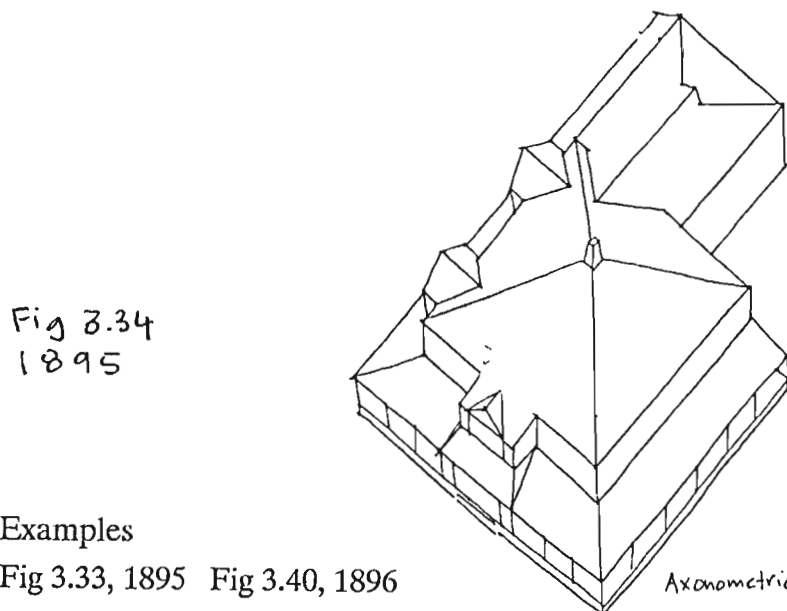
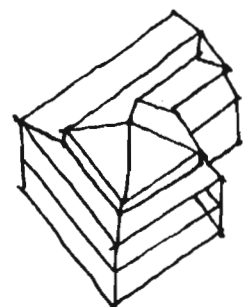


Fig 3.34
1895



Ed

Examples

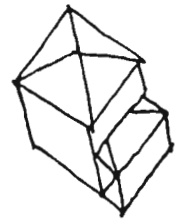
Fig 3.33, 1895 Fig 3.40, 1896

Fig 3.34, 1895 Fig 3.51, 1898

Fig 3.35, 1895 Fig 3.66, 1904

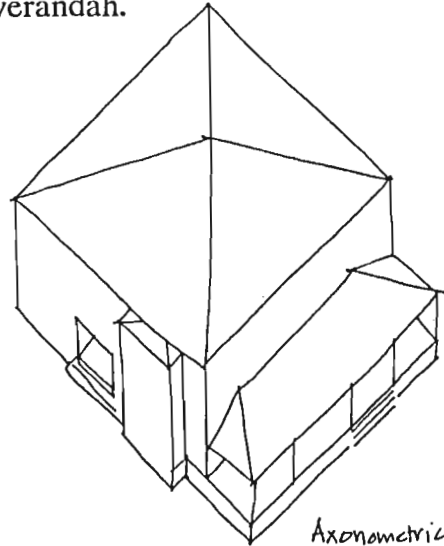
FORM Fd

The changes witnessed in the plans at the turn of the century, are reflected in the forms. In Form Fd, the house is a simple square form with a pyramidal roof and has a separate lean-to roof expressing the single storey verandah.



Fd

Fig 3.66
1904



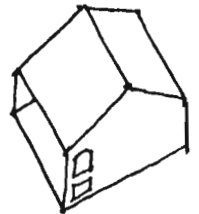
Axonometric

Examples

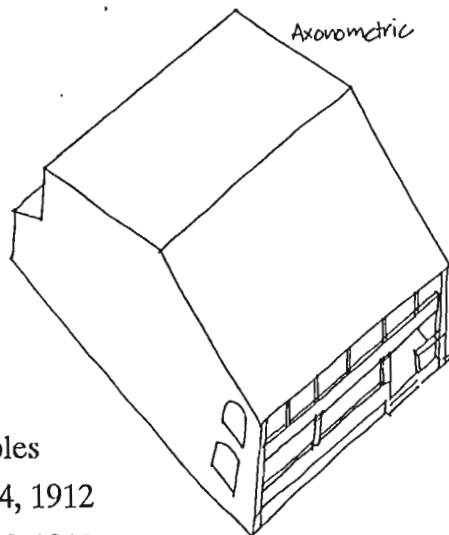
Fig 3.66, 1904

Fig 3.73, 1911 (shows a pitched roof with gable ends with a separate verandah).

A new form emerges with examples where part or all of the verandah becomes incorporated under one main roof and is no longer expressed as a separate element. The side of the verandah becomes part of the gable end wall.



Fd



Axonometric

Fig 3.76
1913

Examples

Fig 3.74, 1912

Fig 3.76, 1913

FORM Gd

Another new development in the form is expressed Form Gd with the introduction of a new roof line. The roof extends from the upper level of the house to the lower level.

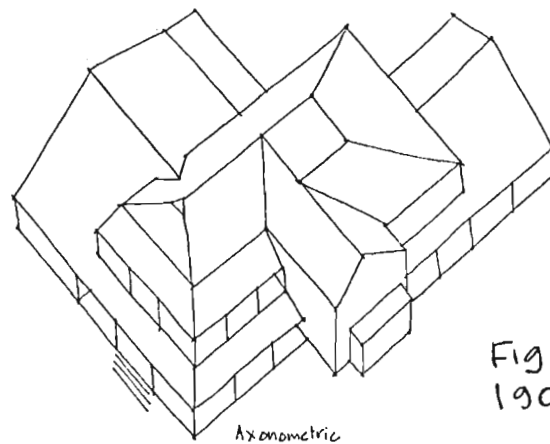


Fig 3.71
1905

Examples

Fig 3.72, 1909

Fig 3.71, 1905

A change in the attitude towards the roof design can first be seen in 8 Newcombe Place, designed in 1902. Previously, the main body of the plan would have been under one roof. Instead, there is a split in the roof so that part of the upper floor has its own roof and part becomes an attic room to a lower roof. This lower roof then extends into the verandah roof so that there begins to be a marriage between upper roof and lower roof.

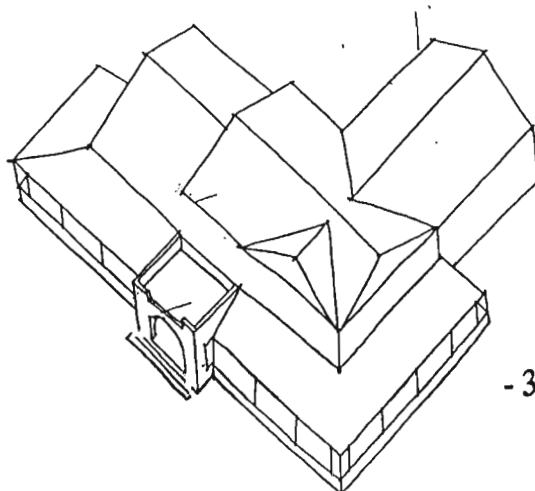
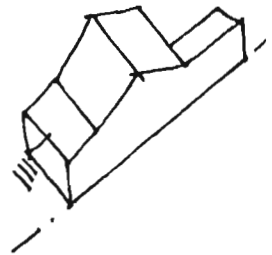
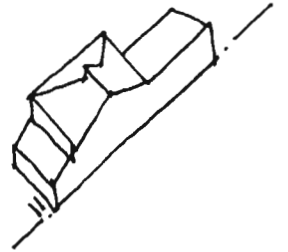
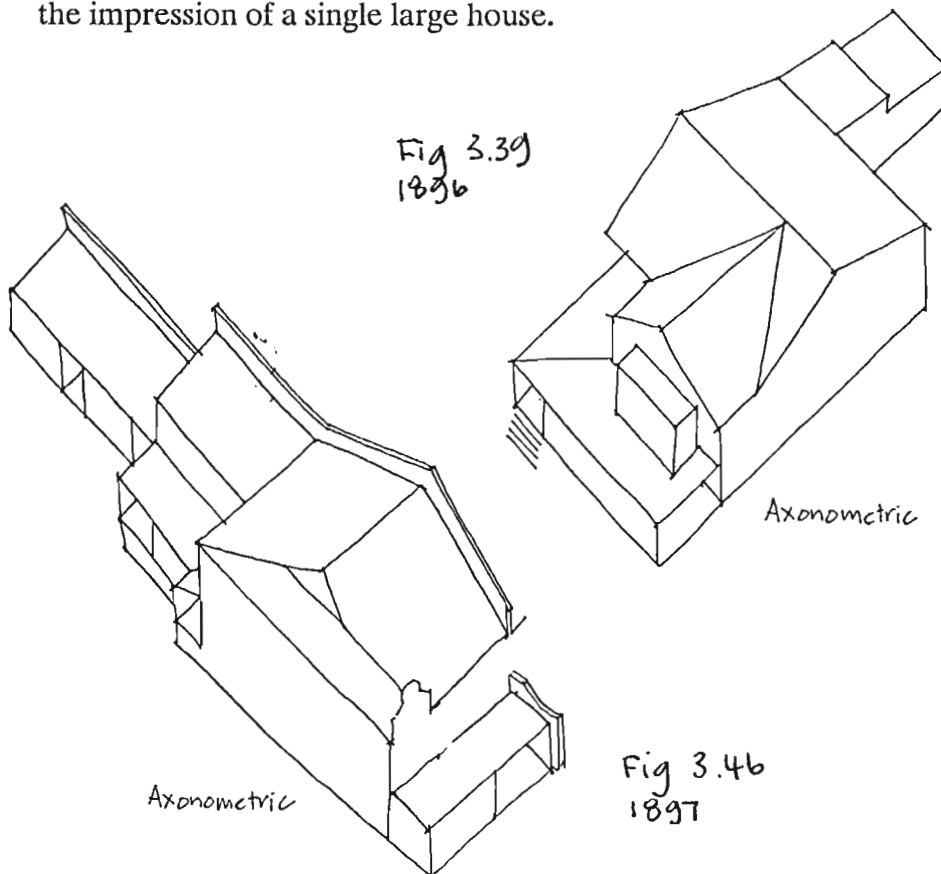


Fig 3.60
1902
8 Newcombe
Place

THE SEMI-DETACHED HOUSE FORM

As with the forms of both the single and double storey houses, the main roof covers the principal rooms of the house while the secondary rooms making up the back extension, are under lean-to roofs. The main roof is either hipped or has a gable end, but the ridge runs laterally across the house and butts onto the party wall.

The lean-to roofs vary between designs but generally, lean away from the party wall. Viewed as a whole form, the two units give the impression of a single large house.



Examples

Fig 3.11, 1891 Fig 3.39, 1896 Fig 3.46, 1897
Fig 3.63, 1903 Fig 3.13, 1896 Fig 3.41, 1896
Fig 3.58, 1901

Summary

THE FORM

With the different plan types are corresponding forms.

Until the change of planning principles is introduced in 1900, the form of the houses is essentially a box of perimeter support **walling** with a trussed roof system. This main roof, usually **a ventilated**, hipped roof, is then extended either by a continuous or articulated verandah roof to create a covering to the front and/or side verandahs and to the service areas of the house. Often a gable is used in conjunction with **the verandah**. **This** typical form type is applicable to the single storey house, the semi-detached house and the villa.

The Single Storey Form

The single storey form of the house designed in 1913 for D.M. Shaw Esquire (Fig 3.75), introduces a new form where the roof is no longer separated into a main roof with two secondary front and back verandah roofs, but instead, one monogamous roof stretches over the entire plan, including the verandahs. A secondary verandah is added to roof the extension at the back of the plan.

The Villa or Double Storey Plan

While the pyramidal roof form is common to the houses designed in the Victorian Era, the simple hipped roof is used in conjunction with the rectangular plan in the early 1900s. A shift in the attitude to the roof form is introduced in the double storey house at 8 Newcombe Place (Fig 3.61, 1902) where the main roof is fragmented into an upper and lower roof.

Despite the introduction of a new pivotal plan, the form of the house off Goble Road (Fig 3.67, 1904), is no **different to the previous house** forms. The extended roof-line appears in 1905, at the time Paton was made a partner. This may suggest that this feature was introduced by Paton himself.

This was the "flared" or "extended" roof-line and is used in roof design of the house in Mentone Road (Fig 3.66, 1904). The roof starts to flow from the top level down to the eaves and covers the whole plan including the verandahs, under one sweeping roof. The pivotal nature of the plan is then expressed in the form. This type of roof form is used in conjunction with a combination of roofs such as the typical hipped, ventilated roof, the gable roof and a balustraded roof.

The form of the house evolves through stages of resolution from the combination of the extended roof line and the turn-of-the-century square plan (Fig 3.72, 1909) where the verandahs are still expressed in the form, to the last example in the drawing collection (Fig 3.76, 1913) where the form is simplified and the whole plan, including verandahs is under one pitched roof.

With this change in form comes a change in the relationship of wall to roof. The emphasis shifts from the roof to the gable end wall, making the gable all powerful. The gable wall has become a solid mass punctured by openings to the side of the verandah. The verandah is no longer an expression of entrance but relates to the drawing and dining rooms and, as with the single storey house, this form indicates the demise of the verandah as an expression of the form.

Semi-detached House Form

As with the plan, there is very little change in the form of the semi-detached house between the first example in 1891, (Fig 3.11) and the last example (Fig 3.63, 1903). Both have the main body of the house roofed under a hipped ventilated roof, while the secondary service rooms, making up the back extension, are under lean-to roofs. The treatment of the lean-to roofs vary between the two.

Although all house types are designed with the typical "Queen Anne" elaborate fronts and service "Queen Mary" backs, the three dimensional appearance of the house, relating to the approach to the front entrance and front verandah of the house, was of great concern. Sketches, such the perspective of Henwood's house at 210 Lambert Road (Fig 5.6, 1896) demonstrate this.

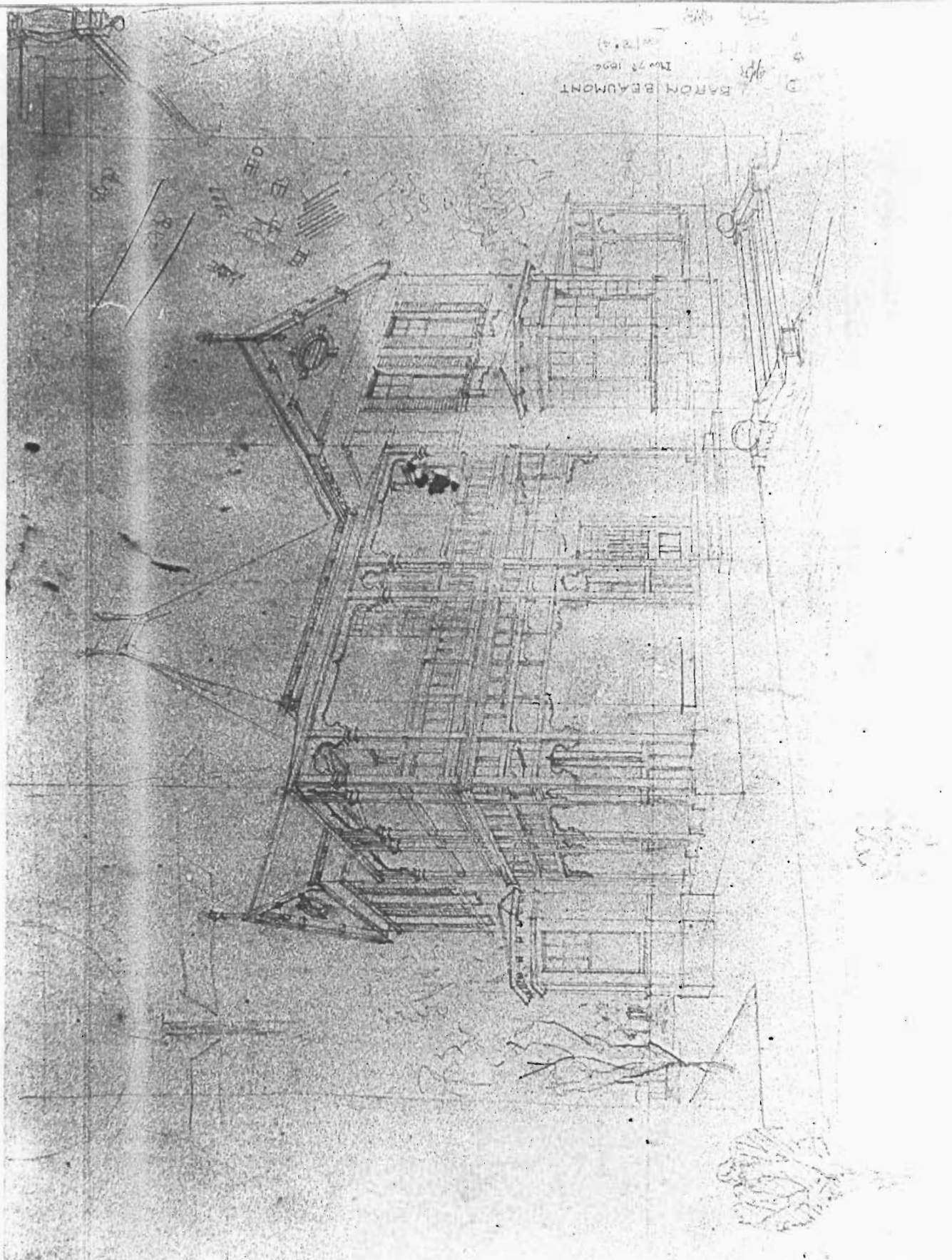


Fig 5.6
Perspective for H. Henwood (Fig 3.36, 1896)
- 325 -

5.1 iv STYLISTIC ANALYSIS

In addition to the plan and the form of houses within the drawing collection, the stylistic development can be discerned by examining the detailing of the houses.

THE ROOF

The late Victorian decade, between 1890 and 1900, saw some richly embellished roofscapes. Elaborate classical and semi-classical motifs are used in the detailing of ridge cupolas and ventilators. Hipped roofs are often crowned with wooden balustrades to "widow's walks", with ridge finials and cresting. Grouped chimney stacks, make up an important part of the roof line and are detailed with plaster bands and plaster quoining and topped with a variety of different shaped chimney pots. Ventilators to the capacious hipped roofs are consistently used and eaves are often supported by classically moulded timber brackets. A small pitched roof or portico roof, to the verandah, with classical detailing often celebrates the main entrance.

Such roofscapes are illustrated in the Victorian villas designed for William Wood of Ridge Road in 1898 (Fig 3.45), for R. Reid Cochrane in 1895, at 668 Essenwood Road (Fig 3.33), for A. Findlay Esq. of Essenwood Road, in 1895 (Fig 3.40), for J Chiazzari Esq. (Fig 3.40, 1896) and designed for Captain Reeves in Musgrave Road, in 1898¹ (Fig 3.51).

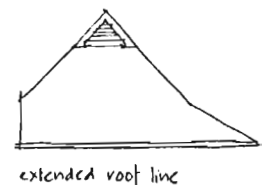


1: Similar roofscapes can be seen in the designs of Norman Shaw such as "Leys Wood" (1867-1869) and 31 Melbury Road (1875-7), Lethaby's "The Hurst" (1893) and Nesfield's design for "Loughton Hall" in 1878, all produced in the "Queen Anne" Style. (See Chapter 1)

The roofing material used up until c1900, was corrugated iron. (See Chapter 7 on Materials) The adoption of this material necessitated the use of the ventilated roof, as ventilators are necessary to dispel heat build up in the roof.

The architect Methven, in c1903, in his article on Domestic Architecture in Natal, comments on the use of corrugated iron. "The fact is, we have, in this colony at least, only one early tradition upon which to build, as regards to our architecture, and that is corrugated iron - to which in more recent years has been added Portland cement. The fatal facilities afforded by the two materials I have just named, has done more than at first sight appears towards the degradation of our domestic architecture. Had we been thrown more upon our own resources in providing the materials with which to build - materials placed by nature in many localities to our hand - what a vastly different development in our dwellings would have taken place." (Methven c1903:90).

Later, at the turn of the century, the introduction of imported terracotta tiles changed the early Victorian, light-weight industrial appearance of the buildings into something more solid and typical of the Edwardian era. (Fig 3.64, 1903).



From 1900 on, decoration to the roofs is minimised and eventually excluded. Chimney detailing becomes simplified and purely functional.

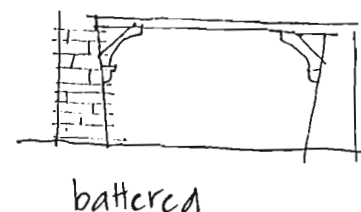
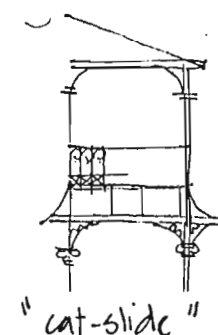
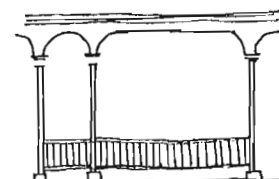
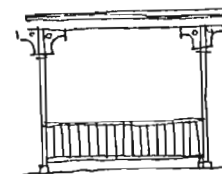
THE VERANDAH

The detailing of the verandah consists essentially of a timber post with a pair of brackets which range from the most simple (Fig 3.29, 1894) to something more ornate (Fig 3.33, 1895), to the use of the extended bracket which may be continuous between two posts, (Fig 3.46, 1898) or extended half way between two posts. Where paired columns are used, a simple timber infill links the two brackets, (Fig 3.12, 1891) and occasionally the post and brackets are topped with a simple continuous frieze (Fig 3.13, 1891). The simple detailing of these elements suggests that they have been designed and crafted for each particular house and not sourced from catalogues. This being true to the Arts and Crafts philosophy of crafted elements being utilised in a building.

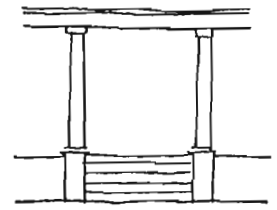
The verandah roof is usually a lean-to roof with a straight profile. There are a few exceptions. These include (Fig 3.26, 1893) which has a "bell-cast" profile, and (Fig 3.40, 1896) which has a typical "cat-slide" profile. The "typical bell-cast profile ...is one of the essential hallmarks of the nineteenth century colonial architecture." (Kearney 1984:14).

Timber supports are used throughout the drawing collection with only one example where cast-iron columns were used. (See Chapter 7 on Building Materials). These are evident in David Don's house (Fig 3.64, 1903) where they support the upper verandah and its concrete floor.

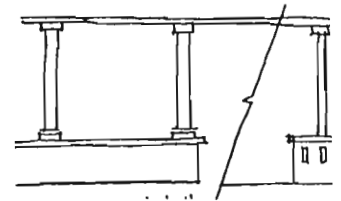
A stylistic change occurs in 1901, in the single storey house designed by Street-Wilson, for G. Johnston Esquire, (Fig 3.59) the usual timber columns give way to battered stone walls with moulded bracket supports to the verandah roof.



The pre-cast concrete Tuscan column is first introduced in 1909, (Fig 3.72) in the double storey house designed by Street-Wilson and Paton for J.C. Kemp in Eastbourne Road. It is used in conjunction with a timber balustrading. Two years later, in 1911, in the house designed for T.M. Allin in Cato Road (Fig 3.73), the precast column was used with a brick, parapet wall instead of a timber balustrade and was used as a feature until the last example in the drawing collection (Fig 3.76, 1913). The introduction of the pre-cast concrete Tuscan column happens at the time of the Union Period (c 1910) and can be seen as a characteristic which typifies the Period. The pre-cast concrete Tuscan column makes its first appearance in the single storey house in 1913 (Fig 3.75). Timber verandah detailing is common throughout examples of semi-detached houses.



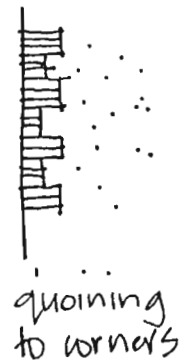
Verandah detail



WALLS

Facebrick walls are common throughout the house types, and are often used for the walling of only the front facade of the house (Fig 3.50, 1898). Plaster quoining to the building corners was used to resolve the junction between the facebrick front and plaster back walls. (Fig 3.67, 1904). Plaster walls were sometimes lined or marked with incised lines to give the appearance of stonework, known as ashlar jointing. (Fig 3.42, 1897).

Several of the Victorian villas are characterized by a combination of wall textures. Bands of rough cast plaster link windows together and provide a contrast to the red facebrick walls. (Fig 3.35, 1895). The texture of walls and the "mix of plaster and facebrick in external walls was used so as to heighten the irregular." (Kearney (Natalia):80), and was popular during the Arts and Crafts movement. "Shaw seems to have been the first architect to revive the use of rough-cast rendering in the suburban context in which it was later to proliferate." (Girouard 19:168).



quoining
to corners

Facebrick walling and a combination of facebrick and plaster work was used well into the twentieth century in all the house types. Different tones of brick patterning was used in the gable wall of the house designed for V.E. Hooper in 1904, in Essenwood Road (Fig 3.65). Hung tiles as a wall texture used in the gable ends at the house at 8 Newcombe Place (Fig 3.61, 1902) and V.E. Hooper's house (Fig 3.65, 1904). The all-plastered and painted house came with the introduction of the pivotal (Fig 3.71, 1905) and the 1900s square plan (Fig 3.66, 1904). With the change in plan and form in early 1900s, came new wall treatments. The end wall gable became all prominent. At this time, it was often patterned with tiles inlaid into plaster and punctured with openings to the incorporated verandah. (Fig 3.73, 1911). Corner buttresses are introduced in the house designed for J.G. Kemp¹. (Fig 3.72, 1909)

The Gable Wall

The gabled wall with the verandah, runs as a theme through out most of the designs of Street-Wilson and his partners, in both single, villa/double storey and the semi-detached house types.

Its form allows for two elements to be dealt with : the vertical element of the gable wall, contrasting with the horizontal element of the verandah. This allows for asymmetry in the design but still denotes the most important room of the house and the entrance door at the junction between gable and verandah. In these gable-verandah houses "The verandah's horizontal emphasis was counter-balanced by a gable or gables.. (and)... the main entrance is at the fulcrum and the principal room acknowledged from the street. This asymmetrical type has interesting 'picturesque' ancestors and continued the 'plastic' irregularity of the small villa conceived as an appropriate foil to the natural environment." (Kearney 1984:77)



1: Similar detailing is evident in Voysey's and Baillie Scott's domestic architecture. (See Chapter 1 on Arts and Crafts).

The single storey house signed for J.Q. Coventon in 1896 in Currie Road, Berea and the double storey house designed for Crawford Lindsay on Ridge Road in 1901 (Fig 3.57) are two of the many examples of gable-houses designed by Street-Wilson and his partners.

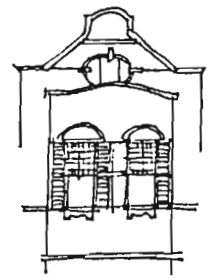
The evolution of the gable can be traced from the typical gable verandah houses, for example, the single storey house designed for J.Q. Coventon in 1896 in Currie Road, Berea (Fig 3.37), the double storey house designed for Crawford Lindsay on Ridge Road in 1901 (Fig 3.57) and the semi-detached house (Fig 3.39, 1896), to the gable end house of the 1910s (Fig 3.73, 1911).

The gables were vertical elements and were visually prominent and provided surfaces which were receptive to decoration. Gables were often embellished and enhanced by elaborate classical detailing. Functional ventilators were classically detailed and the pediments to the gables, took on classical and sometimes Flemish style profiles. The gable usually came hand-in-hand with a bay window which added another dimension to the gable.

The gable, on occasions, is flush with the wall of the bay window.

TOWERS

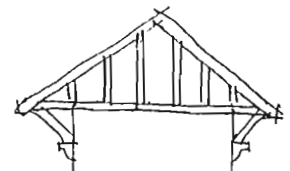
There are only three examples of towers in the drawing collection (Fig 3.45, 1898, Fig 3.51 1898, Fig 3.64, 1903 and Fig 3.26, 1893). The tower designed in 1893, is octagonal in plan with a corresponding pitched roof while the others are square in plan with pyramidal roofs. In Captain Reeves house (Fig 3.15, 1898) the tower is not a true tower as it does not project above the roof line of the main house. Instead, its corners are emphasized and it is roofed with a pyramidal roof. The tower is used as a design element which provides a strong visual impact to the overall design.



Gable detail



Gable detail



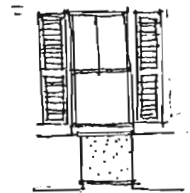
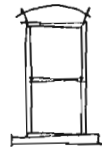
Tower detail

FENESTRATION

WINDOWS

Windows are usually double-hung sash windows¹, with the glazing in different configurations. The number of glass panes or "lights" vary. These range from two lights (top and bottom of the window) , to four lights (Fig 3.39, 1896) (two top and bottom), to the less common, twelve lights (Fig 3.40, 1896) (three top and bottom). There are then variations as to the number of lights to the upper section of the sash window which include three (Fig 3.13, 1891), to four lights (Fig 3.40, 1896) or six (Fig 3.35, 1895), or eight lights (Fig 3.26, 1893). These are occasionally combined with two lights to the bottom of the window (Fig 3.13, 1896).

According to Stefan Muthesius, "...just at the point when larger panes could be afforded by all, the Gothic and Domestic Revivalists began to dislike them, as they wanted more 'cosiness' inside the house, and therefore reintroduced small frames and in some cases the old-fashioned casement frame. Late Victorian and Edwardian windows are usually a compromise between a cheerful outlook (the large panes of the lower half) and cosy enclosure (the small panes of the upper half)." (Muthesius, S. 1982:50).



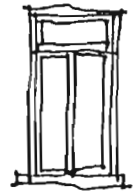
1: With reference to the origin of the sash window, Summerson in "Georgian London" states that "It was about this time (1707/1709) that the great change-over from casement to sash took place. The sash, a Dutch invention, had been known for many years but its popularity only dates back from Queen Anne's time." (Summerson 1969:40) The sash window was a commonly used feature during the Arts and Crafts movement.

"Characteristic of sash windows from the later Victorian period onwards are the 'horns', small projections from the upper and lower end of the sash frames respectively; their function is partly to strengthen the construction of the frame, partly to ensure a gap at the bottom or the top of the window when the frames are fully pushed up or down respectively." (S. Muthesius 1982:51).

The casement window is first introduced in the semi-detached house in St George's Street (Fig 3.41, 1896) but only later on 1901 as part of the bay window (Fig 3.59, 1901) and as the ordinary windows in D. Don's house in Ridge Road (Fig 3.64, 1903). Both the casement and the bay are seen in examples in the 1900s. The first example of the drawing collection, shows full length, casement window/doors to all the rooms which lead out to the verandah (Fig 3.3, 1889).

The surrounds of sash window were treated differently in the various designs. In villas designed during the Victorian Era, the window was treated in a decorative manner. Often it was surrounded by classical plaster mouldings with fanned mouldings to its head, quoining to its side and plaster rendered cills (Fig 3.40, 1896). Windows were often grouped together by an area of rough cast plaster which contrasted with the red facebrick and helped to unify the elevations, or they were paired with a common cill (Fig 3.51, 1898). The windows of single storey houses were left undecorated with a simple plaster cill. On the whole, by 1900, windows became stripped of any elaborate decoration.

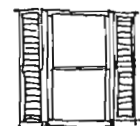
Shutters were frequently used in conjunction with the windows and provided "protection from the light and the heat of the sun, prying eyes and intruders...The use of shutters also permits windows to be opened in circumstances when rain would normally enter the house." (Evans 1979:79). Shutters were still used right up until 1911 (Fig 3.73) and were found on windows to both the ground and first floors.



casements



sash



Dormer windows (Fig 3.13, 1896, Fig 3.45, 1898) and attic windows (Fig 3.19, 1893) are **recurring** features which add another dimension to the **roofscape** as well as providing additional light to rooms positioned within the roof.

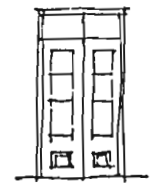
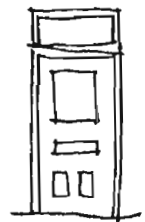


Large stained glass windows lit the grand staircases in late Victorian villas (Fig 3.40, 1896) and also the stair wells of the earlier Edwardian villas (Fig 3.65, 1904).

The character of the bay window changes with the use of the different window types. The vertical, double hung sash is commonly used in conjunction with the bay until the example in 1901 (Fig 3.59) where the casement is used. The use of the splayed bay-window and the square bay and corner bay window, typifies the Victorian era. From 1900 onwards, the square bay used both on its own or as a corner bay is a common feature. The wood-and-iron house designed in 1902 (Fig 3.62) is the only example where the square bay is not employed after 1900. This enhances the stylistic differences between the Victorian and Edwardian/Union period by giving the latter period a more uncluttered, more streamlined appearance and vice-versa.

DOORS

The treatment of the front door defined the character of the house. Most often used, is the simple, panelled door with either half glass or glass lights and a fanlight above the door (Fig 3.50, 1898). This same door is frequently combined with side lights (Fig 3.60, 1902). A pair of doors with fanlight was sometimes used as the front door (Fig 3.54, 1899), also found combined with side lights (Fig 3.61, 1902). The front door is treated similarly throughout the period covered by the drawing collection showing no definite stylistic trend.



Summary

The Villa

As with the plan and the form, stylistic changes are evident in the drawing collection. The first, during the Victorian era, can be described as the "Queen Anne Revival" period and is applicable to the villas designed from 1893 to 1900. "The essence of the style was to **combine** dormers, bays, verandas, and roof into a chic and cheerful whole." (Girouard 1977:189). Walls are textured with facebrick and plaster **work** and contrasted with white painted verandahs, roofs are embellished with cresting, finials, balustrading and ventilators and windows are embellished with classical motifs. The "**period** is characterised by the development of the interplay between the verandah **as** a shelter and design device, and the forms and motifs of other architectural ideas." (Kearney 1992:xi).

The adoption of Renaissance motifs in the free Classical style is typical of Norman Shaw's designs in Ellerdale Road and 31 Melbury Road (1875-77). (See Chapter 1 on Arts and Crafts).

With the turn-of-the-century, detailing became more simplified with "a new interest in solidity and firmness", (Kearney [Rewarding Conservation] 1992:xiv) which typified the Edwardian period. Elements of the Arts and Crafts movement and the less formal and less derivative style of work of architects Voysey and Baillie Scott, appear in the detailing. Tiled roofs replace the corrugated-iron roofs of the Victorian Era, the flared or extended roof line is introduced, facebrick walls give way to plastered **and** painted walls, there is evidence of tile-hanging, of dominant gable-end walls and restrained verandah detailing.

By 1910, the beginning of the Union style, the roof is reduced to a simple pitched roofs with gable ends, the front verandah reduced to a front porch, the early timber posts replaced by prefabricated concrete columns and both casement and sash windows are used but devoid of any superfluous decoration.

The Single Storey House

The detailing of the single storey house was restrained, simple and consistent throughout the Victorian era. Only **five single** storey houses are found in the drawing collection after 1900, and these show similar stylistic trends to those of the villa and double storey houses.

The Semi-detached House.

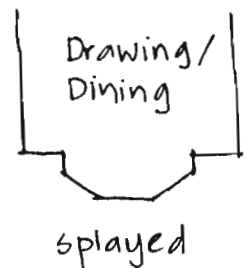
The detailing of the semi-detached house was as elaborate as that of the villas but was more in keeping with the single storey detailing and also showed similar stylistic trends to those of the villa and double storey houses.

5.2 THE BAY WINDOW

THE PLAN

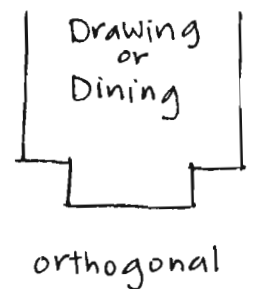
The splayed bay window is most frequently used prior to 1900, making it a typically Victorian feature. It is used in association with the drawing, **dining** and the main bedroom and found in examples ranging from small houses, to semi-detached houses, to villas.

Fig 3.2, 1889 Fig 3.18, 1892 Fig 3.35, 1895
Fig 3.59, 1902 Fig 3.4, 1890 Fig 3.23, 1893
Fig 3.40, 1896 Fig 3.60, 1902 Fig 3.10, 1891
Fig 3.25, 1893 Fig 3.41, 1896 Fig 3.12, 1891
Fig 3.29, 1894 Fig 3.36, 1897 Fig 3.50, 1898
Fig 3.16, 1892 Fig 3.37, 1896 Fig 3.56, 1900



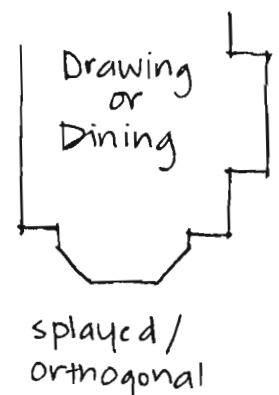
The orthogonal bay window is a feature found more in the Edwardian and Union period house examples and in villas and semi-detached houses. Only two single storey examples have orthogonal bays (Fig 3.47, 1898, and Fig 3.59, 1901).

Fig 3.67, 1904 Fig 3.39, 1896 Fig 3.72, 1909
Fig 3.48, 1898 Fig 3.74, 1912 Fig 3.58, 1901
Fig 3.66, 1904 Fig 3.71, 1905



The splayed bay window found in combination with the orthogonal bay window is also a typical Victorian feature found only in examples in the 1890s.

Fig 3.34, 1895
Fig 3.13, 1896
Fig 3.45, 1898



The corner orthogonal bay window, which is used to address the two sided verandah situation, is found combined with the orthodoxy bay window in examples both before and after 1900.

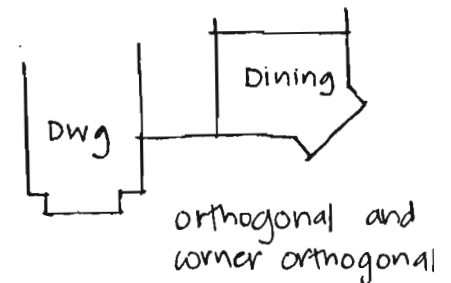
Fig 3.61, 1902

Fig 3.59, 1901

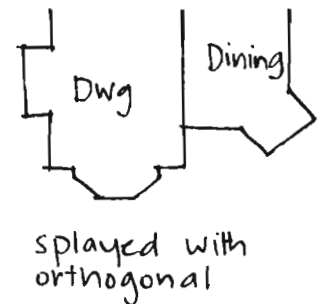
Fig 3.47, 1898

Fig 3.51, 1898

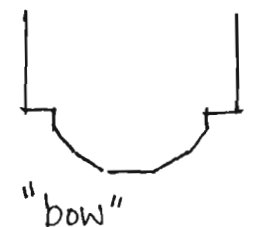
Fig 3.57, 1901



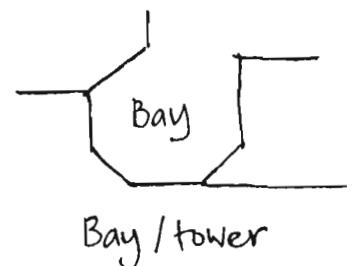
Only (Fig 3.33, 1895) is an example of the splayed bay used with a corner orthodoxy bay and there is only one example of the three-sided splayed bay window (Fig 3.38, 1896).



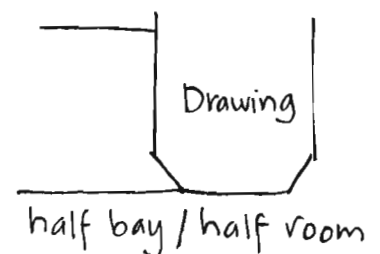
The rounded bay or the "bow" window, which in two examples (Fig 3.55, 1900, and Fig 3.75, 1913) has seven facets to the bay, is found only in the twentieth century.



There are a few examples of variation on the theme of the bay. The one is H. Rutherford's villa in Davenport Road, (Fig 3.26, 1893) which has a faceted bay which leads off the drawing room on the ground floor and the main bedroom on the first floor. The bay extends above the roof-line as a tower. This tower-bay is used in combination with a splayed bay window.



The other variation is the half bay/half room where the room is projected into the verandah space with splayed corners. (Fig 3.19, 1893 and Fig 3.25, 1893) are examples of these.



The absence of the bay-window is associated with the smaller cottages and also with the change in stylistic trends of the Union period. The first house in the drawing collection (Fig 3.3, 1889), two cottages, one for Mr Rickards at South Coast Junction (Fig 3.17, 1892) and the other for Lady Binns in Berea (Fig 3.54, 1899), and the existing school which was converted into a new house (Fig 3.33, 1898) have no bay windows. Two Union style houses at the end of the collection are also without bay windows (Fig 3.76, 1913 and Fig 3.73, 1911). There are two semi-detached house example which have no bay (Fig 3.11, 1891 and Fig 3.63, 1903).

THE FORM

In its three dimensional state, the bay window provides modulation to the walls. It presents itself in three different situations.

When dealing with both the single storey houses and the villa/double storey houses, the single height bay is mainly found in the Victorian era, with a few examples into the 1900s. There are two situations in which the single height bay is found. The first is where the single height bay is exposed on the wall surface and the second is where it is positioned under the verandah.

Single Storey

There are three examples of the single height bay exposed (Fig 3.75, 1919, Fig 3.15, 1892, Fig 3.59, 1901) with many more single storey examples where the bay is under the verandah roof.

Fig 3.2, 1889	Fig 3.29, 1894
Fig 3.4, 1890	Fig 3.47, 1898
Fig 3.12, 1891	Fig 3.50, 1898
Fig 3.18, 1892	Fig 3.55, 1900
Fig 3.25, 1893	Fig 3.59, 1901
Fig 3.23, 1893	Fig 3.59, 1901
Fig 3.30, 1894	

There is one example where there is a combination of the bay exposed and the bay placed under the verandah in the single storey examples (Fig 3.37, 1896). (Fig 3.38), 1896 is an unusual example where there is an exposed bay and twin bay windows under one roof.

The Villa/Double Storey

The single-height, exposed bay window is not found in isolation but combination with the bay placed under the verandah. The double storey examples where this combination is found include (Fig 3.31, 1894, Fig 3.36, 1896, Fig 3.57, 1901).

There are several examples of the single-height bay under the verandah.

Fig 3.37, 1896

Fig 3.40, 1896

Fig 3.48, 1898

Fig 3.64, 1903

The exposed, double-height bay window is a characteristic feature of the 1900s, with only one Victorian example (Fig 3.51 1898).

Fig 3.51, 1898

Fig 3.57, 1901

Fig 3.65, 1904

Fig 3.66, 1904

Fig 3.71, 1905

Fig 3.72, 1909

Fig 3.74, 1912 combined with under verandah bay window.

There are examples where the double-height bay window projects beyond the roof of the single storey verandah. The bay to (Fig 3.34, 1895) terminates as a roof dormer and the bay to (Fig 3.65, 1904) terminates as a gable.

Fig 3.10, 1891

Fig 3.25, 1893

Fig 3.26, 1893

Fig 3.67, 1904

Fig 3.33, 1895

Then there are examples of the double-height bay window roofed by the first floor verandah.

Fig 3.45, 1898

Fig 3.51 1898

Fig 3.35, 1895

Fig 3.40, 1896

Fig 3.61, 1902

The Semi-Detached House

There are two examples where the single-height bay window is under the verandah (Fig 3.46, 1898 and Fig 3.58, 1901).

The others are examples where the double-height bay window projects beyond the roof of the single storey verandah.

Fig 3.13, 1896

Fig 3.37, 1896

Fig 3.41, 1896

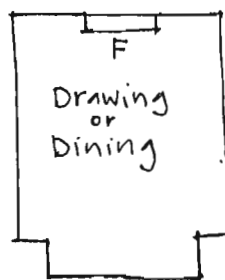
Fig 3.39, 1896

5.3 THE FIREPLACE

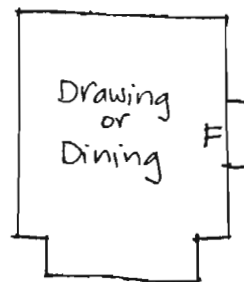
Only the principal rooms, such as the living room/drawing room, the dining room and occasionally the main bedroom, were graced with the presence of the fireplace. Fireplaces were found in various configurations and positions within the principal rooms. Whether lit or not, the fireplace provided the focal point to the room.

In cold climates the fireplace is best positioned on an internal wall where there is less likely to be heat loss to the outside. Several examples are found where the fireplace is located **on the external wall**. With warm temperatures throughout winter in Durban, **excessive** heat loss would not have been a problem. Fireplaces were probably lit occasionally in Durban more for providing a "special atmosphere that an open fire adds to home life or social gatherings", (Evans 1979:82) than as a heat source.

As a general rule the hearth was placed centrally on either the long or short wall of the principal room. It was either built as a projected hearth (Fig 3.59, 1901) when situated on an internal wall, or, when positioned on a external it was expressed as an external form. (Fig 3.4, 1890, Fig 3.19, 1893 and Fig 3.35, 1895)



Fireplace on Internal wall



Fireplace on external wall

Most commonly, the fireplace was placed centrally on the long side of the room with the bay or view-window at right angles to it. The position of the fireplace relative to view always provides conflict as the fireplace provides a introverted focus at night where as in the day the external view is favoured. Such a position, at least affords a view from some of the living room furniture.

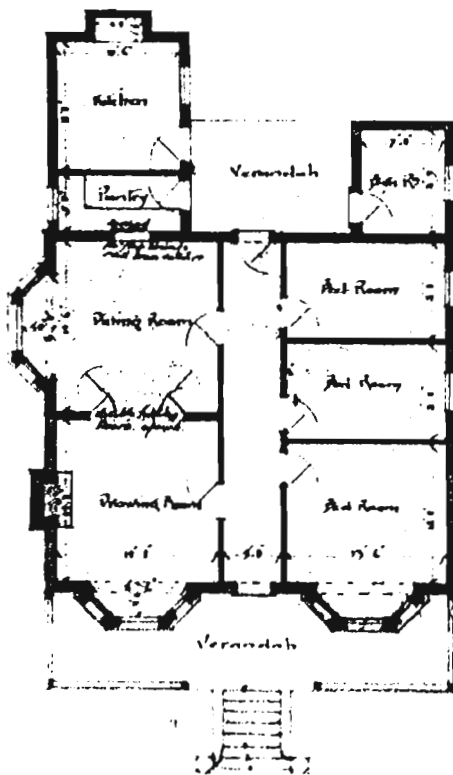


Fig 3.4
1890

Examples

Fig 3.4, 1890 Fig 3.12, 1891 Fig 3.45, 1898
 Fig 3.48, 1898 Fig 3.25, 1893 Fig 3.46, 1898
 Fig 3.66, 1904 Fig 3.47, 1898 Fig 3.67, 1904
 Fig 3.40, 1896

The fireplace was also commonly positioned on the short, internal wall opposite to the bay or view window. According to Jonathan Kerr in a "Gentleman's House" "the fireplace, in ordinary cases, is best situated in the middle of the one side, and opposite the windows." (Kerr 1871:110). In this configuration, the fireplace often backed onto another fireplace found in the adjoining room.

Examples

Fig 3.16, 1892 Fig 3.56, 1900
 Fig 3.15, 1892 Fig 3.59, 1901
 Fig 3.23, 1893 Fig 3.65, 1904
 Fig 3.26, 1893 Fig 3.71, 1905
 Fig 3.61, 1902

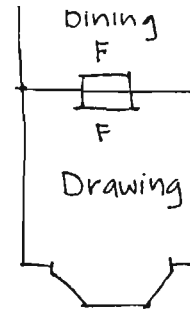


Fig 3.16
1892

There are examples of the fireplaces positioned back-to-back along the long wall of the room.

Examples

Fig 3.33, 1895
 Fig 3.51 1898
 Fig 3.54, 1899 (in the hall/dining configuration).

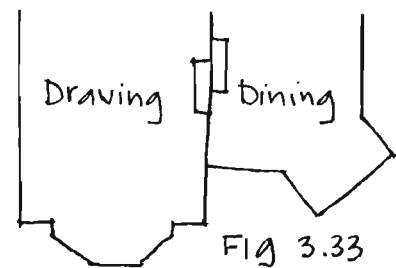


Fig 3.33
1895

Single fireplace facing the bay window.

Examples

Fig 3.34, 1895
 Fig 3.55, 1900
 Fig 3.12, 1891
 Fig 3.64, 1903

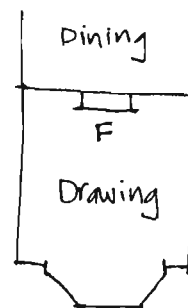


Fig 3.34
1895

There are examples of the use of the inglenook, which was a bay area in which the fireplace was situated.

Fig 3.35, 1895

Fig 3.45, 1898

Fig 3.57, 1901

Fig 3.72, 1909

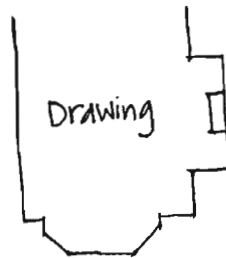


Fig 3.35
1895

There are a few unusual configurations. These included (Fig 3.57, 1901 and Fig 3.61, 1902) with the fireplace positioned on the centre of the long wall of the room, at right angles to corner bay window and (Fig 3.65, 1904) with the fireplace positioned on the centre of the short wall next to the bay window.

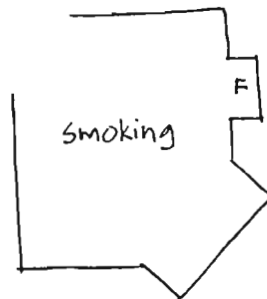


Fig 3.65
1904

(Fig 3.71, 1905 and Fig 3.72, 1909) are examples of fireplaces positioned in the corner of the room.



Fig 3.71
1905

Several examples have no fireplace. These are mostly single storey houses with two semi-detached houses and one villa being the exceptions.

Examples

Fig 3.11, 1891 Fig 3.37, 1896 Fig 3.62, 1902
Fig 3.2, 1889 Fig 3.38, 1896 Fig 3.76, 1913
Fig 3.17, 1892 Fig 3.44, 1897 Fig 3.30, 1894
Fig 3.75, 1913

Semi-detached :

Fig 3.58, 1901
Fig 3.63, 1903

Villa

Fig 3.74, 1912

Summary

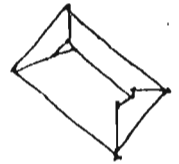
With the fact that a fire is not necessary as a heating source in Durban, a fireplace became a luxury and was used to express status. As a result, many of the modest, typical single storey houses were without fireplaces. Other contributing factors could have been that, should a household not have a servant, laying and cleaning the fireplace was an arduous job, space to store wood would have been scarce and there was not only the expense of construction of the fireplace but also the expense of lighting fires.

All villa/double storey houses had fireplaces until 1912. There are no examples of fireplaces in the double storey houses after 1912. The demise of the fireplace could be attributed to the **introduction** of electricity and electric heaters but more possibly **to changing social attitudes** and the realisation that the fireplace was **not a necessity in** Durban climatically or socially for status. Omitting the fireplace would have saved extra costs in times where costs were kept to a minimum.

5.4 THE ROOF

Main Roof Type

The ventilated, hipped roof form, running laterally across the house is used most consistently **through** the house forms, until its last appearance in (Fig 3.71, 1905). It is primarily a roof form associated with the Victorian period. It is seen used in houses with both corrugated iron and tiles roofs and in both single, double storey/villa and semi-detached houses.



ventilated, hipped

There are several examples of the roof with gable ends with emphasis on the gable to the latter part of 1910s.

Fig 3.15, 1892

Fig 3.18, 1892

Fig 3.17, 1892

Fig 3.39, 1896

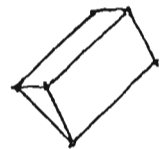
Fig 3.33, 1895

Fig 3.62, 1902

Fig 3.61, 1902

Fig 3.72, 1909

Fig 3.73, 1911



gable end

A combination of the hipped, ventilated roof and the gable roof is commonly used.

Fig 3.19, 1893

Fig 3.45, 1898

Fig 3.55, 1900

Fig 3.71, 1905

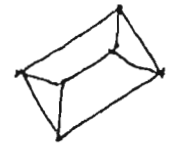
The hipped roof is typical of the early Edwardian (1900-1909) and Union (1910 onwards) periods with no examples prior to 1900.

Fig 3.60, 1902

Fig 3.57, 1901

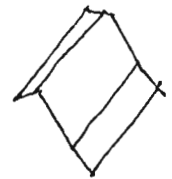
Fig 3.58, 1901

Fig 3.59, 1901



hipped

The "extended roof line" or the "flared roof" is seen in examples (Fig 3.71, 1905, in Mentone Road and Fig 3.72, 1909 in Eastbourne Road) which were both designed for J.G. Kemp.



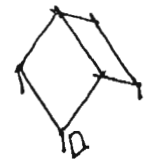
flared roof

A typical feature found in examples in 1912 and 1913, is the front verandah incorporated under the main roof of the house.

Fig 3.74, 1912

Fig 3.75, 1913

Fig 3.76, 1913



verandah
incorporated

Pyramidal type roof forms are typical of the 1890s during the Street-Wilson and Fyfe partnership. A ventilator terminates the roof on the Reid Cochrane house (Fig 3.33, 1895) and on A. Findlay's house (Fig 3.34, 1895). The roof to Chiazzari's house (Fig 3.51 1898) is a truncated pyramid with a widow's walk to the former and ventilators to the latter. Much later, a pyramidal roof is a feature of the house designed in Musgrave Road (Fig 3.66, 1904).



pyramidal

The Lean-to Roof

The lean-to roof in the single storey house, is handled in a number of ways through out the drawing collection. The lean-to as a continuation of the main roof is the most common treatment and the most straight forward resolution to roofing the back section of the house. (Fig 3.50, 1898)

Other methods result in awkward junctions. The house example (Fig 3.2, 1889) shows the back rooms of the house roofed by three separate roofs. Here the roofs pitch towards the central back verandah roof.

Example (Fig 3.25, 1893) shows the two side roofs pitched away from the central back verandah roof.

(Fig 3.56, 1900) one section of the roof which leans away from the back verandah becomes part of the side verandah.

(Fig 3.4, 1890) the kitchen area is under a pitched roof which marries into the main roof, the remainder of the back rooms under a lean-to roof.

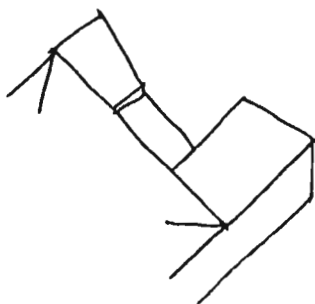


Fig 3.2
1889

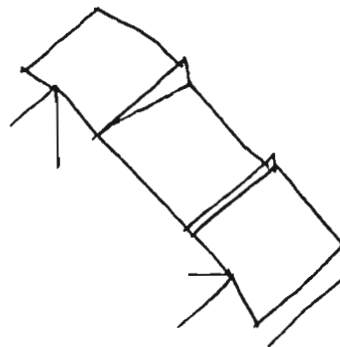


Fig 3.25
1893

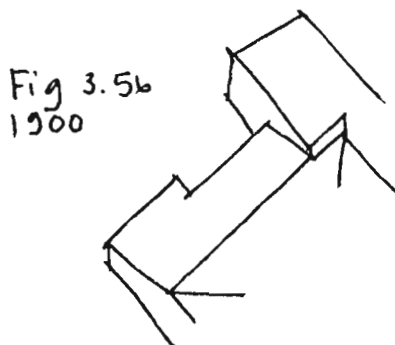


Fig 3.56
1900

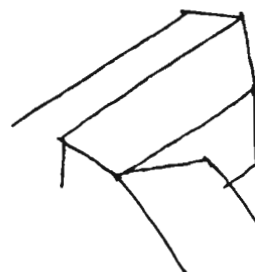


Fig 3.4
1890

The Verandah Roof

The verandah roof to the single storey house is either an extension of the main roof (Fig 3.16, 1892) or it is separated from the main roof and is expressed as an articulated roof (Fig 3.19, 1893).

The same applies to the villa/double storey house and semi-detached house when there is a two storey verandah. (Fig 3.40, 1896) is an example of an articulated roof and (Fig 3.51 1898) an example of an extension of the main roof.

A curved or "bell-shaped" profile to the verandah is expressed in (Fig 3.19, 1893) and a concave profile to (Fig 3.60, 1902).

The "cat slide" verandah is used to link the upper verandah to the ground floor verandah. It is feature found more often in the Victorian villa with one example in 1909 (Fig 3.72).

Fig 3.40, 1896

Fig 3.48, 1898

Fig 3.51, 1898

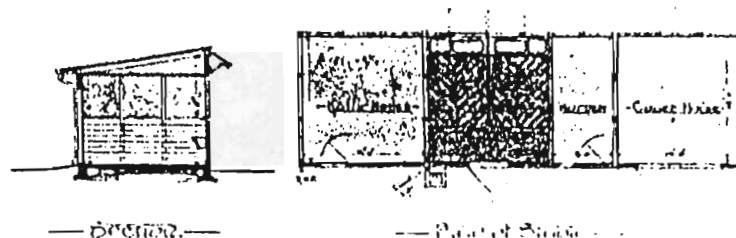
Fig 3.67, 1904

Fig 3.72, 1909 the eaves are tipped upwards

5.5 THE OUTBUILDINGS

Outbuildings and Stables

The outbuildings were positioned well away from the main house, usually along the back boundary line which backed onto a service lane. The outbuildings shown on drawings of single storey houses (Fig 5.7) usually comprised of a stable, a domestic's room, labelled "kaffirs", and a shed or store. These outbuildings were treated as simple sheds with a low pitched monopitch roof and often constructed in wood-and-iron.



(Fig 3.57, 1901)

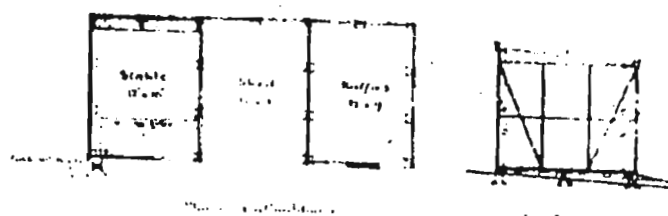


Fig 5.7 Outbuildings to Single Storey House (Fig 3.56, 1900)

The outbuildings of villas included the stables, the design of which was usually based on a typical English layout. Muthesius described the layout of a model stable for twelve horses (Fig 5.8) which was sourced from a catalogue for building stables produced by the firm Musgrave & Co., Belfast : "...the basic form of the English stable complex may also be that of a group of buildings surrounding a courtyard. ...one side of the courtyard is enclosed by a wall and left free of the buildings, to allow for proper ventilation." (Muthesius, H. 1979:103).

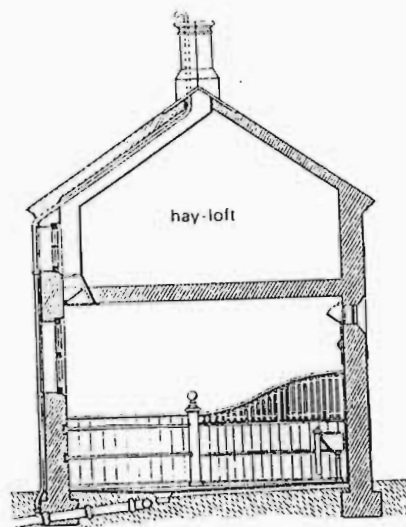
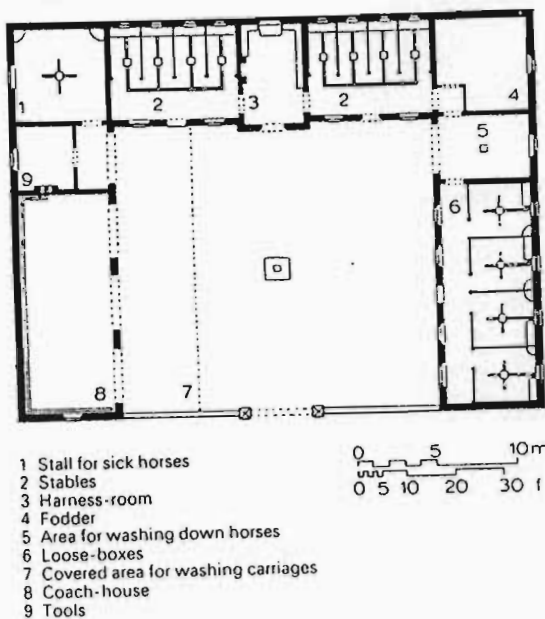
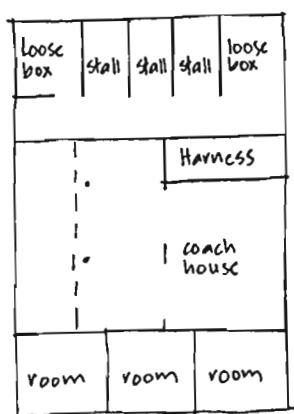


Fig 5.8

*Plan of model stable
 for twelve horses
 (after Musgrave)*

*Section through Stable showing
 Ventilation and Drainage
 (after Musgrave)*

Similar to the typical stable plan by Musgrave, the stables for W. Wood in Ridge Road, 1898, (Fig 5.9 and 5.10) form a "U"-shape around a courtyard. The coach house, the stalls and loose boxes were roofed under a ventilated, hipped roof with a ridge ventilator over the stalls forming an "L" shape. The third side of the "U" was comprised of three sundry rooms roofed under a lean-to roof. The section through the stalls is almost identical to that of the section for ventilation and drainage of a stable (after Musgrave).



Ground Floor Plan

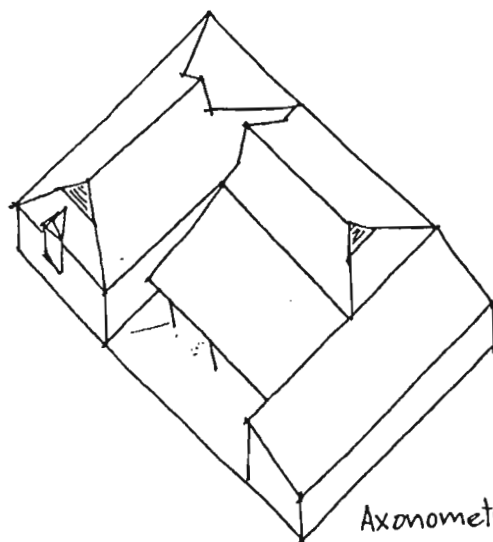


Fig 5.9 The Stables for W. Wood in Ridge Road (Fig 3.45, 1898)

PROPOSED NEW STABLES RIDGE ROAD BEREA

FOR WILLIAM WOOD ESQ.

Scale 8 Feet to an Inch

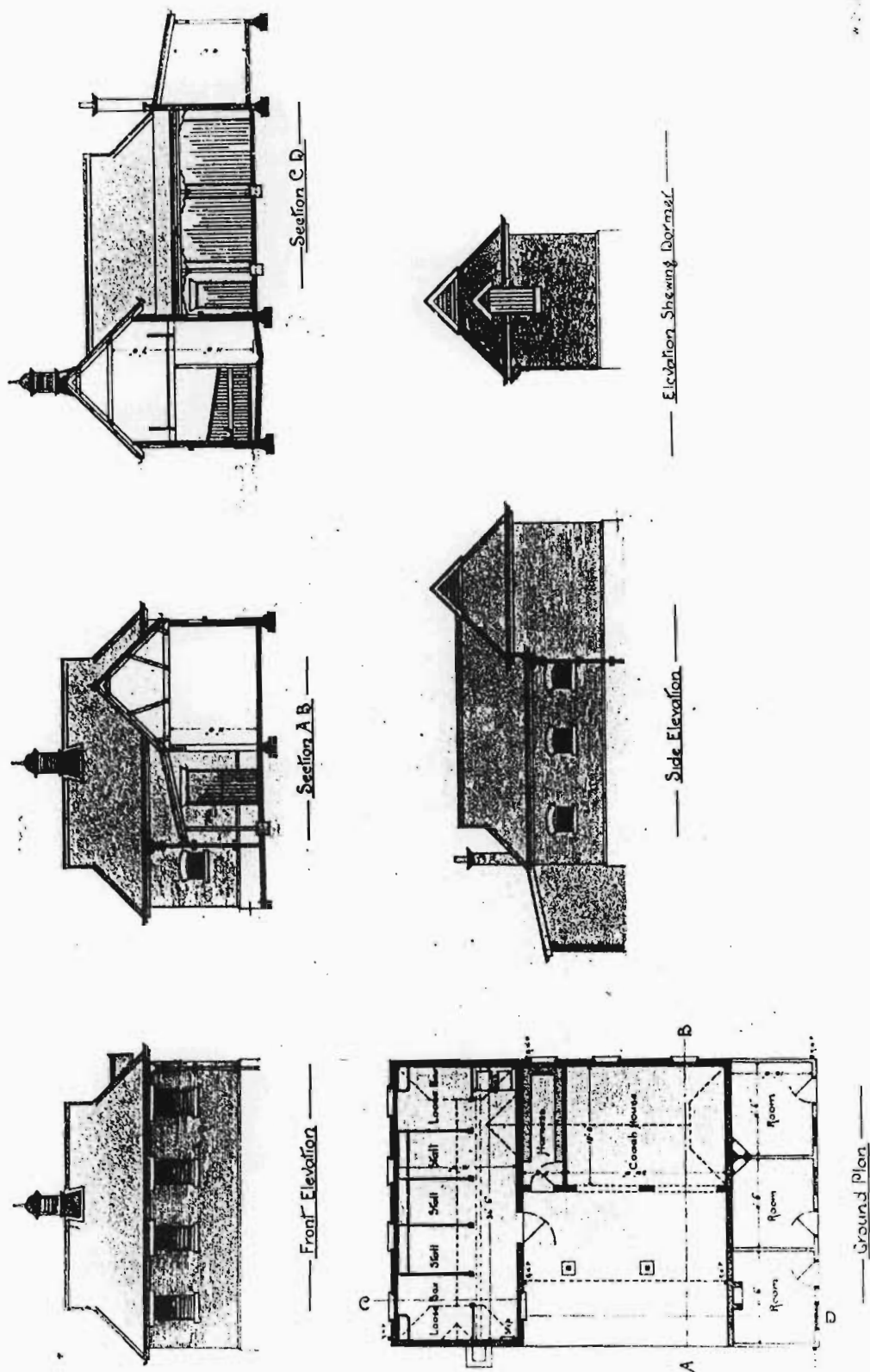
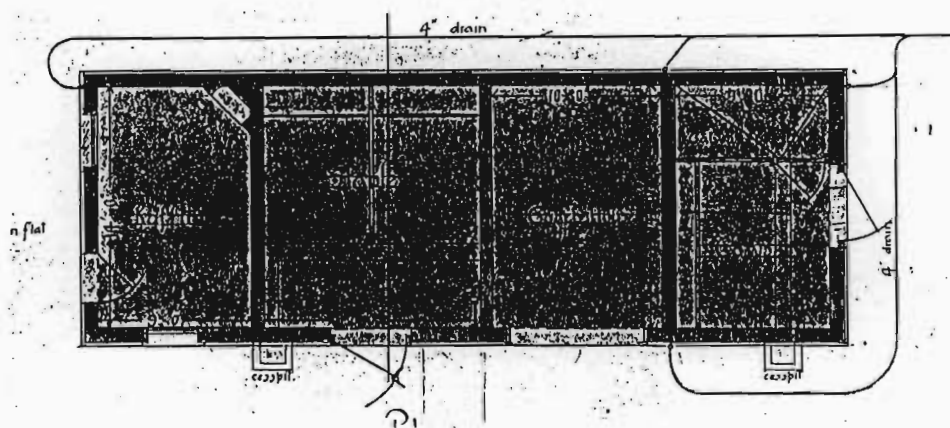


Fig 5.10
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(Fig 3.45
1898)

Great attention to the form and detailing was paid to the larger stable outbuildings. In the villa designed for A. Findlay in 1895, the outbuilding (Fig 5.11) includes a coach house, a stable room, a kaffir room and cow shed. In the design, the middle section, comprising the stable and the coach house, of the building was roofed under a pitched roof with a central roof ventilator and a lean-to roof covered the domestic's room and an open-sided cow shed. The walls are rendered with rough plaster and quoining to the window and door openings and to the corners of the building, all within keeping of the main house.



Proposed Stables for A. Findlay. Plan. (Fig 3.34, 1895)

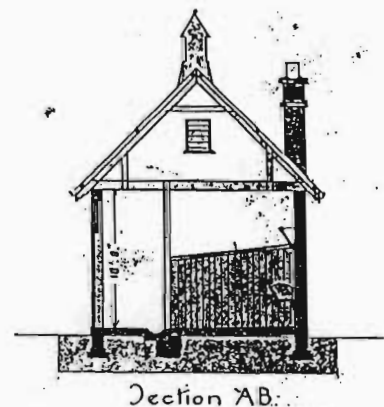
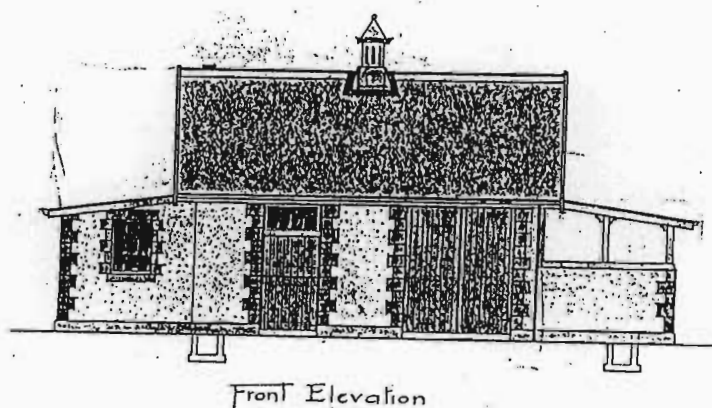


Fig 5.11 Proposed Stables for A. Findlay. (Fig 3.34, 1895)
Elevation and Section

The Privy/Toilet

Several terms have been given to the toilet such as the "necessary", and the "accommodation". "The universal pre-WC type of toilet was the 'privy', which usually meant privy-midden..... The 'midden' was, in fact a cesspit, placed more or less under the toilet." (Muthesius, S. 1982:57). (See Chapter 8 on Services)

The outdoor privy, which was sometimes labelled W.C. (Fig 3.38, 1896), and was usually positioned on the rear boundary or close to it. The position of the toilet, well away from the house, was due to lack of technical sophistication, as water-borne sewerage was not available, due to bye-law stipulations and "partly because it infringed the gentility of gracious living." (Hindson 1987:115).

Its position close to the boundary also allowed access by the "night soil men" from the Municipality, via the service lane, to collect night soil (Fig 3.56, 1900).

The Building Bye-Laws of 1903, which are the amended bye-laws of 1894, state that the privy be positioned ten feet (3.05m) from the dwelling house and that it be "substantially built of brick, or of iron framed with wood, and it shall be not less than five feet (1.52m) by three feet, six inches (1.062m) inside measurement, nor less than six feet, six inches (1.982m) in height." (N.G.G. 1903:1681). The floor finishes specified were to allow for easy cleansing and "a sufficient opening for ventilation, as near to the top as practical, and communicating directly with the external air", was specified. (N.G.G. 1903:1681).

The design of a typical privy (although labelled "W.C.") seen in (Fig 5.12) is in accordance with the Amended Building Bye-laws of 1903. It is constructed of wood-and-iron with a shallow monopitch roof a common construction for most privies. Its dimensions are 6'0" x 3'6" and height at the highest point 10'0" and 9'0" at the lowest.

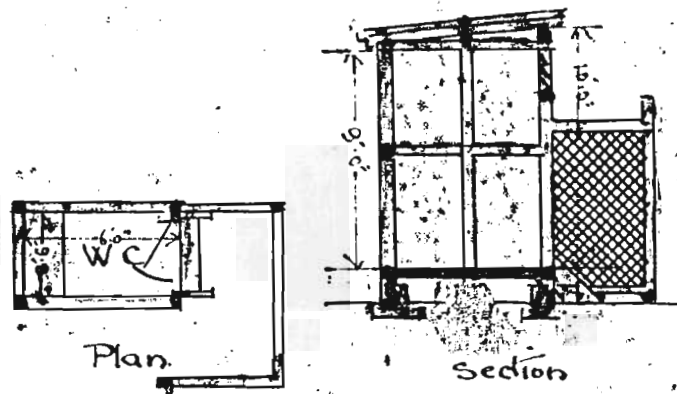
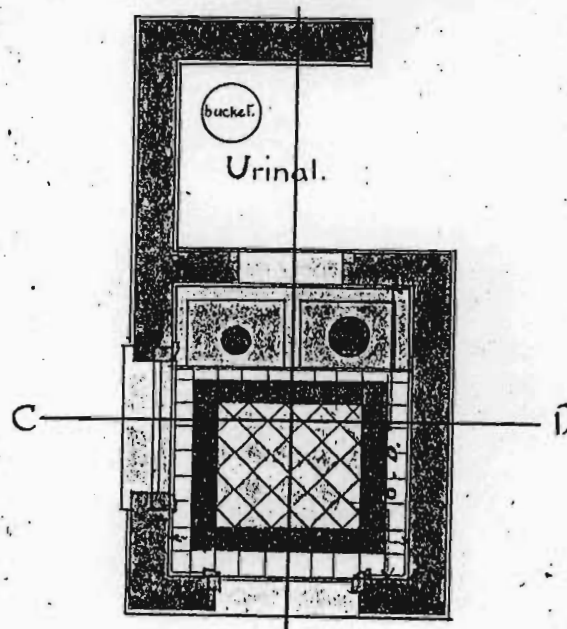


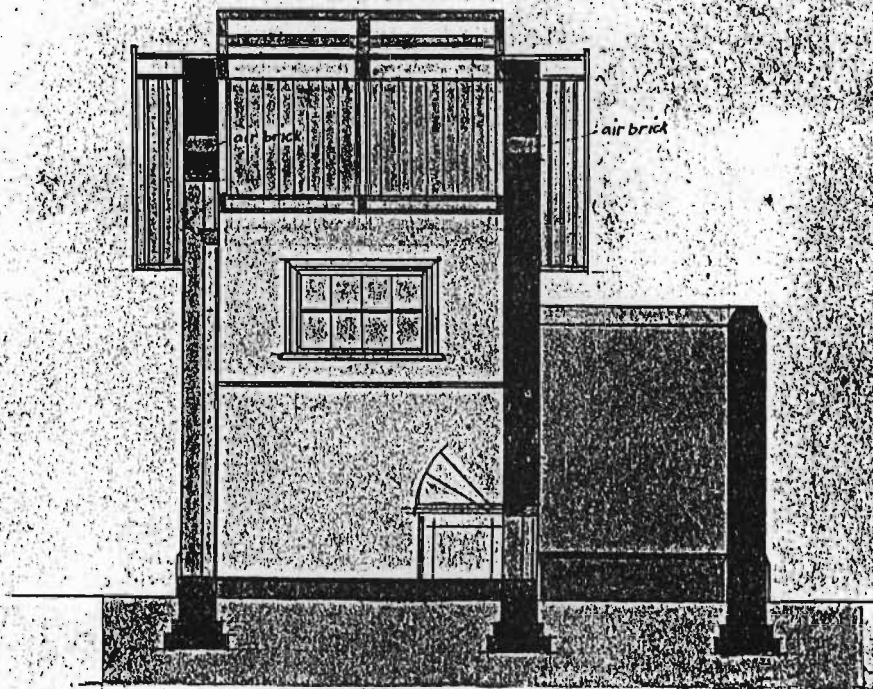
Fig 5.12 The W.C. (Fig 3.38, 1896)

The outdoor W.C. for W. Wood's villa in Ridge Road (Fig 5.13) is elaborately designed out of facebrick with an encaustic tile floor design, a ventilating ridge, a window and perforated brickwork for extra ventilation. To the back of the W.C. is a urinal, with bucket, screened off by a wall. Again it is designed in accordance with the Amended Building Bye-law of 1903.

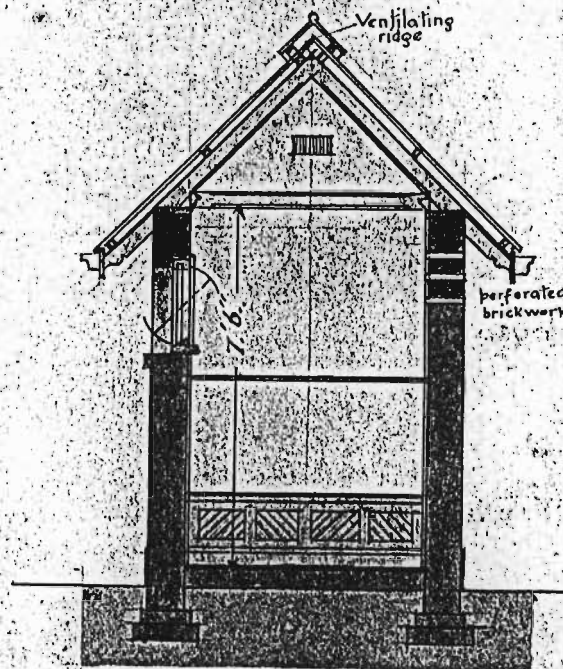


(Fig 5.13, 1896)

Plan of W.C.



Section A.B.



Section C.D.

Fig 5.13 *The W.C.* (3.45, 1898)
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LIST OF ILLUSTRATIONS

All free-hand sketches by the author

Abbreviations

P.M. : Pictorial Mercury

U.N. : University of Natal, the Barrie Biermann architectural library

Fig 5.1 : Chiazzari's villa. (1896)	OD 549 (U.N.)
Fig 5.2 : Princes Street. (1902)	OD 602 (U.N.)
Fig 5.3 : Drawing detail of front railing. (1898)	OD 621 (U.N.)
Fig 5.4 : "Kinnoul" designed for W. Wood	P.M. May 8, 1907
Fig 5.5 : "The Maze" designed for D.Don. (1903)	P.M. April 24, 1907
Fig 5.6 : Perspective for J.W. Wood, (1896)	OD 632 (U.N.)
Fig 5.7 : Outbuildings to Single Storey House. (1900)	OD 550 (U.N.)
Fig 5.8 : Model Stable (after Musgrave)	(Muthesius, H 1979:103)
Fig 5.9 : The Stables for W.Wood. (1898)	Author
Fig 5.10 : New Stables, Ridge Road. W. Wood. (1898)	OD 629 (U.N.)
Fig 5.11 : Proposed Stables for A. Findlay. (1895)	OD 533 (U.N.)
Fig 5.12 : The W.C. (1896)	OD 591 (U.N.)
Fig 5.13 : The W.C., 1898 for W. Wood. (1898)	OD 623 (U.N.)

CHAPTER 6

THE VERANDAH

The verandah is a common thread throughout the domestic architecture of William Street-Wilson and his partners, and it is of interest to look at its possible origins for the different house types.

6.1 The Verandah and its Origins.

The Reader's Digest Universal Dictionary defines the Veranda "...Hindi, from Portuguese, from 'varare', to surround with poles, from 'vara' pole...." (Drew 1992:227). The spelling "verandah" adopted in this dissertation is taken from the original drawings in the drawing collection.

Vasco Da Gama, an early Portuguese explorer, makes early reference to the verandah (em huma varanda) in his visit to the city of Calicut, in India, showing "that veranda was originally a Portuguese word, ..." (Drew 1992:2). The verandah, located inside the courtyard of a house, was a feature found both in the Arab quarter of Calicut and in the Middle East. (Drew 1992:2). "The veranda moved to the outside of the dwelling in India in the two centuries after the visit of Vasco da Gama." (Drew 1992:5).

6.2 The Verandah and its Functions.

The verandah (Fig 6.1) acted as a climatic modifier to the warm to hot, humid conditions of summer in a tropical climate. It defended the house from the natural elements. It protected the perimeter walling of the house from prevailing weather, particularly from driving rain so that vulnerable timber details, such as doors and windows, would be kept dry during rain storms. It reduced both the amount of glare coming into the house via the windows by providing a shadow area directly outside the windows, and the amount of solar radiation falling directly into the window openings. In c1903, the Natal architect, C. W. Methven, confirms this in his article on domestic architecture in Natal : "But here (in Natal) we have rather to guard against too much sun and heat, and with the assistance in these respects, which we are able to obtain by the use of the verandah." (Methven c1903:92). Heat build-up and heat transmission through the walls due to sunlight falling directly on the wall was prevented by the use of the verandah.

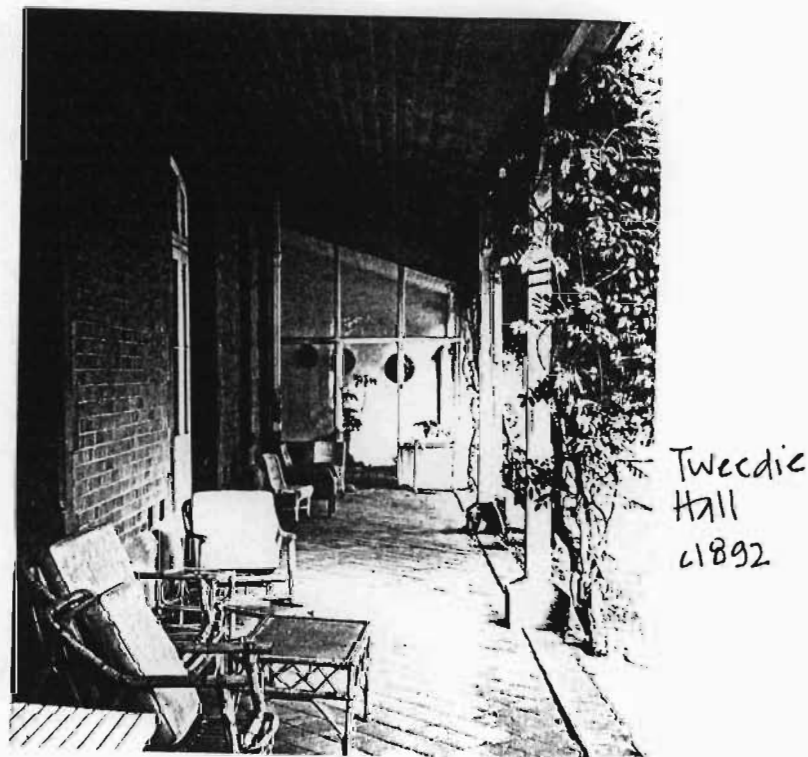


Fig 6.1 (Appendix 5.1)
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The verandah also contributed to efficient cross circulation through the house. The shaded areas around the house, achieved by the verandah, created areas of cool air. When the front and back doors were open, the cooled air was drawn from the front to the back verandah and through openings of the individual rooms, via the passage. The shaded spaces on the verandah itself are exposed to the cross breezes which provide comfortable areas in which to sit.

The verandah also allowed the house to be positioned freely on the site without restrictions of orientation. These sentiments were expressed by Methven : "As regards the proper aspect for houses in this **country**, we are not, I think, so restricted as in England. In **Scotland**, for instance, we have to nurse every bit of sunlight we can get, and, in consequence, where-ever possible, the approach should be from the north and the public rooms should face south and West. But here we have rather to guard against too much sun and heat, and with the assistance in these respects, which we are able to obtain by the use of the verandah, we can, with due respect **to the power** of the afternoon sun, place our houses pretty well as we like, depending, of course, on the site and its prospect. ...we see all over our **residential suburbs**, that the dwellings face, or have their public rooms facing **every point of the** compass, the main influence being prospect and view." (Methven c 1903: 91/92).

When the number of verandahs is limited then Methven believed that "...under our conditions of climate, one of the most frequently used portions of the house is the verandah, and it is advisable, especially if this exists on one side only, as it often does, that it should not face the rainy or windy quarter." (Methven c 1903:92)

In the verdant, tropical setting of lush indigenous vegetation, the verandah acted as a "prospect-gallery which confronted the native landscape instead of shutting it out." (Evans 1992:68). From inside out, the verandah acted as a picture frame intensifying the view it framed. (Evans 1992:133). From the outside, the appearance of the house was improved and embellished by the use of the verandah.

The verandah was described by E.M. Forster in "Passage to India" as "cool, a place of retirement and mental equilibrium." Evans:1992:41. It was described by Herman Melville in 1856, a short story titled "Piazza" as ".....somehow combining the cosiness of in-doors with the freedom of outdoors..." (Evans 1992:131).

The verandah was conducive to many outdoor activities and to outdoor living and on occasions provided additional accommodation. "I have even seen a verandah so protected by wire-gauze that it could be used as a sleeping compartment on warm nights." (Methven c 1903:93). It provided a space for eating, working and sleeping. The back verandah was usually the service verandah and Kearney states : "verandahs could be used also as service areas for washing and drying, and the ventilation made them suitable for the location of the pre-electric charcoal refrigerator." (Kearney 1974:18). The back verandah was often enclosed with trellis-work or "treillage" which screened its contents from the outside and provided some security.

The verandah provided a transitional space between outdoors and indoors; it provided a space where visitors could be addressed without having to enter the house and as Evans says of the verandah : "There was a need in a rough-and-ready outdoors society for a place family members, whose attire frequently rendered their presence indoor unwelcome, could foregather and share meals." (Evans 1992:43).

6.3 The Single Storey Verandah House.

Definition

Radford defines the early verandah house in South Africa as "a single-storied house surrounded on at least three sides by a verandah.Aside from the enveloping verandah, which could **take one of two forms in** section, the shape of the house was usually rectangle but not **far from** square. The plan was simple with two equally wide ranges of rooms placed on either side of a central passage. This passage could be **merely minimal**, about 900mm wide, or could be wide enough to function as a room or gallery itself. One range of rooms was typically given to reception rooms such as the drawing and dining-rooms, the other to the bedrooms, usually three but not less than two. In the earlier examples kitchens etc. were relegated to separate, freestanding structures behind the house itself. Later houses **incorporated** these plus the bath-room under a lean-to which was attached to the back of the building.

In section, certain characteristics are also fundamental. These are : a base or platform to set the accommodation above its surroundings. This often nearly came to a full height in later buildings where the floor was suspended and subfloor ventilation encouraged via large openings. Above the floor, which often had ceilings as high as 4,2m, was the pyramidal roof. The two forms the verandah took was either as a continuation of the main roof, often with the pitch slightly flattened or that with a distinct break between the main roof and the verandah, this then taking the form of the lean-to." (Radford (South African Journal of Culture and Art History) 1987:121).

The description of the single storey veranda house corresponds with that of Street-Wilson's longstanding, Type A plan (Fig 3.16, 1892) and its variations. (See Chapter 5 on Plan Analysis). The possible origin of the house type, which lasted from 1889-1913 throughout the drawing collection, is investigated.

6.3 i The Single Storey Verandah House and its Origin.

Radford traces the origin of this verandah House type to the Caribbean to as early as approximately, 1738, where the house of Edward Hay in Kingston, Jamaica was an example of "the central galleried single-storied double house surrounded by piazzas." (Radford 1987:125).

He then makes reference to two subtypes of the West-Indian bungalow. Both had a large central room, the "Pukka" house had a "drawing room which interlead with an equal sized dining room, bedrooms lay to either side" (Radford 1987:125) and had a flat terraced roof surrounded by arcades with classical styling. (Drew 1982:11). The "Cutcha" form, with its pyramidal roof and wrap-around verandah, had "a large living room with bedrooms to the sides and with bathrooms in the corners." (Radford 1987:123).

Drew also assigns the origin of the verandah house to the Anglo-Indian bungalow which he describes as "a temporary single storeyed house with a prominent pyramid-shaped roof identified with British cantonment. The bungalow was surrounded by verandas on three sides, sometimes they ran all around." (Drew 1992:5). Drew sees the bungalow as a translation from a Mughal tent ; "...it retained a tent-based spatial culture with its emphasis on living out-of-doors and focus on landscape." (Drew 1992:6). "Like a tent, it was a casual abode. Bungalows were utilised as overnight accommodation by English officials travelling from place to place in the course of their duties." (Drew 1992:7).

Due to the British involvement in India, Drew says of the verandah that "It was primarily the English, who in late eighteenth and early nineteenth centuries were responsible for entrenching it around the globe." (Drew 1992:43). "British India served as the Imperial archetype where ever the British went, and the bungalow and the veranda were tangible symbols of British rule." (Drew 1992:13).

To establish if the single storey verandah house was part of a global culture due to English colonization, a few examples of verandah houses in the British Colonies are undertaken.

6.3 ii The Single Storey Verandah House in Natal, South Africa.

The verandah house is a identifiable element of architecture in the Colony of Natal. "Since the earliest settlements had been established at Port Natal, one kind of building had been used more than another. This was the verandah house." (Kearney 1973:14). The early settler houses "were one storeyed bungalows, often with a verandah all round." (Kearney 1973:15). They were usually thatched (Fig 6.2) with walls made of wattle-and-daub. Corrugated-iron was introduced in the 1850s and by 1860 it was widely used as a roofing material. (Radford Lantern:July 1982). (See Chapter 7 on Building Materials).

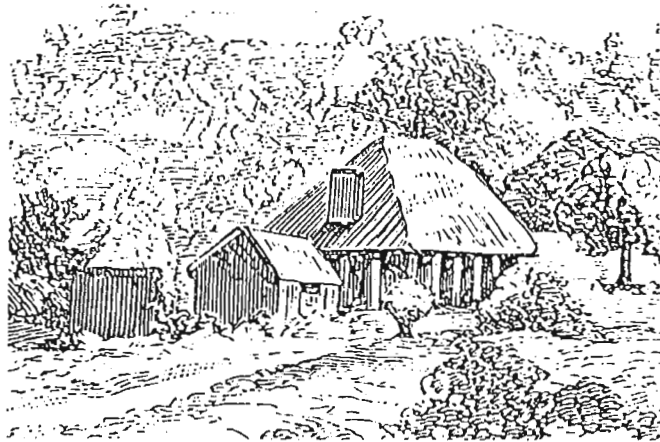


Fig 6.2 House Feilden, Durban. (1850)

"No records exist of the veranda-houses built by the Boers in the interior of Natal, and there were only a few such erected by the first English settlers in Pietermaritzburg before 1850." (Kearney 1973:14).

Radford states that although it was agreed by Kearney and Lewcock that the verandah house was "a product of the English Settlers" it was "not confined to Natal though and during the late nineteenth century had spread first to Kimberley c. 1875), Barberton (c.1884), Johannesburg (c. 1890) and finally to the smaller towns by 1900. The great rebuilding of the devastated farms in the Orange Free State and the Transvaal after the South African War (1899-1902) also saw its wide spread use." (Radford 1987:123).

The house designed in 1819 for Lord Charles Somerset, the Governor of the Cape Colony, was the first (added) verandah house to be built in South Africa. Lord Charles Somerset was responsible for other projects carried out in the Cape which popularised the verandah "so that by the eighteen-thirties it had become a characteristic element of South African Architecture." (Lewcock 1958:112).

An early example of the bungalow-type house with verandahs all-round and a separate kitchen, was House North, Northdene (c. 1860) (Fig 6.3).

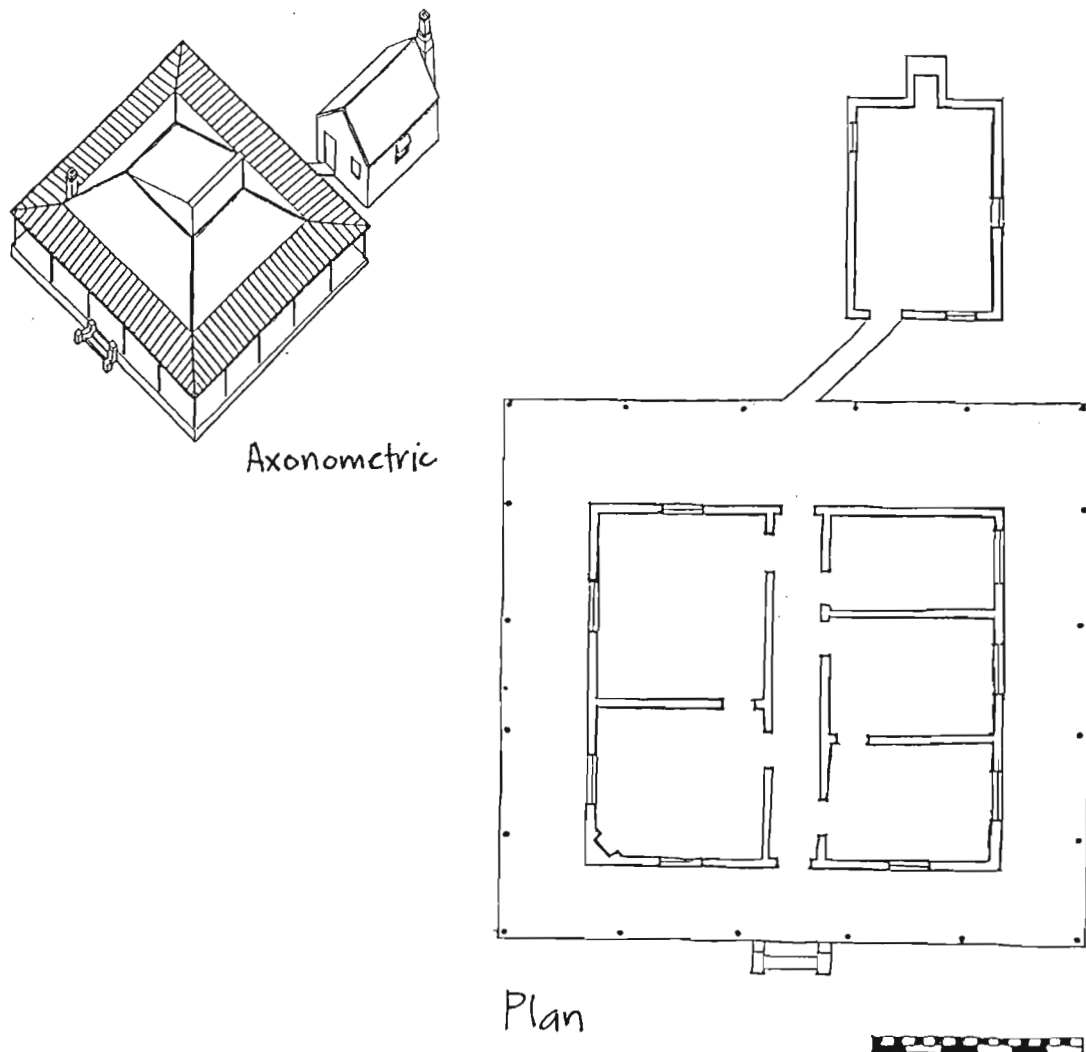


Fig 6.3 House North, Northdene, c. 1860.
- 367 -

Examples of the later bungalows with the kitchen incorporated under the back lean-to roof are found in Street-Wilson's domestic architecture, described as Type A houses (Fig 6.4). In the drawing collection, the true bungalow, with its wrap-around verandah, is seen in conjunction with the "verandahed" house type which had either a front or front and side verandah always combined with the back verandah. Type B (Fig 6.5), the gable verandah house which appears later in 1896 is a variant of Type A house.

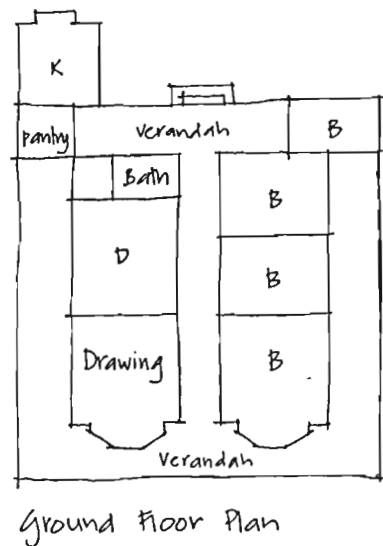


Fig 3.1b
1892

Fig 6.4 Street-Wilson Type A

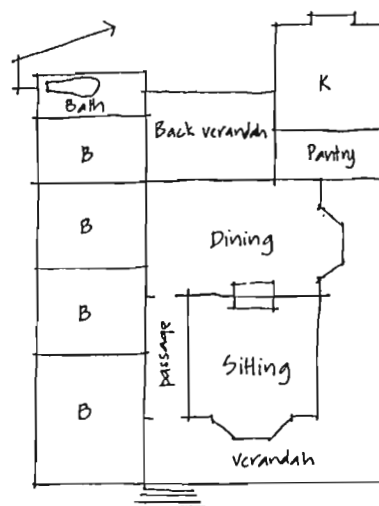


Fig 3.5b
1900

Fig 6.5 Street-Wilson Type B
- 368 -

The typical single storey verandah house, designed by Street-Wilson and his partners, is not a derivative of English domestic architecture. True to the teachings of the Arts and Crafts architects, it appears that the vernacular house plan of the early settler cottages was turned to as an inspiration and as a design source. The American architects were encouraged to turn to their vernacular architecture, in writings in journals such as "American Architect and Building News" of January, 1876 and Sculley writes "As the 'Queen Anne' purportedly revived vernacular English domestic of several centuries past, it began to be related in the minds of Americans to their own colonial building of one hundred to two hundred years before.." (Sculley 1874:22). Such writings may have also have had an influence on South African architects.

6.3 iii The Australian Single Storey Verandah House.

According to Drew, "Australia started as a 'canvas town', a gaggle of tents and huts.." (Drew 1992:41). It developed much later into a "veranda country" beginning with the verandahs being an addition to early houses. The addition of verandahs gave the house the appearance of a bungalow and added status and sophistication to simple cottages. The early colonial bungalows, with encircling verandahs, were rare at the beginning of the nineteenth century.

In the latter part of the nineteenth century, an example of an Indian inspired bungalow house type, is Lime Kilns in c. 1870, Victoria (Fig 6.6). The house has a central passage off which the rooms lead and it has a rear, detached kitchen, very similar to House Northdene in Natal and to the description of the typical verandah house.

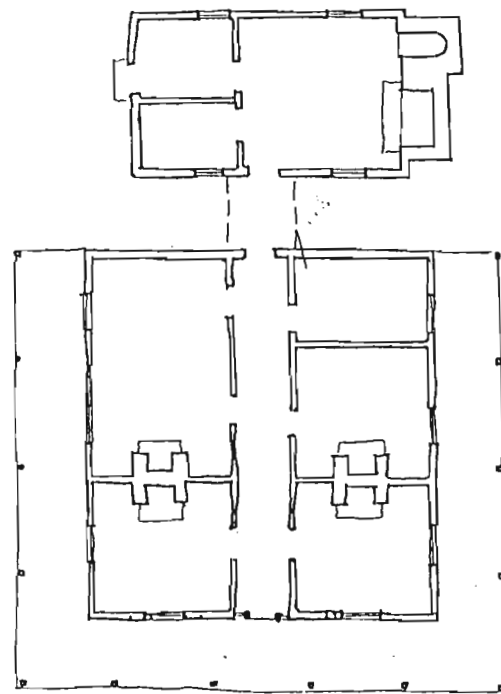


Fig 6.6 *Lime Kilns, Victoria, Australia (c. 1870)*

A bungalow house type which was popular in Australia was the recessed or "umbrage" type where the front verandah is recessed and flanked either side by rooms. "This feature was a survival from the Anglo-Indian bungalow which had a square plan with bedrooms running down both sides, the veranda rooms on the ends being a product of this plan." (Drew 1992:47).

The gabled verandah house is seen in examples of Edwardian domestic architecture in Australia, although the typical Type B plan with a central passage linking front to back verandah is not evident. The sketch floor plan of a simple Edwardian Cottage (Fig 6.7), in 1901, is an example of such a plan.

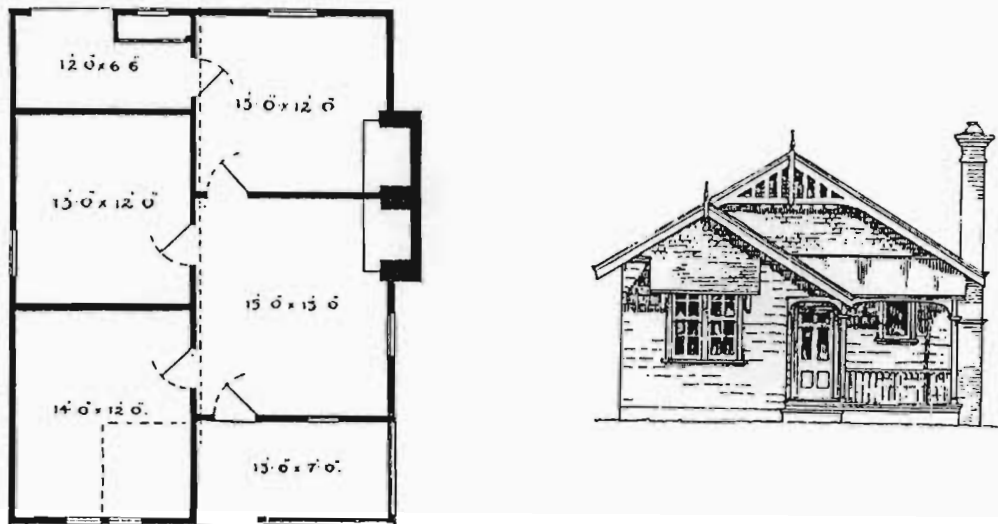


Fig 6.7 *Edwardian Cottage, in 1901*

6.3 iv The American Single Storey Verandah House and the American Porch.

The term "porch" is given to the American equivalent of the verandah. Other terms have been used such as "galerie", being the oldest term and introduced by the French, seen in the "typical French pioneer house of the Mississippi Valley of one storey built of timber, with three or more rooms arranged in line and surrounded by a flared 'galerie'". (Drew 1992:19). In this type the "galerie" provided access to the rooms (Fig 6.8).

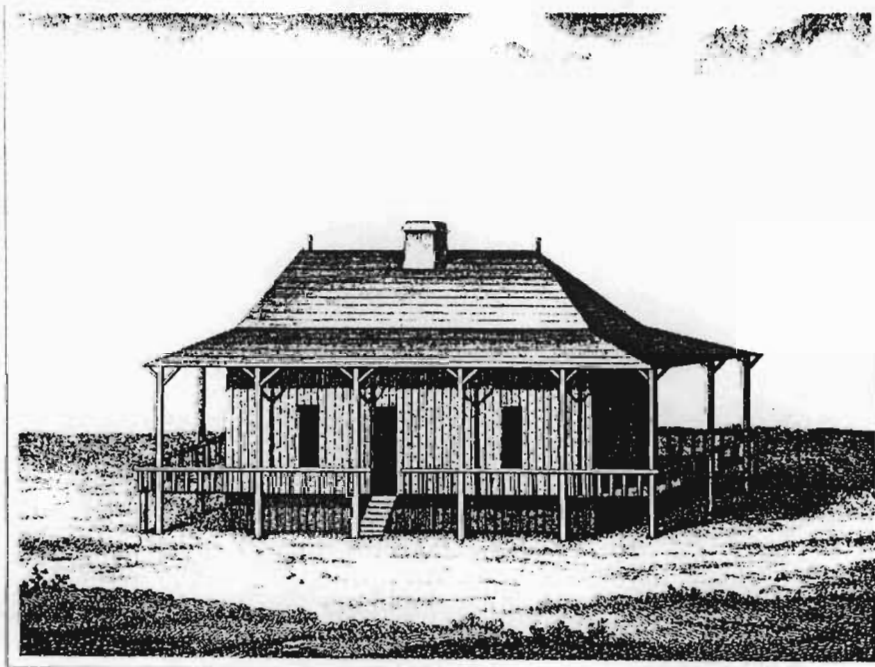


Fig 6.8 *French Single Storey Galleried House.*
County of Illinois. (1796)

In the Southern States where the climate was hot and humid, the term "piazza" was used to describe the verandah. The "piazza" differed from the French "galerie" in that it "functioned as extra out door rooms enclosed by 'jalousies' or louvres.." (Drew 1992:17). It was found either as a front verandah or an all-round verandah. The Orphan House, Georgia, 1740, (Fig 6.9) has an all-round verandah with a central passage which has been reduced in size to become a "breezeway". (Radford 1987:124).

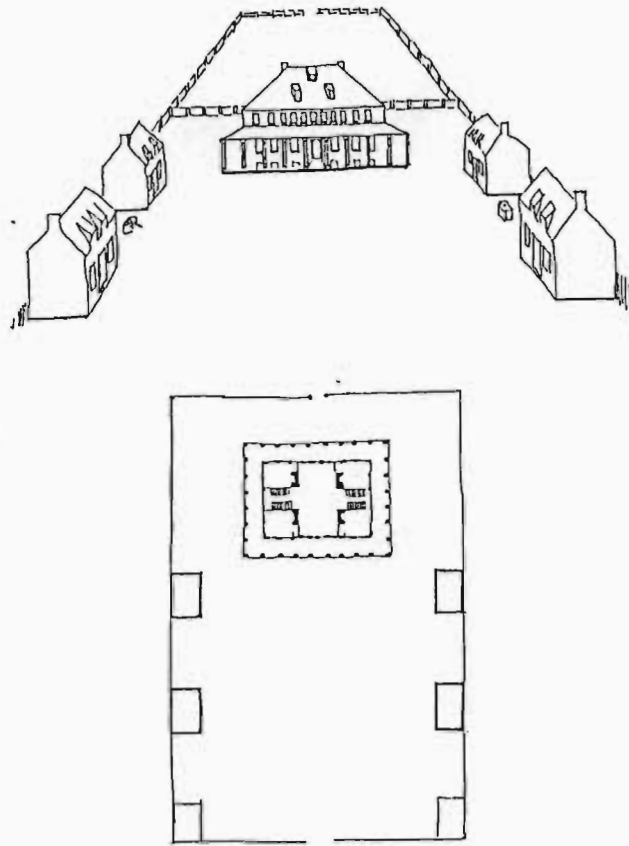


Fig 6.9 *Orphan House, Georgia.*

The typical single storey verandah house can be seen as a recurring plan type in the British Colonies supporting the fact that "The veranda is a fugal phenomenon which formed an **important** polyphonic element of a global colonial society that was multinational in character." (Drew 1992:13).

6.4 The Villa/Double Storey House and its English origins.

The origin of the villa/double storey plan and type can be seen in the work of the Arts and Crafts architects such as Norman Shaw. (See Chapter 1 on Arts and Crafts) The verandah is not, however, an element found readily in either English urban or rural examples. When it is used, it is usually found as a adjunct to a building and not a an integral part of the building form.

The distinguishing factor between domestic architecture produced in England and Natal, is the verandah. The verandah's use as an outdoor room requires a climate which is conducive to outdoor activities and the summer months on the coast of England provide such a climate. The use of verandahs in seaside architecture of Victorian resorts of Cromer and Westgate-on-sea demonstrates this.

"As a group they have a immediately recognizable character which can reasonably described as 'holiday Queen Anne'. Materials are red brick red tiles and white wood. Roofs are usually hipped, with dormer windows and the occasional gable; windows are usually sashed, with smaller panes at least in the upper half. Tile-hanging, bay windows and verandahs abound. The verandahs tend to be supported on elaborately turned wooden columns, such as had already appeared on some of the porches and balconies in Bedford Park or on overmantels in 'Queen Anne' drawing rooms. The essence of the style was to combine dormers, bays, verandahs, and roof into a chic and cheerful whole." (Girouard 1977:1890).

During the summer months when temperatures were more amenable, many families would evacuate their homes for the seaside resorts. "Most Victorians on holiday were not only, or even mainly, looking for enjoyment; they were in search of health as well as pleasure. Resorts were classified as either bracing or relaxing; in the late nineteenth century it was more fashionable to be braced than relaxed. A north exposure was considered especially bracing; the two most fashionable late Victorian resorts, Westgate-on-Sea and Cromer, not only faced due North but gloried in it." (Girouard 1977:186).

Examples such as Exbury House c. 1880 (Fig 6.10), built for A.B. Mitford, at Westgate-on-Sea, the house at Westgate by C.N. Beazley built in 1883 (Fig 6.11) and "Ellingham" at Westgate-on-Sea (Fig 6.12) are examples of double storey verandah houses at the sea-side.



Fig 6.10

Author unknown. "Exbury House",
Westgate-on-Sea. (c.1880).



Fig 6.11

C. N. Beazley. Westgate. (1883)

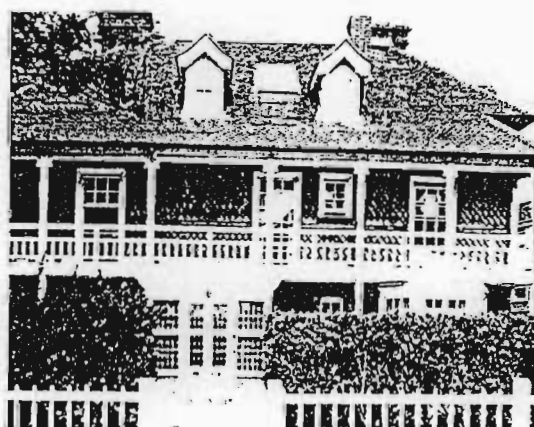


Fig 6.12 "Ellingham", Westgate-on-Sea. Undated.

The holiday spirit of leaving the home to be "braced" by a new climate both climatically and socially, could be likened to the pioneering spirit of leaving the Mother country and the refinement and luxuries of British Society, to be met by the challenges of colonial living on the coast.

The verandah is a recurring theme throughout Street-Wilson and his partners' domestic architecture in the villa and the double storey house types. It's application to the coastal resorts in England and to the garden city of Bedford Park, and the fact that there was an established tradition of the verandah in Natal, made it a suitable feature for the coastal, tropical conditions of Natal.

6.5 The Semi-Detached House and its English Origins.

The origin of the semi-detached house plan can be seen in the common English row house. The vast majority of houses built in England were built as row houses, with "only about three per cent of all dwellings stood as detached or semi-detached houses" by 1911. (Muthesius, S. 1982:1).

Both examples have the main section of the house, which includes the drawing, dining rooms on the ground floor and the bedrooms and bathroom on the upper floor, under one main roof, and the services rooms, which formed part of a back extension, under its own roof. In both the English row house (Fig 6.13) and the Natal semi-detached house (Fig 6.14), there was a clear distinction between the front and the back of the house. Again, as with the English examples of villas and double storey houses, it is the verandah which distinguishes the two with no verandahs evident in the English examples of row houses. This typical plan is also employed by Shaw in his examples of semi-detached houses in Bedford Park (Fig 6.15).

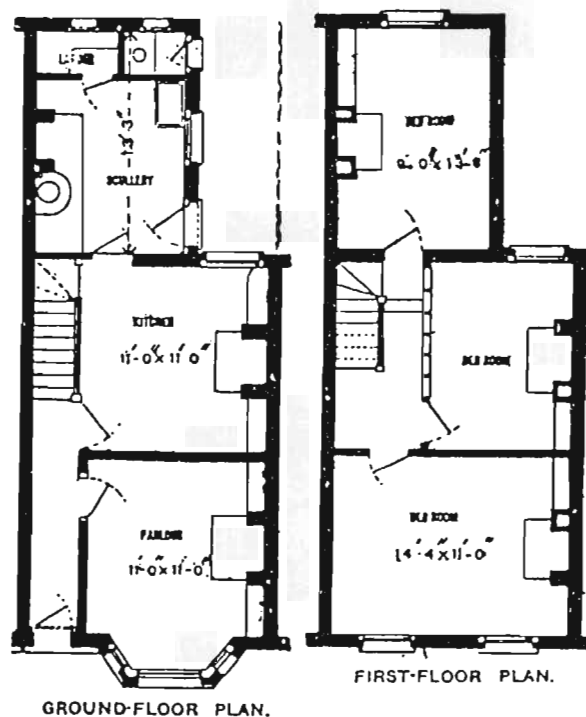
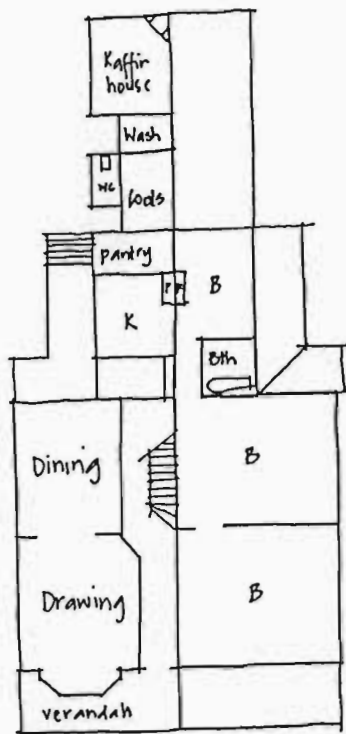
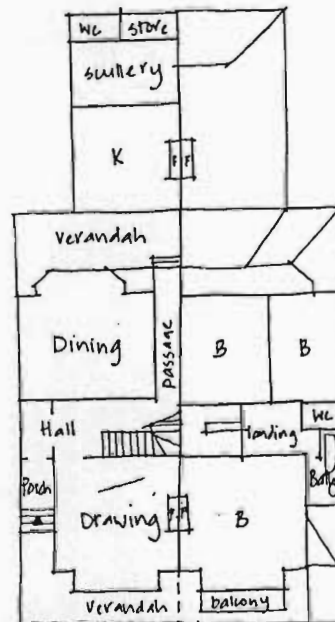


Fig 6.13 *The English Terraced House. Plan (c 1833)*



Ground Floor Plan
First Floor Plan

Fig 3.4b
1898



Ground Floor Plan
Upper Floor Plan

Fig 3.13
1891

Fig 6.14 Street-Wilson. Semi-Detached Houses. (OD 621, 1898)

- 1 Scullery
- 2 Kitchen
- 3 Dining-room
- 4 Hall
- 5 Drawing-room
- 6 Vestibule
- 7 Bedroom

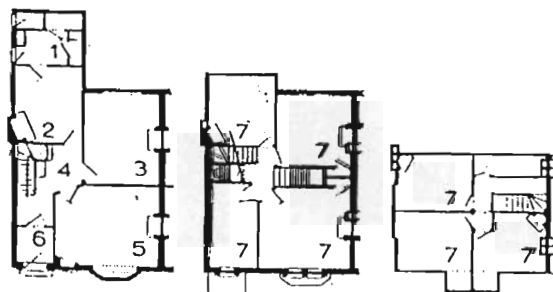


Fig 6.15 Shaw. Semi-Detached Houses, Bedford Park. (c 1880)

6.6 Verandah Houses in Natal.

Insight into the verandah houses designed by Street-Wilson's contemporaries and by non-architects alike, is necessary to establish if Street-Wilson and his partners' domestic architecture was unique or a reflection of general design principles of the understudied time period. A broad selection of examples have been chosen from both original drawings and measured drawings all of which can be found in the Barry Biermann architectural library, University of Natal.

At the time of Street-Wilson's arrival in Natal, the name of William Emery Robarts¹ appeared frequently in tender advertisements in the Natal Mercury. An example of a villa designed in 1903, (OD 297) at 295 Florida by W.E. Robarts (Fig 6.16) shows a gable verandah house with a two sided front verandah and a back verandah. The kitchen is behind the range of rooms which includes the library and the morning room while the pantry and lavatory are positioned behind the dining room. The bedrooms are located on the upper floor. The drawing of the semi-detached houses designed in 1905 (OD 205) (Fig 6.17) shows a typical plan of the drawing and dining rooms as part of the main house and the back extension incorporating the back verandah and kitchen. The bedrooms and bathroom, are located on the upper floor.

1: W.E. Robarts had established a successful practice and trained several young architects such as Hoskin and Moon. (Hillebrand 1975:200). W.E. Robarts was the founder Chairman of the Natal Institute of Architects which was formed in September, 1901. (Hurst 1945:4). He was the Mayor of Durban in 1887, when Street-Wilson arrived in Natal.

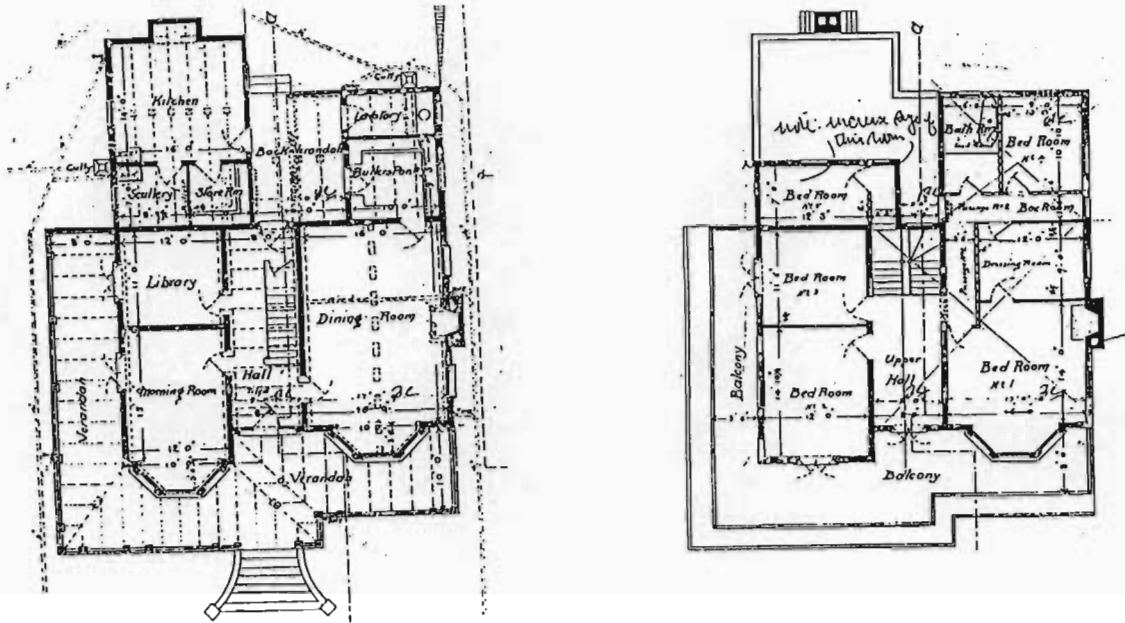
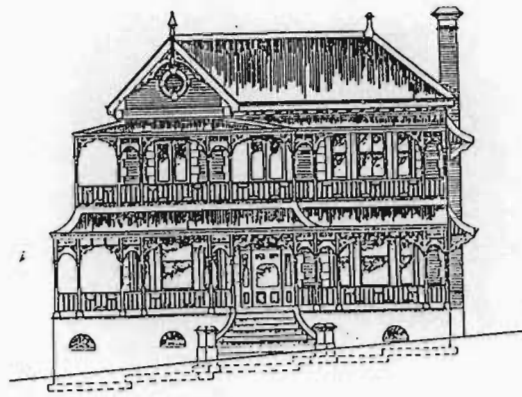


Fig 6.16 W.E. Robarts Architect. 295 Florida Road. (OD 297, 1903)

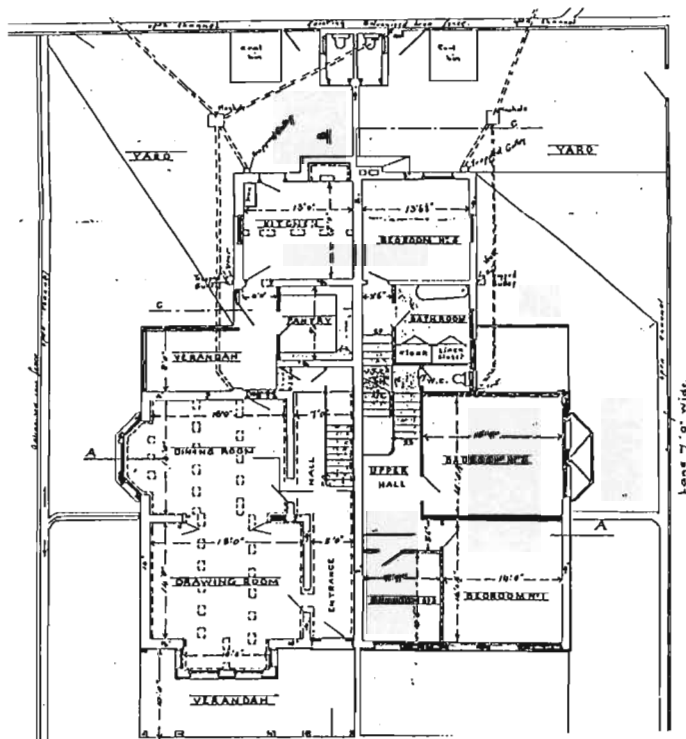
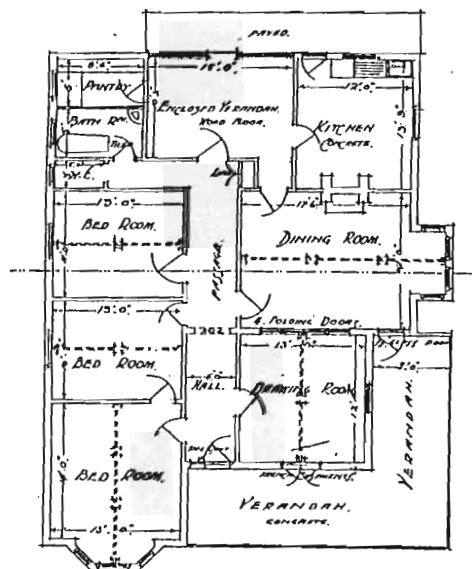


Fig 6.17

W.E. Robarts Architect. Semi-Detached Houses designed in 1905. (OD 205)

In 1912, the single storey, gable verandah house (OD 299) (Fig 6.18), designed by Cathcart Methven¹ (1847-1925) at 426 Clark Road, has a front and a side verandah, as well as a back verandah. The bedroom and bathroom range of rooms and the drawing, dining room range of room are separated by the central passage.



PLAN

Fig 6.18 Cathcart Methven Architect. 426 Clark Road. (OD 299, 1912)



FRONT ELEVATION

-
- 1: "Mr Methven was a distinguished member of three professions mentioned - a Fellow of the R.I.B.A., a member of Institute of Civil Engineering and Fellow of the Royal Society of Edinburgh and as a painter he was a past President of the Natal Society of Arts. (Architect, Builder and Engineer, October 1925, 23).

The villa designed by Henry and Hill architects in 1905 (Fig 6.19), shows the kitchen positioned behind the dining room with the back verandah displaced to one side of the stair and hall.

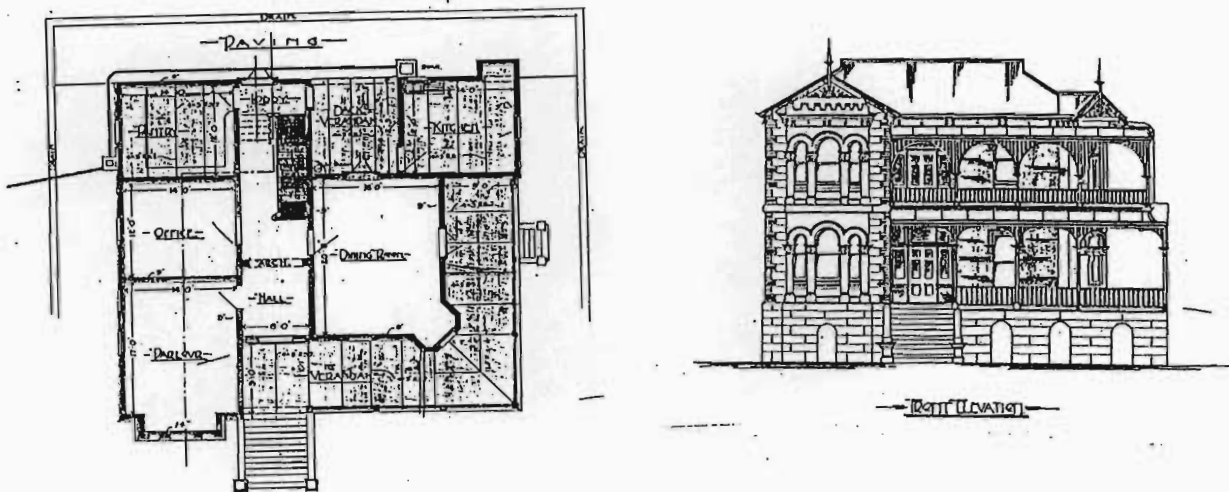


Fig 6.19 Henry and Hill Architects. 1905.

The single storey, gable verandah house (OD 133, 1912) (Fig 6.20) at 242 Chelmsford Road, designed by Moses Holmes¹, shows similar planning principles to that of Methven's design of a house.

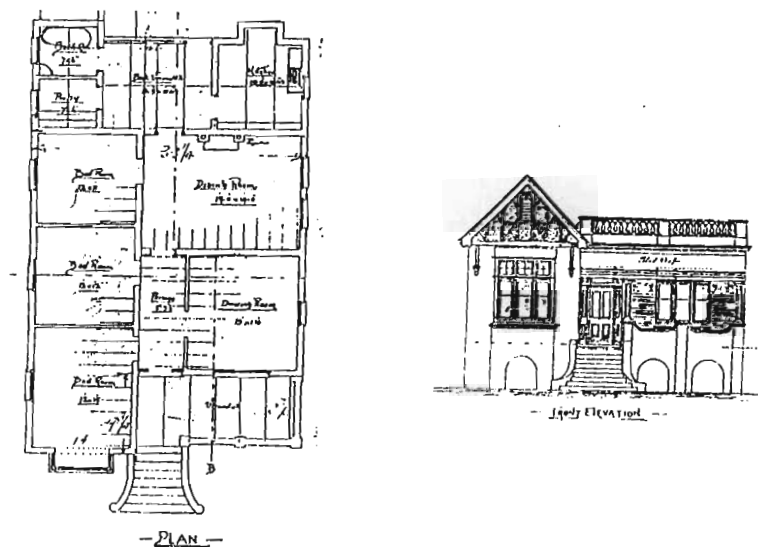


Fig 6.20 Moses Holmes Architect. 242 Chelmsford Road. (OD 133, 1912)

1: Holmes was one of the founder members of the Natal Institute of Architects. (Hurst 1945:4).

The Victorian single storey verandah house designed by Ritchie and Galliers Architects in 1899 at 290 Cowey Road (Fig 6.21) has a rectangular plan type. It has two front verandahs and a back verandah with a passage link between the two, but has an additional longitudinal passage giving access to the bedrooms and bathroom.

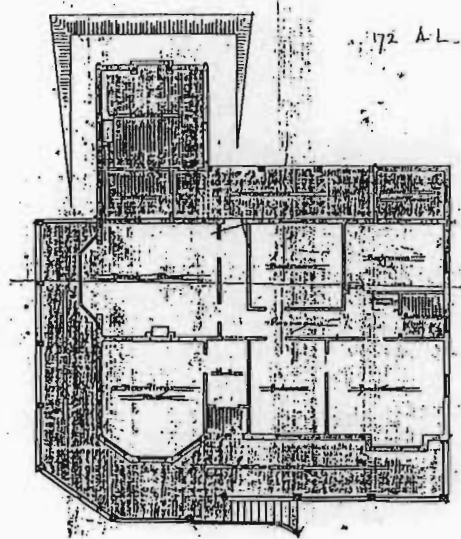


Fig 6.21 *Ritchie and Galliers Architects in 1899 at 290 Cowey Road*

The drawing of a single storey house with verandahs to three sides, 37 Chelmsford Drive (Fig 6.22), has **no author** and may not **have been** designed by an architect. It shows similar planning principles to previous examples.

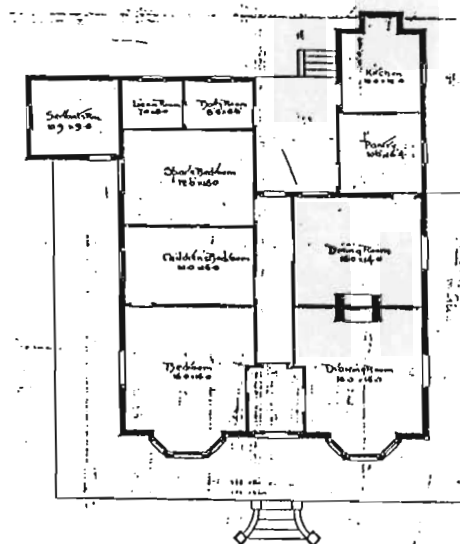


Fig 6.22 *No Author. 37 Chelmsford Drive (1897)*

Both the single storey verandah houses and the example of a semi-detached house designed by Natalian architects, show similar design principles to those used by Street-Wilson and his partners. Although typical gable verandah houses in principle, the plans of the villas do not follow the strict gradation of rooms seen in Street-Wilson's domestic architecture. As a general observation, the detailing used by Street-Wilson and his partners is restrained and uncluttered when compared with the examples selected.

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Fig 6.22 :	No Author. 37 Chelmsford Drive (1897)	OD 22 (U.N.)

CHAPTER 7

BUILDING CONSTRUCTION AND SPECIFICATIONS

Examples of detail drawings have been extracted from the drawing collection to illustrate construction techniques and typical detailing employed by Street-Wilson and his partners. In some cases, a brief history of building materials helps to contextualise materials within the late Victorian, Edwardian and early Union periods. Reference has been made to the specification for the semi-detached houses designed for the "Estate of the late John Crompton" in 1896, (OD 593, Fig 3.41) which helps to typify building construction methods.

7.1 EXTERNAL

Walls

The walls of the first settler houses were made from local materials which were readily available, such as wattle and daub. These wattle and daub huts, often surrounded by a verandah, were gradually replaced by more substantial buildings as more building materials became available. "Burnt brick and stone were used as walling materials. Stone was used for foundations." (Kearney 1973:64). "The earliest recorded use of brick in Natal was that in the Block House on the Point in 1847. These bricks would have been brought up from Cape Town or Port Elizabeth." (Kearney 1973:65).

Before there was a demand for face brick exteriors to houses in Natal, the brick walls of the early settlers' houses were finished with a coating of render or stucco. This wall finish was often applied to protect inferior, porous bricks from the rain. When stucco was added to the wall as the final wall finish, it often hid defects in the bricklaying. Often lines were incised along mortar joints to imitate blocks of stone which were known as "ashlar". (Evans 1979:64). This block-like pattern relieved the monotony of a plastered wall. A lime whitewash was sometimes applied over plaster but because of impermeability of limewash it had to be applied on an annual basis.

A great demand for facebricks was created by immigrants from England where facebrick was fashionable and commonly used in domestic architecture of the Arts and Crafts movement. The early bricks produced in both Pietermaritzburg and Durban were criticised for poor quality, expense and undesirable colouring. (Kearney 1973:65). Brickyards were established by the government and municipalities (Henderson 1904:8) and by 1869, uniform, salmon pink coloured bricks were produced which, when built with flush mortar joints, gave the brickwork an even texture.

By 1903 it was said of brick and tile production that "the latest and most suitable machinery has been erected.... and the output has been eminently satisfactory, so that at the present time Natal can more than meet her own demands, thus opening up a lucrative trade with the interior." (Morse & Monaghan 1903:xi).

Facebrick was commonly used throughout the building shown in the drawing collection. It was often used in combination with plaster where decorative plaster banding added texture to the walls. There are examples where the houses had facebrick fronts and plastered side and back walls (Fig 3.41, 1896 and Fig 3.67, 1904). "Ashlar" patterned plaster and painted walls were occasionally used (Fig 3.59, 1901) and, following stylistic trends, plaster and painted walls characterized the Union Period (Fig 3.73, 1911). (See Chapter 5 on Style).

The specification (Fig 3.41, 1896) for brickwork states that the bricks were "to be of approved quality and from an approved maker, and brickwork to be executed in a workmanlike manner, grouted every fourth course. The front elevation as far as the front door to be faced with best picked and selected common bricks cleaned down and coloured on completion, and joints to be well raked and pointed with 3 to 1 cement and keyed. All other external walls and interior of kaffir house to have struck and weathered joints for cement washing or lime whitening." The Amended Bye-laws of Durban, 1903 state that a new building was to be "built of good, hard and well-burnt brick (to be thoroughly soaked with water before being used).....properly bonded, truly built and solidly put together...." (N.G.G. 1903:1676).

Foundations

Footings in the specification of Fig 3.41, 1896 were to be formed "as shewn (sic) with one course of 14 inch work for 9in. walls." The Amended Bye-laws of 1903 state that "the projection of the widest part of the footings of every wall to be at least equal to one half of the **thickness** of such wall at its base. Every wall and every pier of such building to rest on the solid ground." (N.G.G. 1903:1210). Only two examples of foundations drawings form part of the drawing collection. These included (Fig 3.33, 1895), the house designed for Reid Cochrane and the house for Percy Binns in Essenwood Road (Fig 7.2).

Examples of details of footings are found in (Fig 7.1 and Fig 7.2).

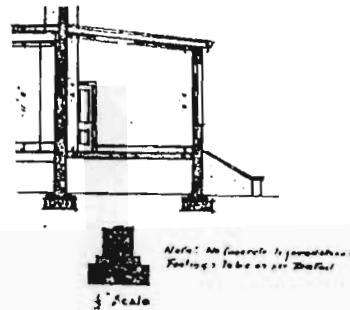


Fig 7.1 Footing Detail (Fig 3.60, 1902)

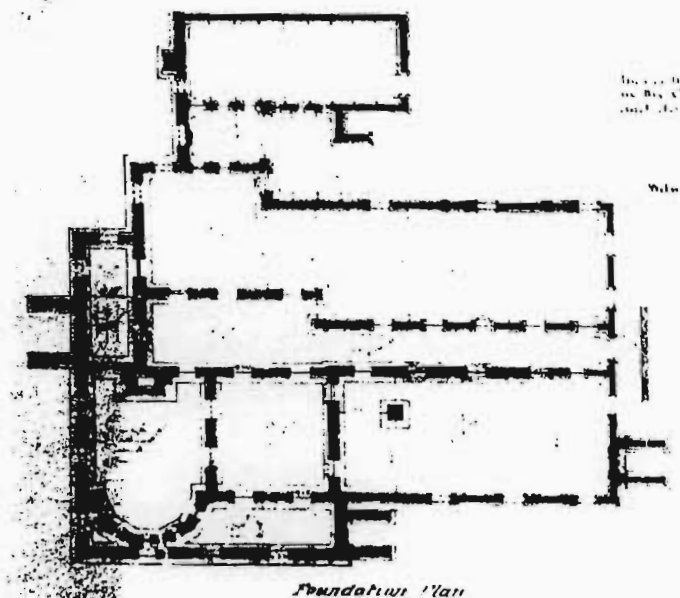


Fig 7.2 Foundation Plan, (Fig 3.75, 1900).

Timber

Timber was an important building component and was used for rafters, trusses, roof beams, floor joists, floor finishes etc. In Natal, timber was not abundant. Of what was available, yellow-wood (*Podocarpus falcatus*) was most frequently used for building purposes but required protection from the wet as had a tendency to shrink. It was also used for furniture. (*Podocarpus thunbergia*) another local yellowwood was available in the Dargle and Karkloof Valleys of Natal Midlands and was used mainly for rafters, ceilings, doors, window frames and floors. Sneezeewood (*Ptoerozylon Utile*) and Stinkwood (*Laurus bullata*) were used for structural purposes and were appropriate for external use. (Kearney 1973:68).

Imports of wood were made from all over the world. Kearney states that "most of this came from England and Prussia but substantial quantities are recorded as arriving from Bombay, the Cape, South Australia, Sweden and the United States of America. Indeed, not only bulk timber but entire building elements such as doors, windows and perhaps veranda "lace" were imported from the latter. Later, imports were received from Burma, and large timber merchants were established in Durban. By 1880 these companies were producing mouldings, doors, windows, stair balusters, decorative bargeboards and verandah posts and fascias. All of these had been, until this time, imported from other countries. Fretwork and moulding machinery gave impetus to the use of timber for verandas for which cast-iron had been had begun to be almost as economical and readily available." (Kearney 1973:68).

The Roof

The Structure

Trusses used were generally "king" and the "queen" trusses. Trusses, Type A followed by Type B (Fig 7.3) are most commonly found in the drawing collection.



Fig 7.3

Type A

Type B

The specification (Fig 3.41, 1896), states that "All timbers to be best quality Baltic Deal. All exposed timbers to be wrought." It specifies the structure for the roof as follows : "Wall plates, rafters, collars and struts 4 1/2" x 3". Ridges, hips, and valley rafters 9" x 1 1/2". Valley boards 9" x 1". Trim for and form dormer windows to Staircase with 5" x 3" rebated and beaded frame, mullion and sill. Trimmer over landing 5 1/2" x 3". Framing and studs of dormer 3" x 3", 18" centres, covered with 1" rough boarding and 2" rolls (for zinc). Form valleys."

The Roof Covering.

Corrugated Iron.

The early settler houses were thatched which limited roof design possibilities of a house since thatch cannot be laid at low pitches. Thatch was later replaced by corrugated iron (Fig 7.4). "From patents granted in Britain it is apparent that the material finally evolved in the 1840s and became increasingly available during the 1850s and that by 1860 its use was widespread throughout Southern Africa." (Radford Lantern July 1982: 61/62).

"Iron had been used in the Cape as early as 1847 and on the arrival of the first Byrne immigrants to Natal in 1850, it was already in evidence on a few Durban roofs. Its durability and economy was largely responsible for its eventual widespread use." (Kearney 1973:70). "The availability and relative cheapness made it an ideal roofing material for Natal, and on verandahs and houses it allowed the continuation of the development of the colonial style." (Kearney 1973:70).

The specification for the main corrugated iron roof (Fig 3.41, 1896) reads :
 "Cover the whole of the roofs with galvanised corrugated iron 24 W.G. (of approved brand) laid with not less than 6" end laps and 1 and half corrugations lapping at sides. Ridges and hips to be covered with 24" galvanised iron ridging with 6" end laps. The whole to be secured with 2 and a half galvanised screws and washers. The laps to be right way for weather. Valleys to be carefully cut and true. The whole to be left perfect and watertight and the Contractor shall make good at his own expense any defect which may show itself within 12 months from date of certificate of completion."

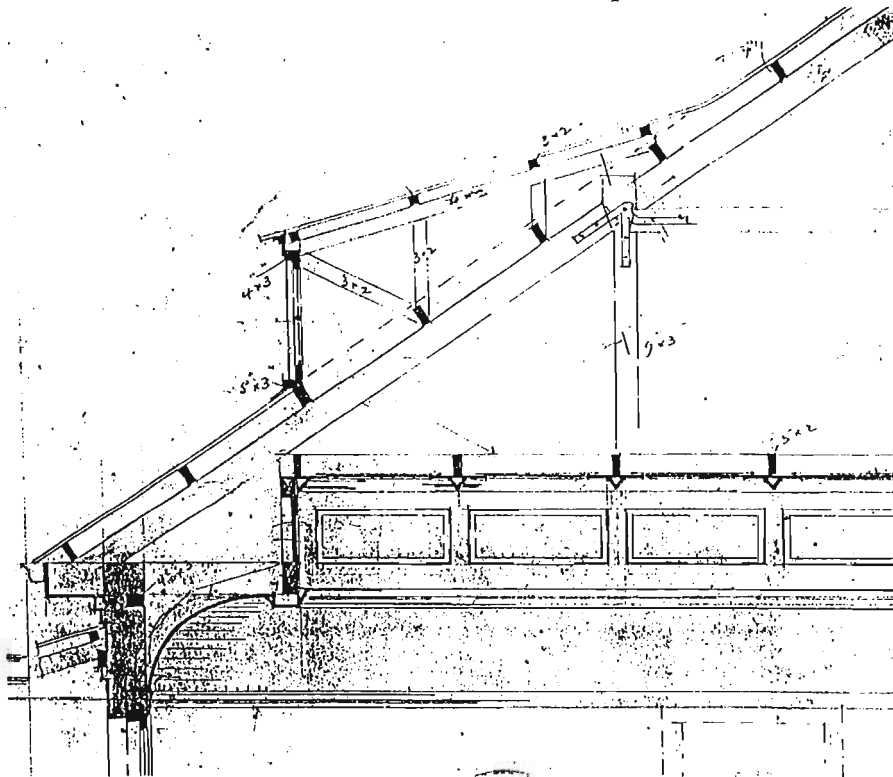


Fig 7.4 Typical Corrugated-iron Roof Detail with Dormer Window
 Fig 3.45, 1898)

The Verandah Roof.

The material of corrugated iron is a suitable material to be applied to verandah roofs (Fig 7.5) since **it is** a lightweight material which can be formed into different profiles and can be laid at low pitches.

Edmund Nelson, the Natal Government astronomer in the 1870s, comments on the use of corrugated iron on a verandah roof, "the combination of a lightweight verandah roof sheltering massive walls **was** eminently sensible for a region with low variations in diurnal temperatures. In such a climate it is important to reduce the heating of the massive walls and floors in summer by some device that will not reproduce the **same** effect - thus its needs to be of a thin and light construction so that it may cool rapidly to permit night comfort." (Kearney 1973:41)

A verandah was specified as follows : "Front verandah posts 4" sq. stop chamfered. Half posts at walls. Plates 4" x 3". Bracket sweeps 1 1/2 " cut and chamfered. Rafters 4 1/2" x 2". Wall plate bolted to wall 4 1/2 x 2". Purlins 3" x 2 1/4". Hip rafters 7" x 1 1/2". Beaded fascia 7" x 1". Enclose back verandah with trellis work secured to 3" x 4 1/2" studs and rails 1 1/2" gate hung with butt hinges as shown." (Specification Fig 3.41, 1896).

Although fretwork was readily available from catalogues such as the Price List, 1897 : M.M. Steytler & Co., Strand Street, Port Elizabeth, detail drawings of verandah brackets and posts (Fig 7.6 and 7.7) in the drawing collection show that they were purpose designed for each house.

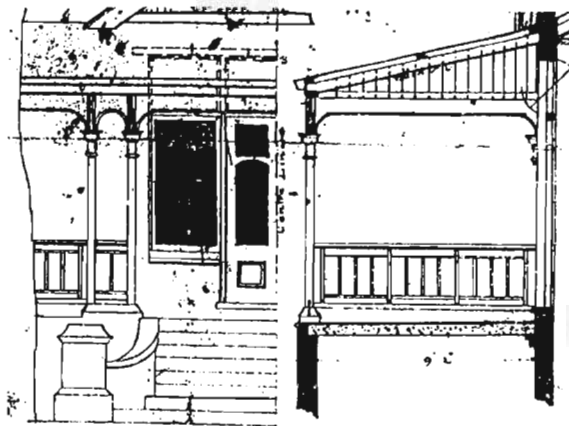
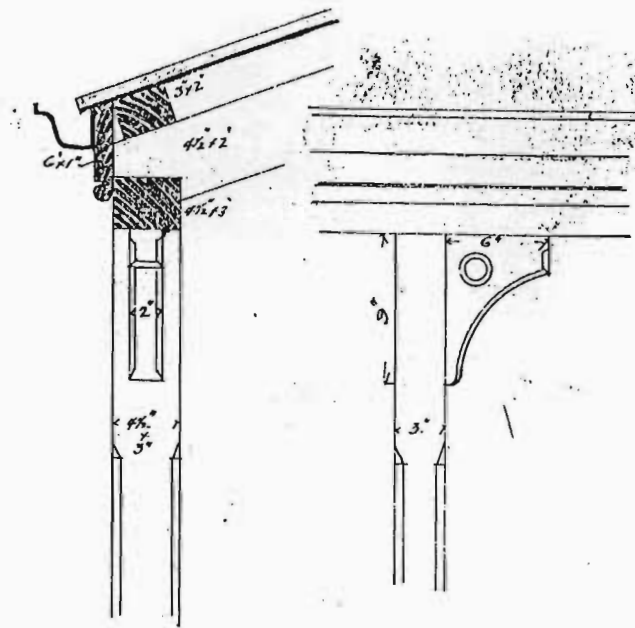


Fig 7.5 Verandah Detail. (Fig 3.54, 1899)



Detail of Verandah Post

Fig 7.6 Detail Drawing of Verandah Post (Fig 3.1, 1889)

Other examples of verandah detailing are to be found in the drawing collection in drawings : (Fig 3.54, 1899 Fig 3.58, 1901 Fig 3.2, 1891 Fig 3.11, 1891)

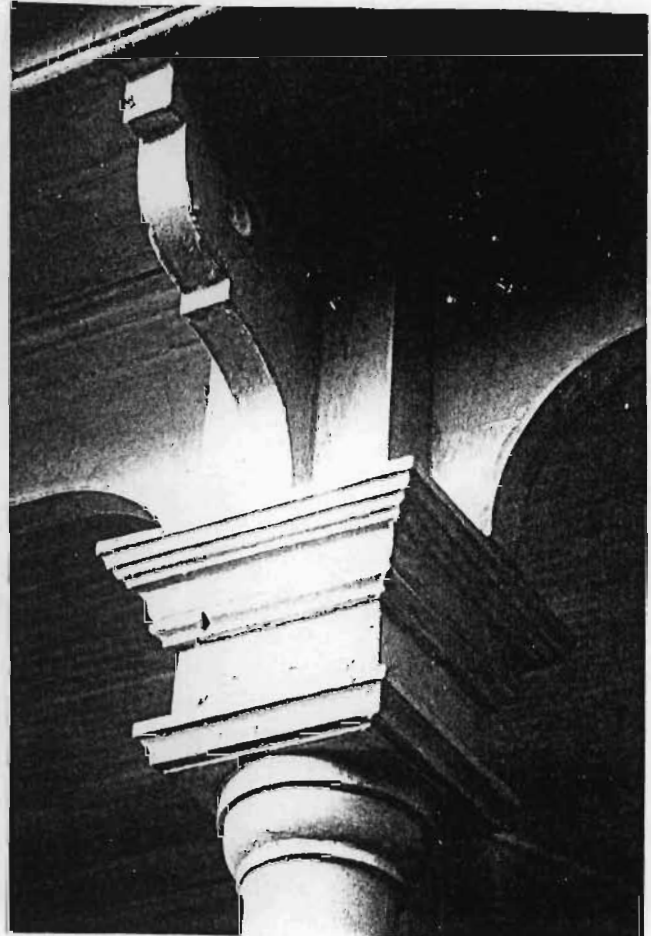


Fig 7.7 Verandah Post Details (Fig 3.61, 1902)

Features associated with the roof include roof lights which are found in the examples (Fig 3.34, 1895), roof ventilators, an example of which is detailed in (Fig 7.8) and a gable ventilator (Fig 3.41, 1896). The gable ventilator (Fig 7.9) is specified as "Circular lunette in front to have 5" x 3" rebated and beaded frame 1 1/8" louvres housed to same angle of 60 degrees with perforated zinc at back." (Specification Fig 3.41, 1896).

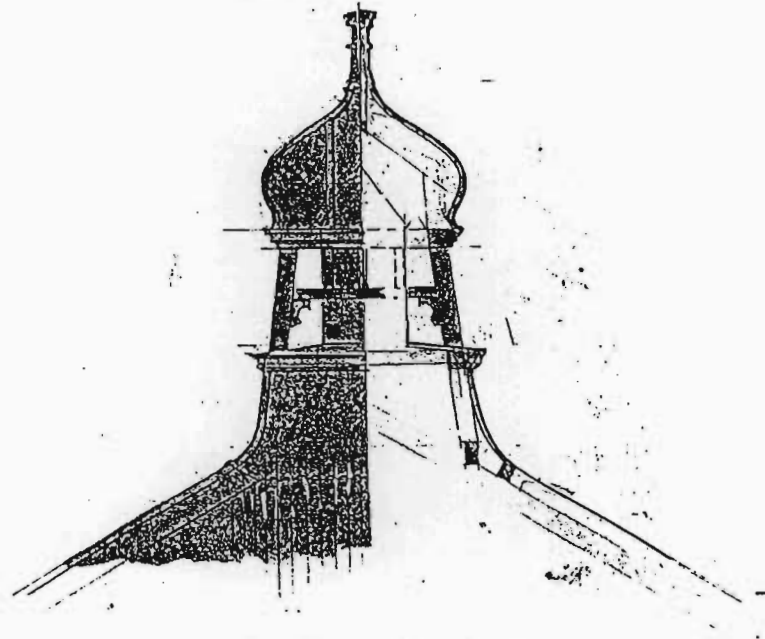


Fig 7.8 Drawing of Roof Ventilators (Fig 3.34, 1895)

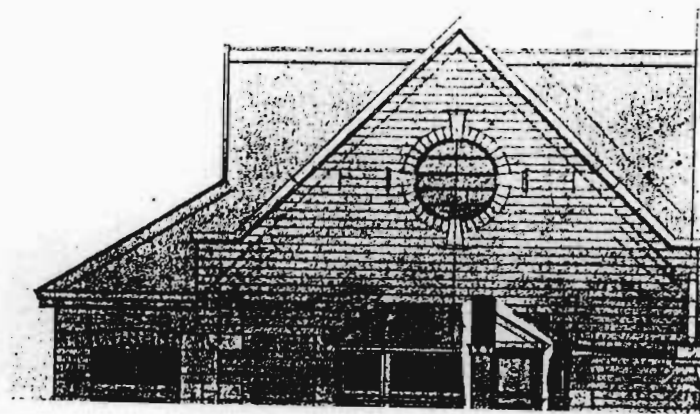


Fig 7.9 Gable ventilator (Fig 3.41, 1896)

Roof Tiles

Before the industrial revolution, two types of tile were in use in England. The one **was** the plain tile, or "Germanic" tile which was a shingle type of tile. "The tiles are laid in regular courses, but in order to protect the joints between the tiles, each tile over laps two others, leaving about two-forths of the surface exposed." (Guedes 1979:248). The resultant clay tile roof was very heavy and required pitches of 45 degrees and over. The second type were "Belgic" tiles or pantiles which were "S"-shaped and overlapped its side neighbour tile. This was a much lighter roof and the pitch could be reduced to 30 degrees. "During the 19th century, a large number of different specially shaped, interlocking clay tiles were designed and patented". In 1860s, the "Marseilles" tile, produced in France, was exported across the world. (Guedes 1979:249).

Large quantities of slate were imported into the Colony. The two sizes favoured in Natal were the "Duchesses" and the "Countesses". Corrugated iron gradually replaced slate in the 1870s. (Kearney 1973:70). Shingles were used towards the end of the nineteenth century in buildings of the "Queen Anne" revival style. (Kearney 1973:70).

It was the Dutch who first started manufacturing plain tiles in Natal and in 1851, James Smartfit and Henry Chatterton from Lancolnshire started manufacturing pantiles and Broseley tiles. A tile press, named the Wade and Cherry's tile Press was acquired in 1877 by the government brickworks. (Kearney 1973:70). Plain tiles were only used only in the early twentieth century.

Of the existing buildings of the early 1900s, Don House (Fig 3.64, 1903) and (Fig 3.65, 1904) have tiled roofs. With no drawings of details of tiled roofs in the the drawing collection, it is hard to determine the roof structure from the submission drawings of these houses. No battens are indicated on the drawings, probably due to the small scale. It appears that there was a roof substructure which, in turn, may have supported the battens and tiles (Fig 7.10) more clearly indicates this structure. (Fig 7.11) also exists as a house with a tiled roof. The drawing shows purlins placed at large intervals without indicating the finishing structure battens and tiles.

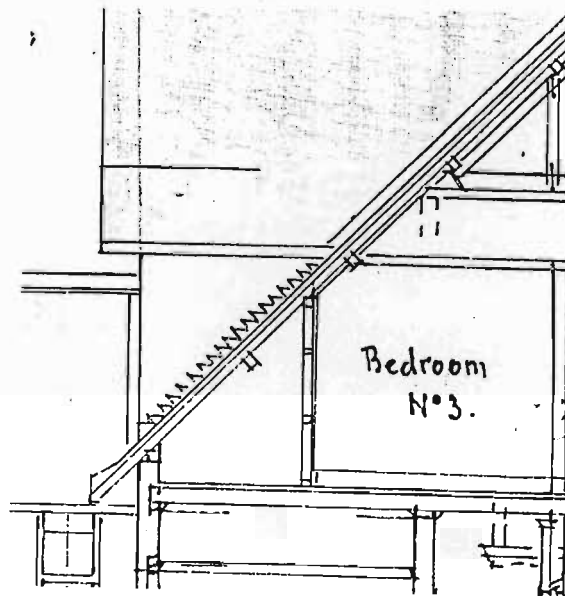


Fig 7.10 Tiled Roof Structure (Fig 3.71, 1905)

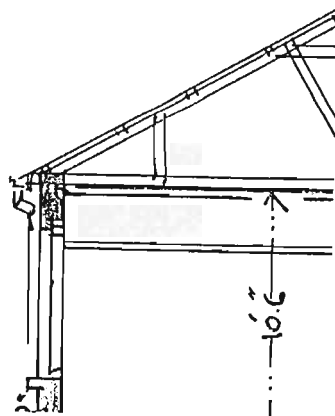


Fig 7.11 Tiled Roof Structure (Fig 3.75, 1913)

Fenestration

According to Kearney "Cheap doors and sliding sashes **windows**, principally of American manufacture, (c. 1870) had done away with the locally handmade yellow-wood types favoured by the Voortrekkers and early British Settlers." (Kearney 1973:68). Early external timber work was finished with "dark green paint or a dark timber stain", in earlier examples of domestic architecture but was later painted white. (Kearney 1973:68).

Glass

The size of window panes reflected the availability and latest technology of glass. **Small** panels of glass surrounded by **glazing** bars were replaced later by larger **expanses** of glass with the invention of plateglass. Plateglass, however, was expensive and only until large sheets of rolled glass were produced, did the use of smaller planes **decline**. "In Natal these (sheets of rolled glass) were imported up until the **twentieth** century. Their first application was in the centre or viewing portion of the window, and they were surrounded by narrow bands of glass, sometimes stained or frosted." (Kearney 1973:69). (See Chapter 5 on Style).

Originally, stained glass was brought from England and it was made with a handmade vitreous process. However, later in the nineteenth century, colour glass was factory produced. The development in processing "allowed even the poorest household to have a small surrounding panel of coloured glass in the doorway." (Kearney 1973:69).

The fanlight and sometimes the side lights of the front door, were where stained glass was usually found (Fig 7.12). The staircases (Fig 7.13) in villas/double storey and semi-detached houses were lit by large expanses of decorated, coloured glass. Leadlight or stained glass work "involved the basically simple mechanical process of cutting coloured glass into various shapes and holding them tightly together by means of soldered strips of lead known as cames." (Evans 1979:118).

"Antique glass" was used which had small bubbles, flecks and ripples which contributed to the texture of the glass. Patterns range from geometric to sometimes incorporating bird or flower motifs.

The specification for the semi-detached house (Fig 3.41, 1896) describes the "Front door and all external fanlights to be glazed with lead lights at 2/6 per sq ft."

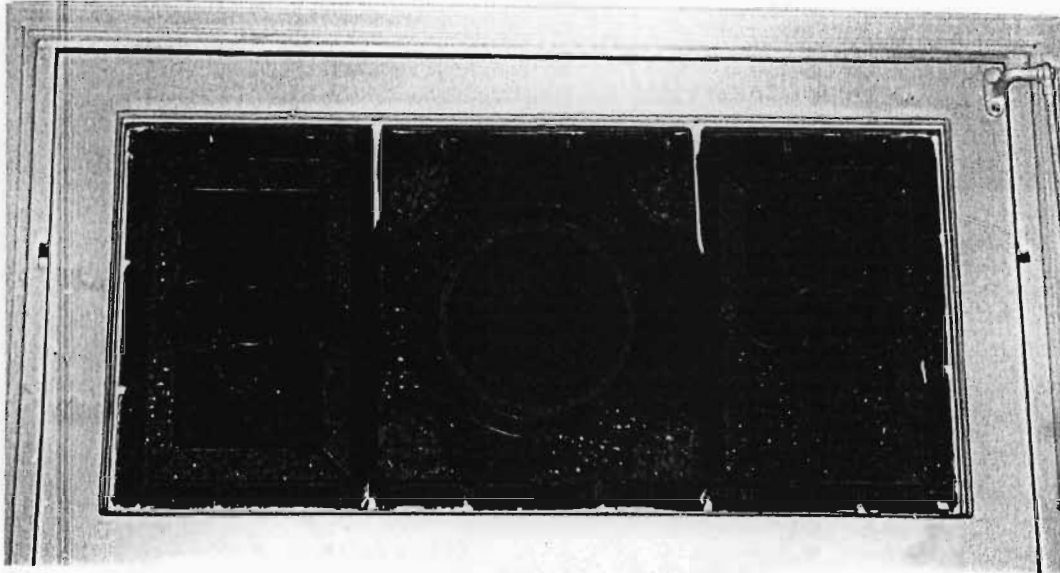


Fig 7.12 *Fanlight Detail to Front Door.*
(Fig 3.39 1896)

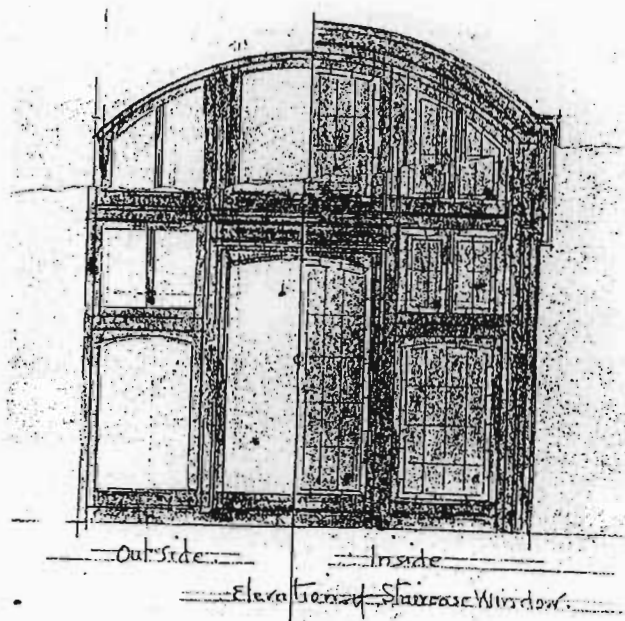


Fig 7.13 *Detail drawing of Staircase Window* (Fig 3.39, 1899)

Windows

The double-hung sash window (Fig 7.14 and Fig 7.15) was most commonly used during the Victorian, Edwardian and Union periods and worked on a pulley system of sash cords and cast iron weights. The casement window type first appears after 1900. (See Chapter 5 on Style).

Standard sash windows were available from building suppliers' catalogues and came in different configurations, for example, from two to twelve lights and in different sizes. In 1897, the cost of a 4-Light sash window, size 15 x 30, was 26/-. (Price List, 1897 : M.M. Steytler & Co., Strand Street, Port Elizabeth.)

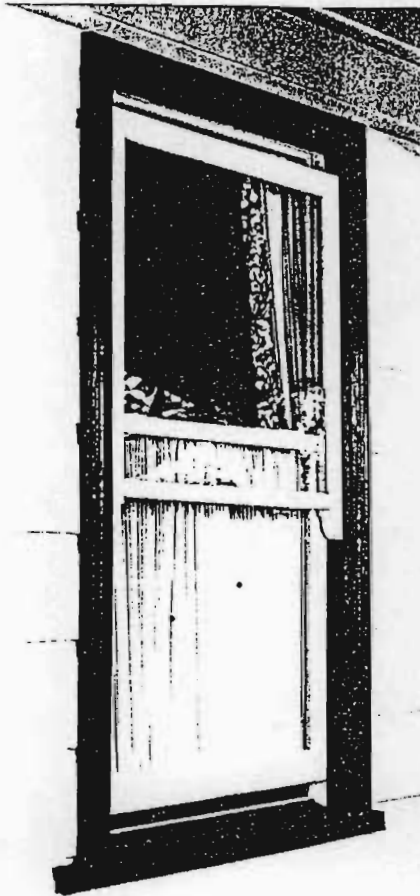


Fig 7.14

Typical Double-Hung Sash Window

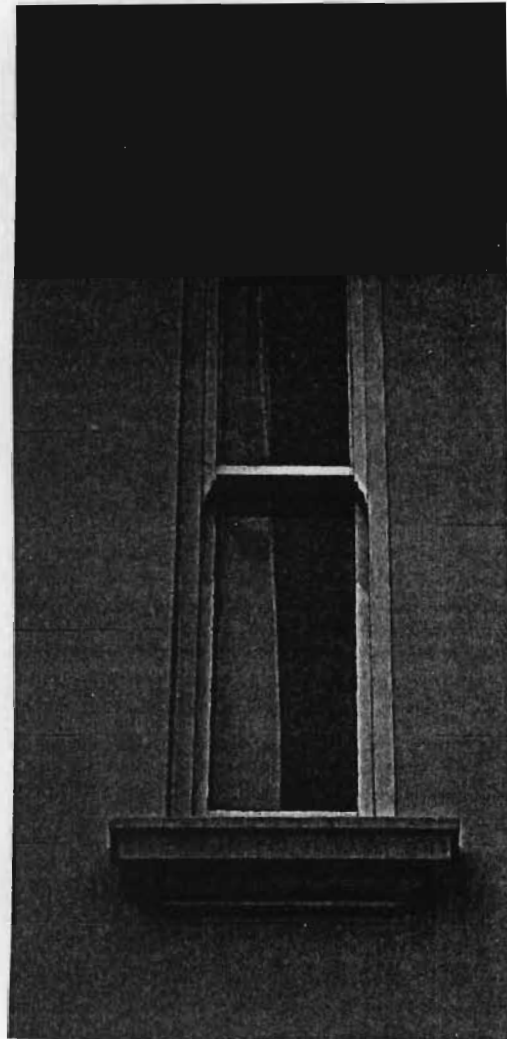


Fig 7.15

*Double-Hung Sash Window
(Fig 3.65, 1904)*

Shutters

Shutters (Fig 7.16 and Fig 7.17) are a commonly used feature in Street-Wilson's houses and consisted of "two leaves, each composed of a light frame filled with louvres set on a slant. Window shutters contained a top, middle and bottom rail .." (Evans 1979:80). The shutters were held back to the wall by shutter flaps.

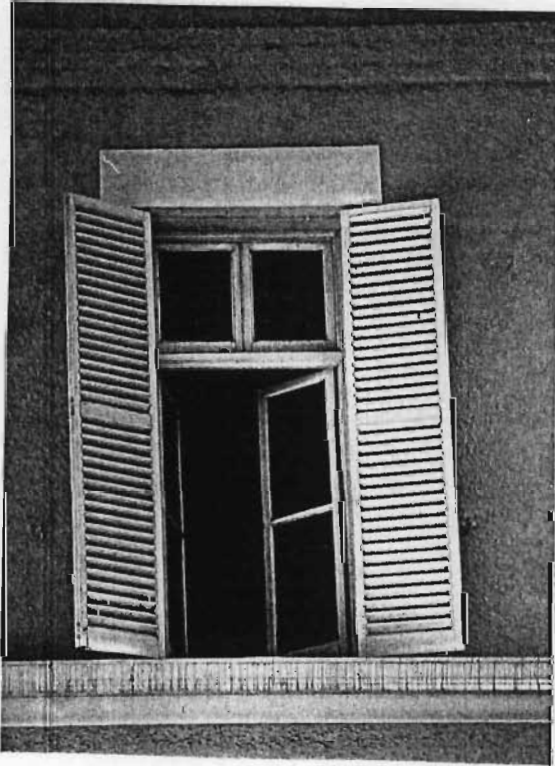


Fig 7.16
Window Shutters (Fig 3.35, 1895)

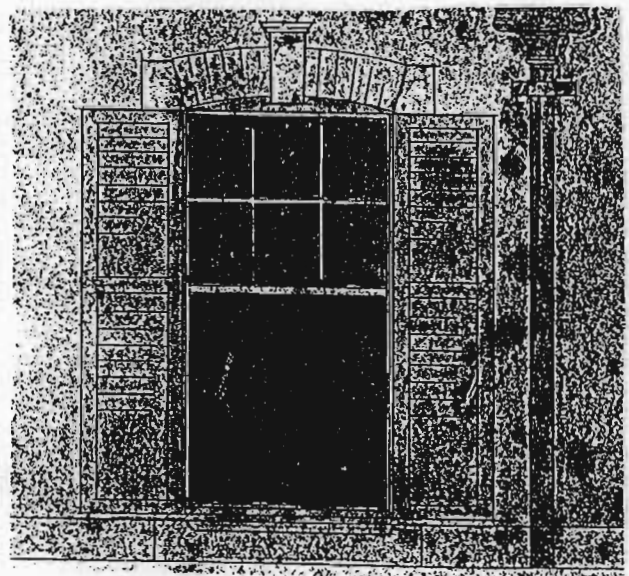


Fig 7.17 *Drawing Detail of Sash Window with Shutters (Fig 3.46, 1898)*

Bay Windows

The splayed bay window was typical of the Victorian era (Fig 7.18) where as the square or orthogonal bay was common after 1900 (Fig 7.19). (See Chapter 5 on the Bay Window)

The specification (Fig 3.41, 1896) describes the "Roof over bay window and staircase dormer to be covered and flashed with No 12 zinc with rolls 18" apart. Bay windows to have 2" circular pipe to main downpipe."

Examples of drawing details of bay windows can be found in drawings : (Fig 3.47, 1898, Fig 3.41, 1896, Fig 3.58, 1901, Fig 3.65, 1904, and Fig 3.30, 1894).

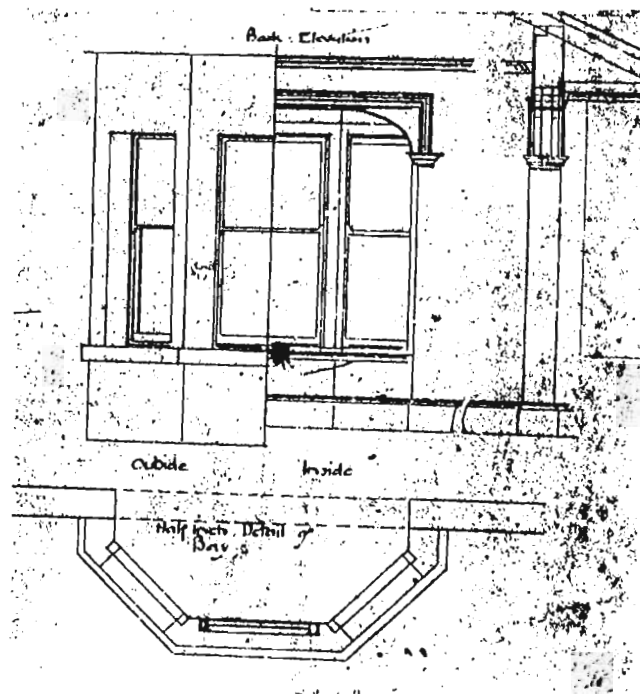


Fig 7.18 Drawing Detail of Typical Victorian Bay
(Fig 3.30, 1894)

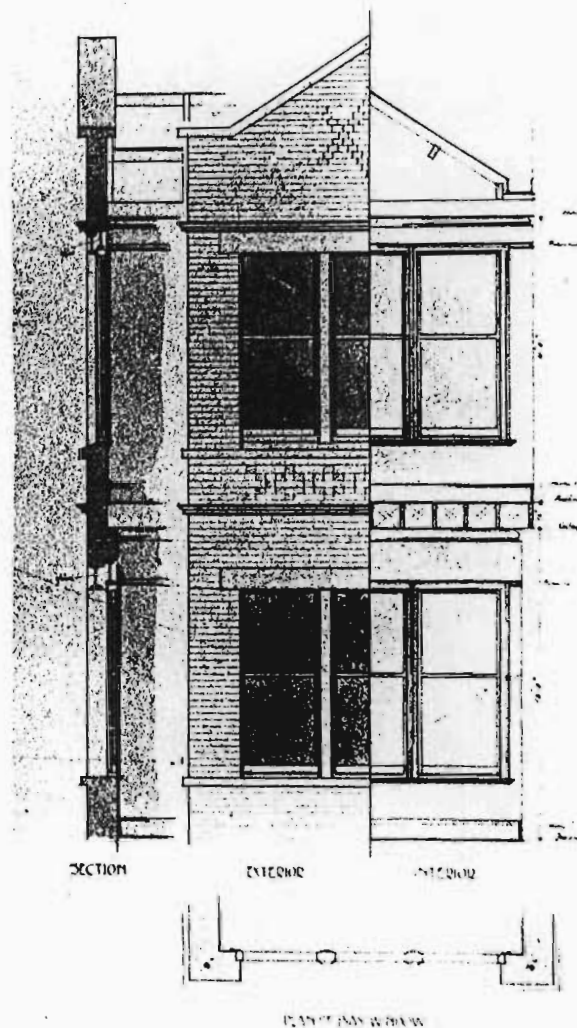


Fig 7.19 *Drawing Detail of Typical Edwardian Bay*
(Fig 3.65, 1904)

Common to both single storey and villas/double storey houses were the decorative use of paired brackets to the bay window. Examples of such brackets are found in examples (Fig 7.20 and Fig 3.61, 1902).

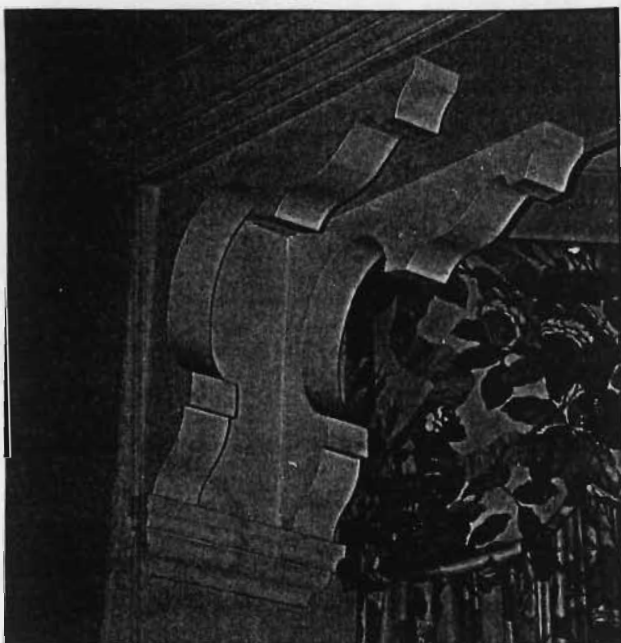


Fig 7.20 *Paired Brackets to the Bay Window.*
(Fig 3.37, 1896)

Doors

Depending on the size and complexity of the house, either standard doors were sourced from catalogues (Fig 7.21) from builder's hardware shops, or detail drawings were prepared for doors which were to be purpose made (Fig 7.22).

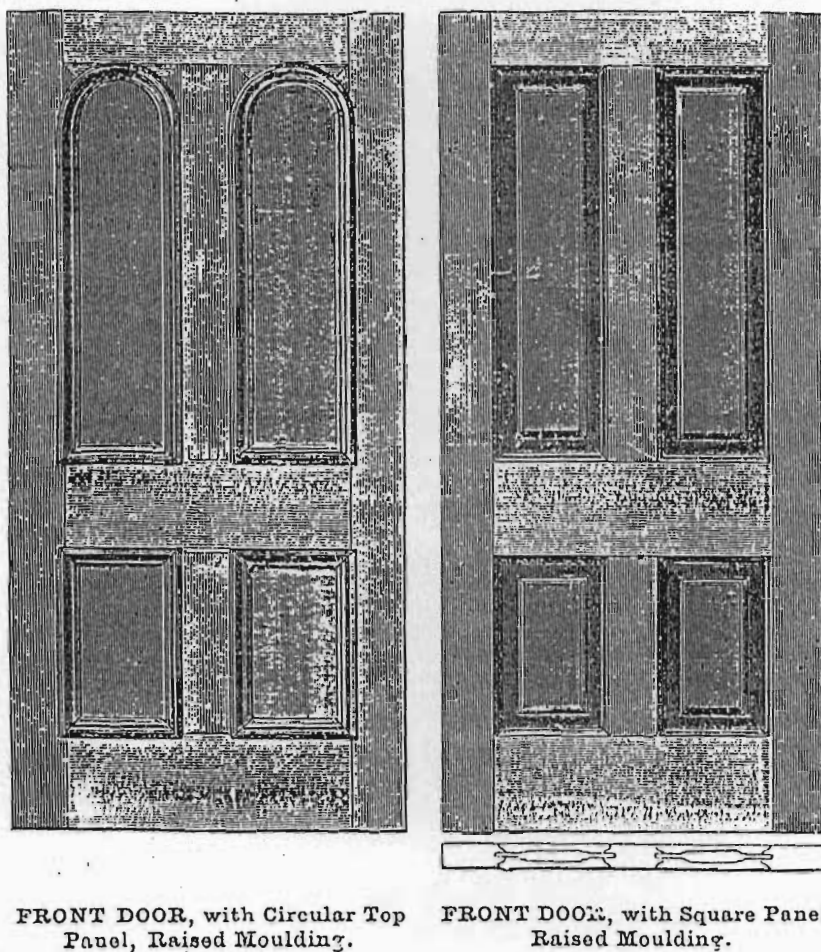


Fig 7.21 *Standard Doors from Price List of M.M. Steytler & Co., Strand Street, Port Elizabeth. 1897,*

Doors available from catalogues ranged from four panel, moulded two sides, to Half Glass to Margin Light, plain glass or Margin Light, coloured glass and ranged from 8/3 each to 30/- each in the price list, 1897, of M.M. Steytler & Co., Strand Street, Port Elizabeth.

A combination of the panels and lights was typical design for the front doors. The single door was used more commonly in single storey houses and the double door for villas/double storey houses. The doors were frequently combined with the use of a fanlight. The fanlight was positioned over the door and the name was "derived from the fan-shaped windows or "lights" which were introduced to domestic architecture prior to the Victorian period." (Evans 1979:90). The fanlights allowed for the flow of fresh air through the house, while still keeping the house safe from intruders. The air flow could be controlled by varying the size of the opening.

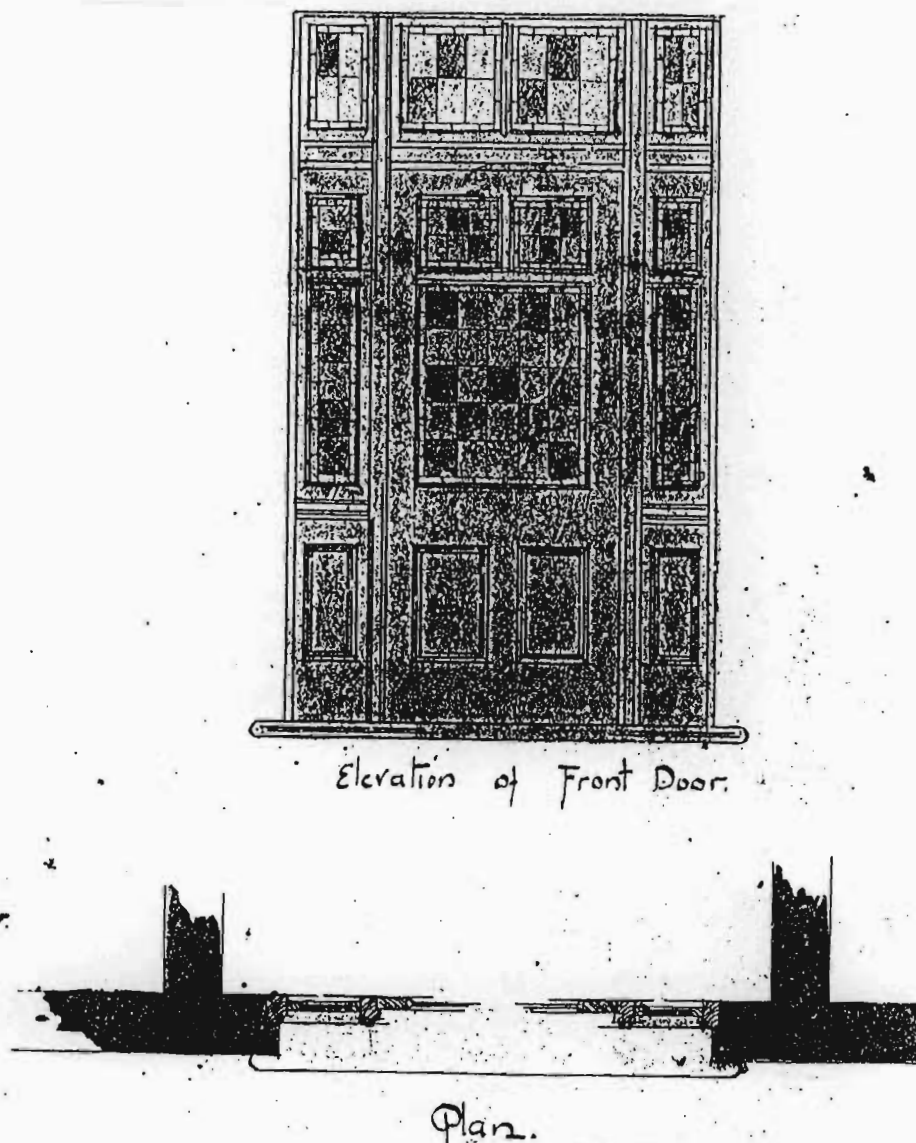


Fig 7.22 Drawing Detail of a Double Front Door

7.2 INTERNAL

Internal wall finishes were specified as "Paint/distemper : hall and landing, back verandah, kitchen, pantry larder, bathroom and linen cupboard to be twice painted with "Dureco"." Wallpapers : "Average 2/6 per roll. Allow for hanging." (Specification of Fig 3.41, 1896).

Floors

Floor Construction

Internal floor finishes evolved from a mixture of cow-dung, sometimes ox-blood and earth which was hand pounded until hard and compact, through to clay tiles and burnt bricks. Suspended timber floors (Fig 7.23) composed of joists supporting boarded timber were common by the 1870s and were made of either local yellow-wood or imported Oregon pine.

In the drawing collection, floors to the front verandah, to the back verandah, kitchen and bathroom were concrete floors and laid on ground level as specified: "Front verandah W.C. and bathroom floors to be covered with 6" x 6" tiles 6s 6d per square yard Durban cost set in cement to design. Back verandah, kitchen and kaffir house floors to finished with 3/4" 2 to 1 cement dressing trowelled smooth." (Specification of Fig 3.41, 1896). The level of the verandah floor was usually placed above the natural ground level and was accessed by a flight of steps.

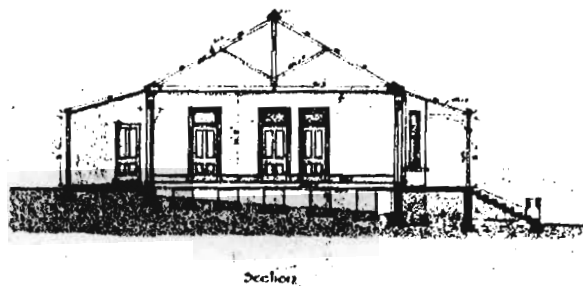


Fig 7.23 Typical section of a house showing the floor levels

In an example where the verandah floor is suspended above ground level, (Fig 7.24), corrugated iron is used as permanent shuttering to support a tiled, concrete floor.



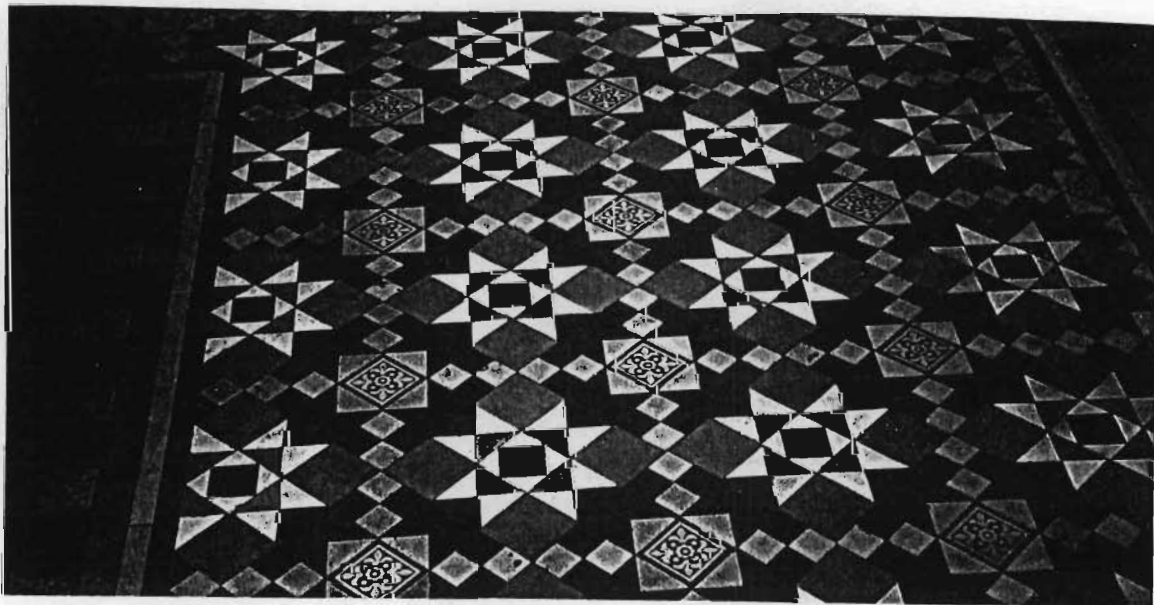
*Fig 7.24 Details of suspended verandah floor
using corrugated iron is used as permanent shuttering
(Fig 3.65, 1902)*

The main house floors were suspended floors with their height above the ground. This level was determined by the slope of the ground and by the building bye-laws of Durban, 1895, required that the floor be 2' above the natural ground level. The raised walls of the house, which supported the suspended floors, were often punctured by ventilators which allowed air to circulate under the building. This flow of air helped to cool the house.

The main floor was constructed with "Joists 15" centres and kept 1 1/2" from the wall for the ground floor and upper floor joists to be 11" x 2", 15" centres well tarred at ends.." and the floors were "4 1/2" x 7/8" tongue and grooved, cleaned off on completion. Secret nailing. 3" margin around all hearths." (Specification of Fig 3.41, 1896).

Floor Finishes

In the larger houses, especially the villas, verandah floors, and occasionally the entrance halls and passages, were decorated with "earthenware tiles, made by the encaustic process and known as tessellated tiles or tesserae .." (Evans 1979:108) (Fig 7.25 and Fig 7.26). Encaustic tiles originated from medieval England and were formed by "A stamp bearing in a design in relief was impressed upon them, leaving an ornamental pattern on the tile. Before fixing, the depression would be filled with a clay of another colour." (Guedes 1979:202).



7.25 Detail of Encaustic or tessellated tiles (Fig 3.51, 1898)

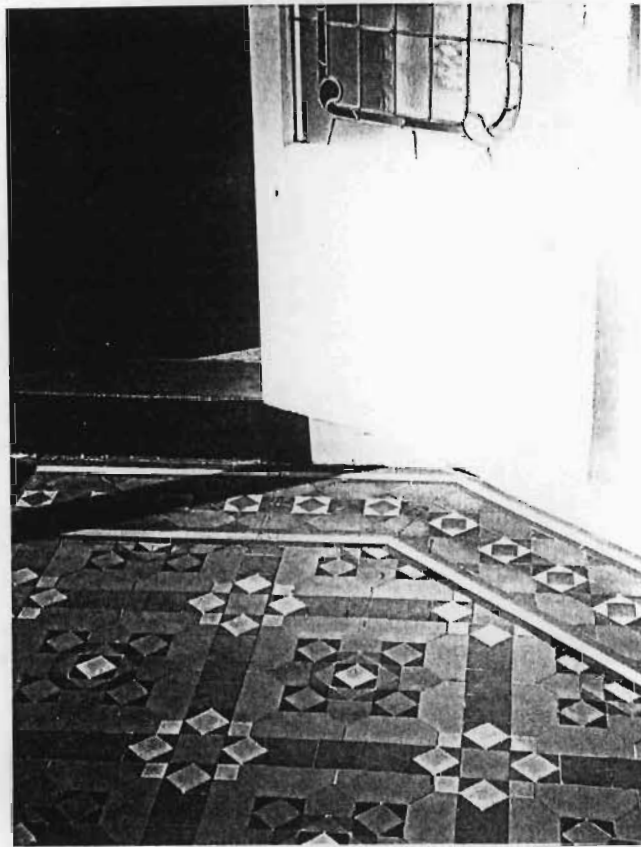


Fig 7.26 Detail of Encaustic or tessellated tiles (Fig 3.64, 1903)

In England in the 1880s, French parquetry floors (Fig 7.27) were fashionable and were found in Natal in the late 1890s. (Kearney 1975:67). Detail drawings of patterns for the parquetry floors are seen in Street-Wilson and Fyfe's design for A. Findlay (Fig 3.34, 1895).

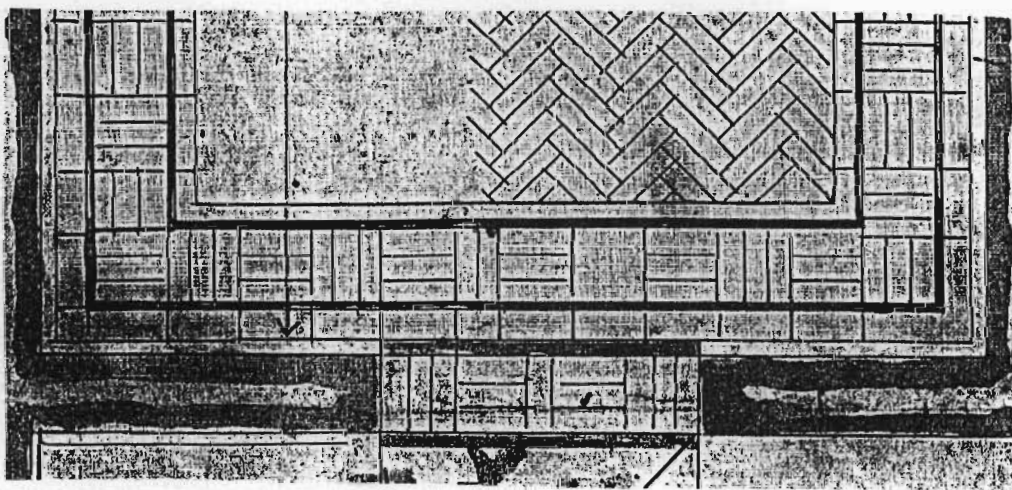


Fig 7.27 Detail Drawing of Parquetry Floors (Fig 3.34, 1895)

Ceilings

Construction

In the semi-detached house (Fig 3.41, 1896), ceilings were specified as "6" x 1/2" tongue and grooved and double beaded. The ceiling over the ground floor to be plugged with sawdust at least 3" thick, laid on brown paper." (Fig 3.41, 1896). In house examples such as Mrs Mitchell's house in Essenwood Road, (Fig 7.28) and (Fig 7.29), the drawing room ceilings are decorated with a geometric pattern of raised wood with plaster infill panels.

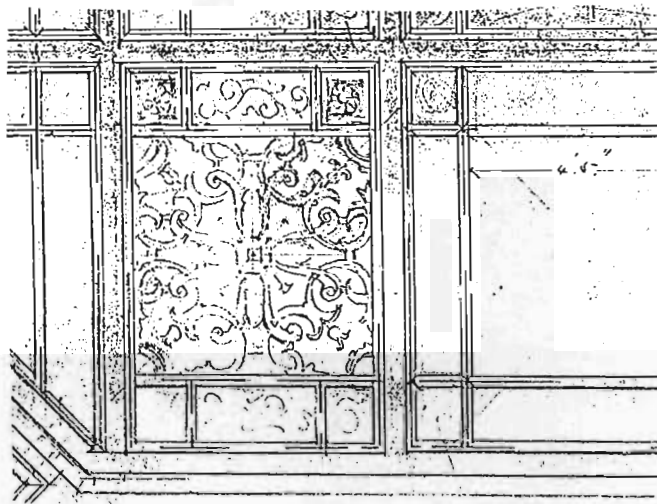


Fig 7.28 Detail of Ceilings to Drawing Room (Fig 3.35, 1895)

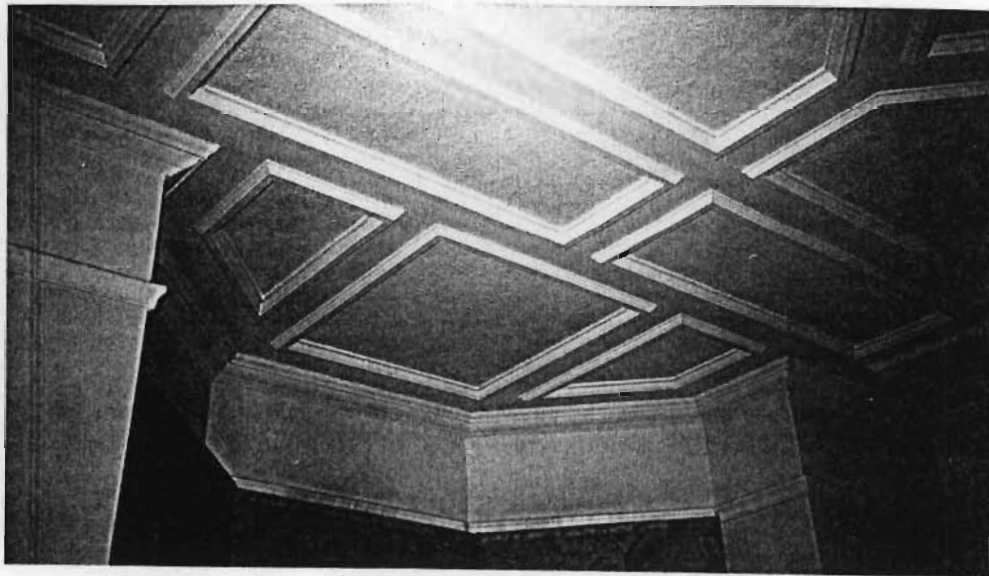


Fig 7.29 Detail of Ceilings to Drawing Room (Fig 3.39, 1898)

Decoration

Plaster "of the nineteenth and early twentieth centuries consisted of a mixture of slaked rock lime and sand, with animal hair added to bond the whole together." (Evans 1979:66). For areas which required detailed ornamentation, Plaster of Paris was used. Factories produced ornamentation such as ceiling roses, ornamental cornices, festoons and medallions which could be ordered from builders' catalogues (Fig 7.30).



Fig 7.30 Detail of ceiling Pattern (Fig 3.35, 1895)

Moulded cornices were used in house types with the more ornate cornices used in large Villas and double storey houses. "Most cornices were made on the job during the Victorian and Edwardian eras, "run" in wet plaster by highly skilled tradesman either on a workbench or against the ceiling." (Evans 1979:69). Cornices were also imported were specified in the drawing room, dining room and hall in the semi-detached house (Fig 3.41, 1896) and were to "have 6" approved moulded imported. Elsewhere 4" imported."

Decorative plaster was often applied to the arches which separated the entrance hall from the passage in house examples. There are detailed drawings of cornice profiles in the drawing collection (Fig 7.31). Picture rails, dado rails, moulded cornices and decorated wall ventilators (Fig 7.32) are typical features found in the more elaborate interiors. For example, Dick's house in Newcombe Place (Fig 7.33). Skirtings were specified as "Ground floor to have 9" stock moulded. Upper floor to have 7" ditto." (Specification Fig 3.41, 1896).

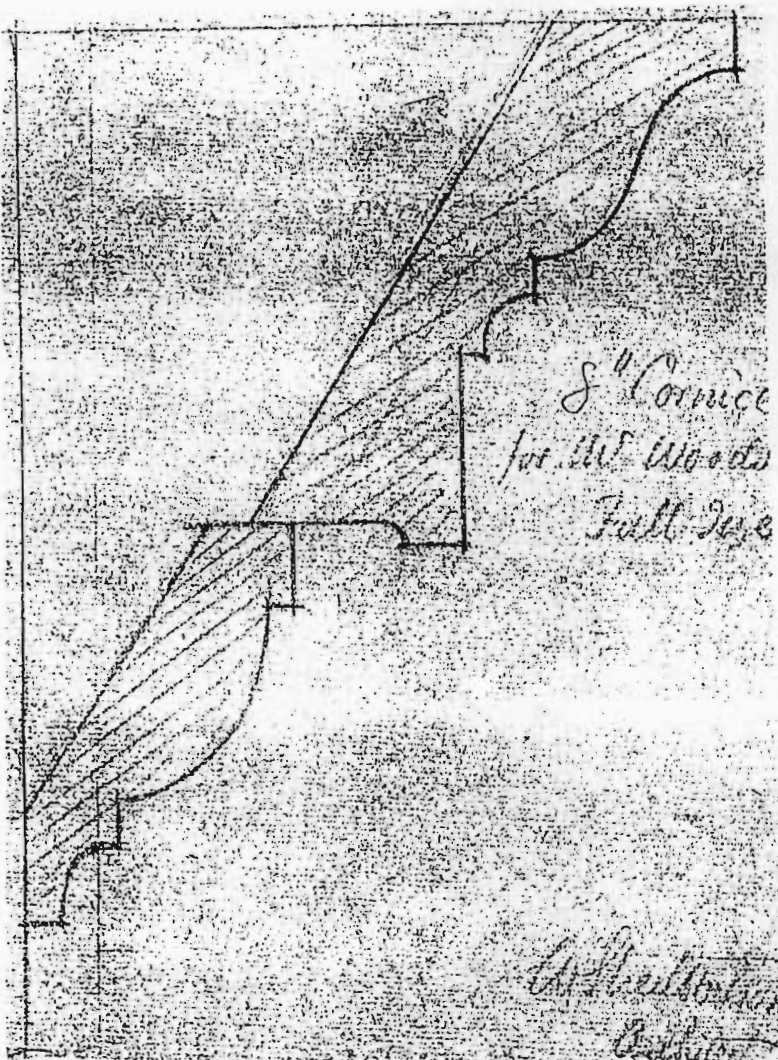


Fig 7.31

Drawing Detail of Cornice (Fig 3.45, 1898)

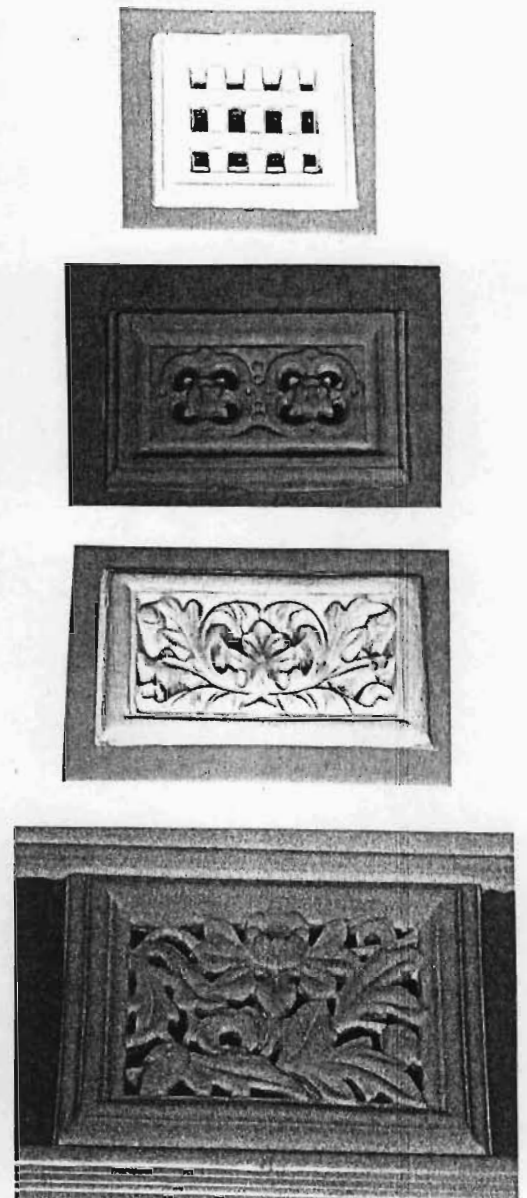


Fig 7.32

Details of Decorative Wall Ventilators

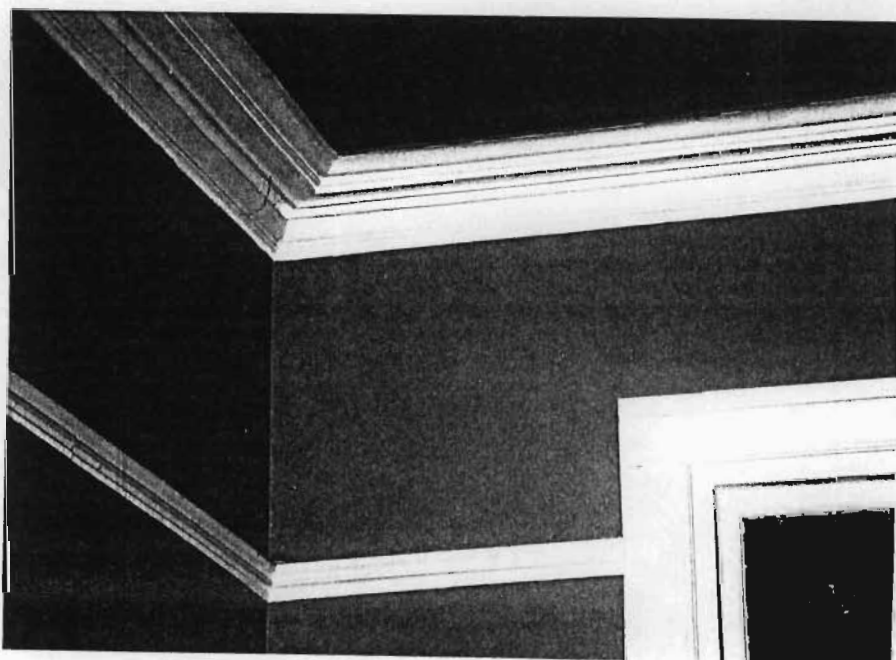


Fig 7.33

Detail of Decorative Mouldings. (Fig 3.61, 1902).

Staircases

In the villa, semi-detached and double storey houses the staircase (Fig 7.34) was an important focal point of the hall. It was elaborately detailed with decorated newel posts, turned balusters and carved handrails (Fig 7.35). The grand staircase related to the hall was evident right into the twentieth century until the Union period, when from 1910 onwards, "the art of staircase design began to fall into decline." This could be attributed to change in tastes and economic restrictions. (Evans 1979:74).

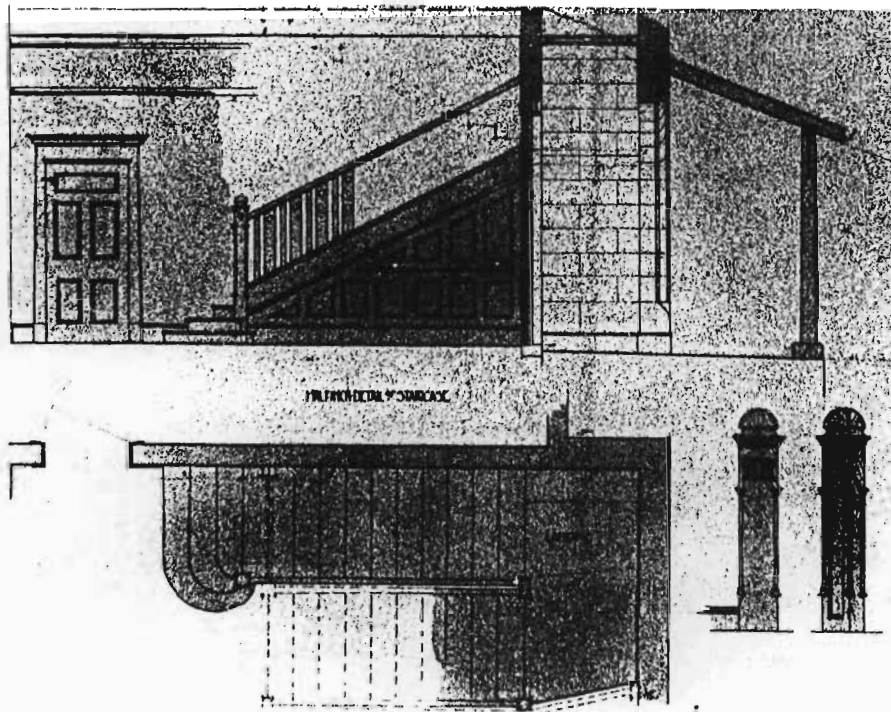
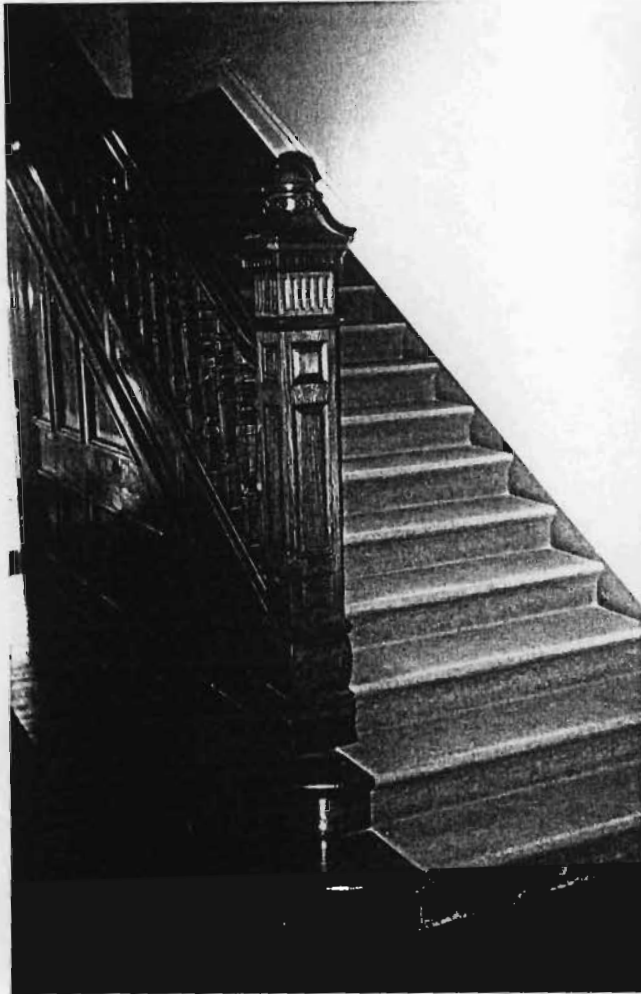


Fig 7.34 Detail Drawing of Staircase (Fig 3.65, 1904)



*Fig 7.35 Details of Newel Posts to Staircase
(Fig 3.64, 1903 and Fig 3.35, 1895)*

The specification for the stair to the semi-detached read : "the staircase to be constructed of selected material for varnishing., and to be properly glued, blocked and bracketed together with all bearers, pitched pieces & complete, and to be accurately worked to full size details. 1 1/2" wall and 2" outer strings grooved for treads and risers. 1 1/4" rounded node treads, 1" risers grooved into same. Construct wheeling and scroll steps at the foot of the stair as shown. Newels, pitch pine, turned and moulded out of 4" x 4". Half newel at wall. Handrail moulded out of 3" x 3" pitch pine. Balusters turned out of 1 1/2" x 1 1/2" pitch pine. Outer string and landing trimmer to be cased with 3/4" pitch pine casing with mouldings planted to top and bottom." (Specification, Fig 3.41, 1896).

Fireplaces

It is the combination of grate, flue, chimney stack and chimney pot which contributes to the efficiency of the fire (Fig 7.36). The importance of these in fireplace design was discovered by Count Rumford (1753-1814) in his essay titled "Of Chimney Fireplaces, and Principles of Chimney-construction".

Rumford's recommendations were :

- A sloped fire-back

- A streamline lintel to lead the room air into the flue without hindrance;

- A deep, narrow throat, centrally placed above the grate. The throat to be 100mm (4in) wide and from 150 to 200 mm (6 to 8 in) deep with a rounded entrance;

- A flat smoke-shelf, level with the top of the throat, to stop soot and rain;

- A small smoke chamber;

- Splayed sides and a definite narrowing of the fireplace towards the back.

- The flue to run from the smoke chamber to the top of the chimney in as straight a fashion as possible with any unavoidable bends being gentle and smooth.

(Quoted by Valentine Fletcher, "Chimney Pots and Stacks", Centaur Press, Fontwell, Sussex, 1968 from (Evans1979:86)).

With some modifications, namely the increase of the flue from 230 mm square to 300mm square, Rumford's principles are still adhered to today.

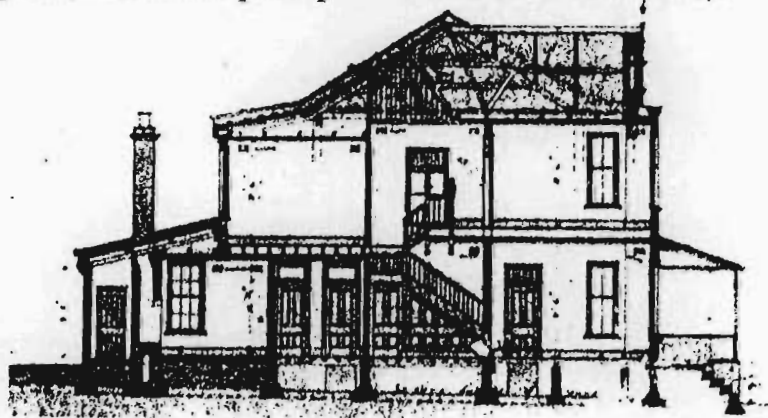


Fig 7.36 Section through Kitchen Fireplace (Fig 3.39, 1896)

Mantlepieces

Precast-iron register mantles and grates were readily available from merchant and builders' stores such as James Payne Stores who advertised mantles and grates in the *Natal Mercury* (Fig 7.37). According to the author of the 1909 Catalogue of the Sydney merchants F. Lassetter and Company, "for the comfort of a house a good grate is very necessary." (Evans 1979:84). They ranged from simple designs with curved mantles to more elaborate models with tiled side panels (Fig 7.38).

JAMES PAYNE,
Carpenter,
JOINER AND CONTRACTOR.



Mantles and Grates, of various patterns and designs; large assortment of Newest and Fashionable Wall Papers; Oils, Paints, Glass, and Tiles (Ornamental and Plain); Portland Cement; Keen's Cement; Lime; large quantity of Ironmongery, Chimney Pots, Mangrove Poles, Magnetic and Damp Wall Paints, Gypsoline, and Oxide of Iron, &c., &c.

AND AT LOWEST MARKET PRICES. 7494 f 13.

Inspection invited and a Trial solicited.

Fig 7.37 Cast-iron register grate

Illustration: Natal Mercury, November 12, 1894.

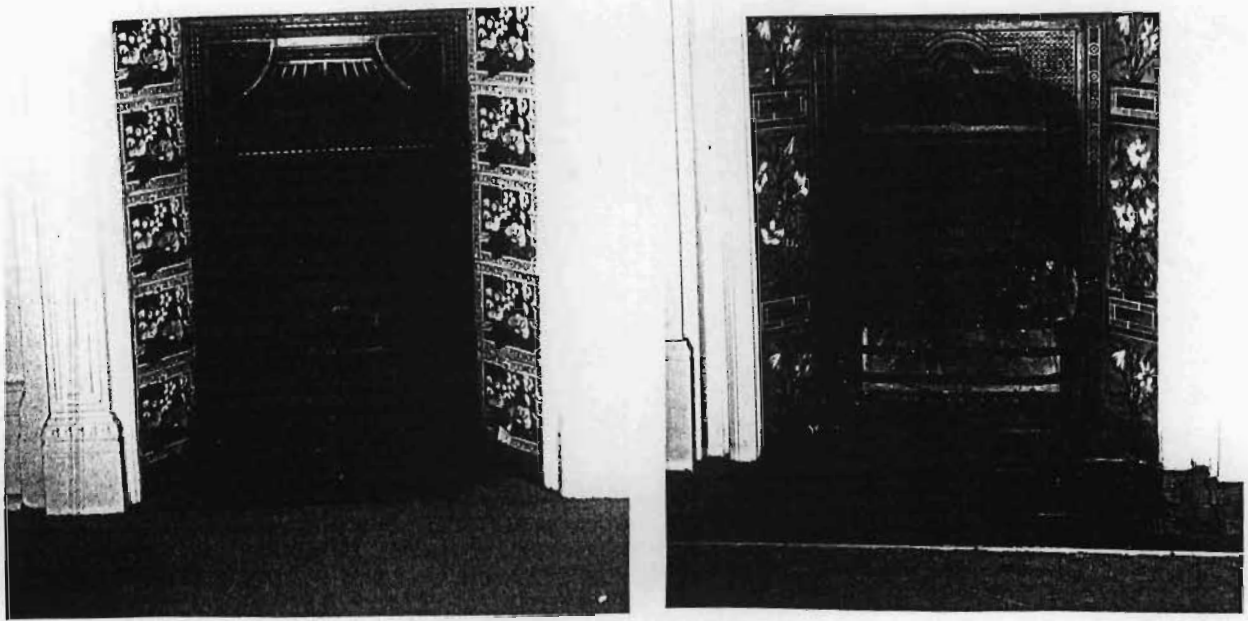


Fig 7.38 Cast-iron Register Grate (OD 581, 1904 and Fig 3.35, 1895)

Timber mantelpieces were a more economical choice and provided a medium which allowed for a design input (Fig 7.39, Fig 7.40 and Fig 7.41). Marble was used in combination with timber and where the cost of marble was prohibitive, timber was painted, invariably, to imitate marble. In Victorian and Edwardian homes, marble mantels, which added a certain amount of prestige to a home, were occasionally used. Overmantles were popular in the Victorian era and were "decorated with mirrors and turned and carved wood which added an ostentatious air. Mantelpieces in upstairs rooms were often of the same material as those in the dining and drawing room, but were normally carved and finished to a lower standard." (Evans 1979:84).

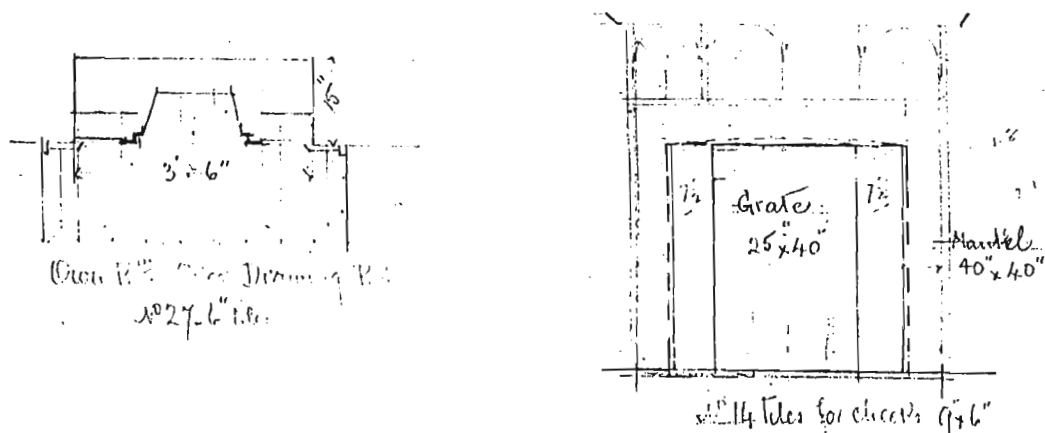


Fig 3.39 Sketch Details of Firegrates and mantles (Fig 3.39, 1898)



Fig 7.40 Details of fireplaces (Fig 3.65, 1904)

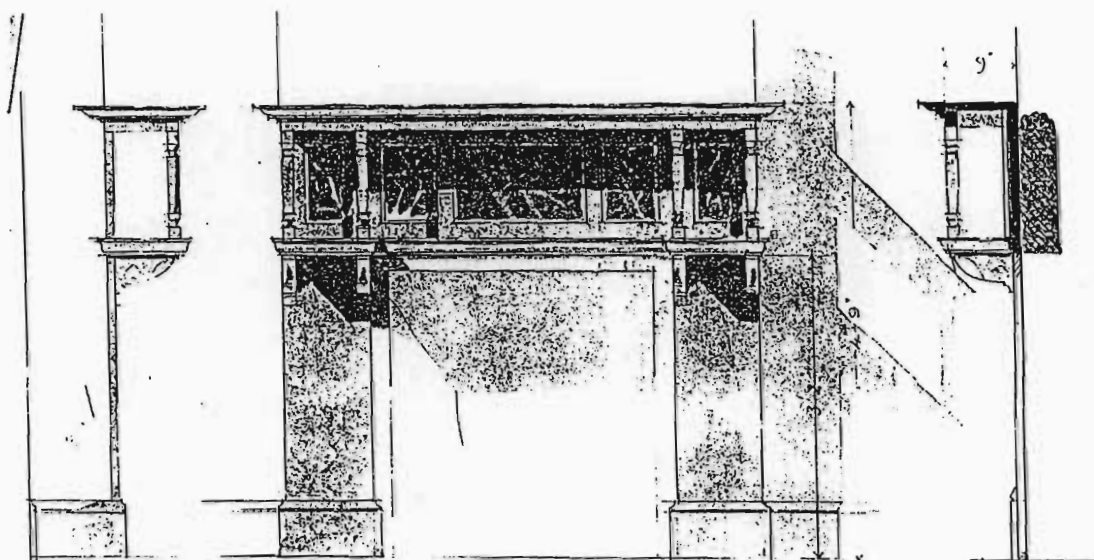


Fig 7.41 Drawing Details of fireplace (Fig 3.67, 1904)

The Chimney and Chimney pots

The chimney was often elaborately decorated and provided a important visual contribution to the roofline of the house. Generally, the more simple the house, the less elaborate the chimney was and vice-versa.

"Chimney pots are not mere ornaments but make a significant contribution to the overall efficiency of a domestic fireplace and chimney system. Their shape tapers towards the top, and serves to increase the velocity of escaping smoke and gases, and to strength then the updraught. The comparatively small outlet area at the top reduces to a minimum the area acted upon by the wind, lessening the effect of downdraughts and minimising entry of rain." (Evans 1979:89). Chimney pots were available from catalogues for example the British Clayware Federation which displayed 500 varieties of chimney pots (Fig 7.42). (Evans 1979:89). Where fireplaces are placed together in the house, they are expressed externally on the roof as grouped stacks, with a chimney pot for each flue.



Fig 7.42 Detail of Chimney Pots

Evans described the use of cowls (Fig 7.43) "A metal fin caught the wind and blew the cowl around so that the smoke and gases moving up the flue were ejected from the chimney in the direction in which the wind was travelling. The action of the wind moving past the cowl was intended to create suction and increase the updraught of the flue. Cowls were developed to overcome problems resulting from downdraughts or high pressure zones at the top of chimneys." (Evans 1979:89).



Fig 7.43 *Detail of Cowls to Chimneys*

The specification (Fig 3.41, 1896) for fireplaces reads : "Construct arches in cement over all fireplaces on 2 1/2 in. by 3/4 in. wrought iron chimney bars. Form chimney stacks as shewn and well core and parge flues of same. Provide set and flaunch No. 3 chimney pots of approved design. Allow the sum of 20 Pounds Durban cost for No. 3 mantels, grates, and tile hearths. Allow for setting and laying hearths. Form hearth in Kitchen 12 in. above floor."

The Wood-and-Iron House.

There are three examples of wood-and-iron houses in the drawing collection. These include three identical houses in Princes Street (Fig 7.44), a pencil sketch showing the construction of the house (Fig 7.45) and the third, a wood-and-iron house for J.Q. Coventon (Fig 3.37, 1896). The last example is of interest as it was designed as a wood-and-iron house but built as a brick house demonstrating that the house type and style was important irrespective of the building material.

Amended bye-laws of 1903, define a "wood and iron building" as "any building where the external walls are constructed of wood-framing covered with iron" (N.G.G. 1903:1675) and a "brick and wood building" means any building where the external and party walls are built of timber-framing and brick." (N.G.G. 1903:1675). The bye-laws state that the "timber framing of the walls and the roofing shall be of sufficient size, properly put together, and covered with good corrugated iron..." and that the structure be "raised at least twelve inches above the general level of the surrounded ground supported on good substantial foundations." (N.G.G. 1903:1676).

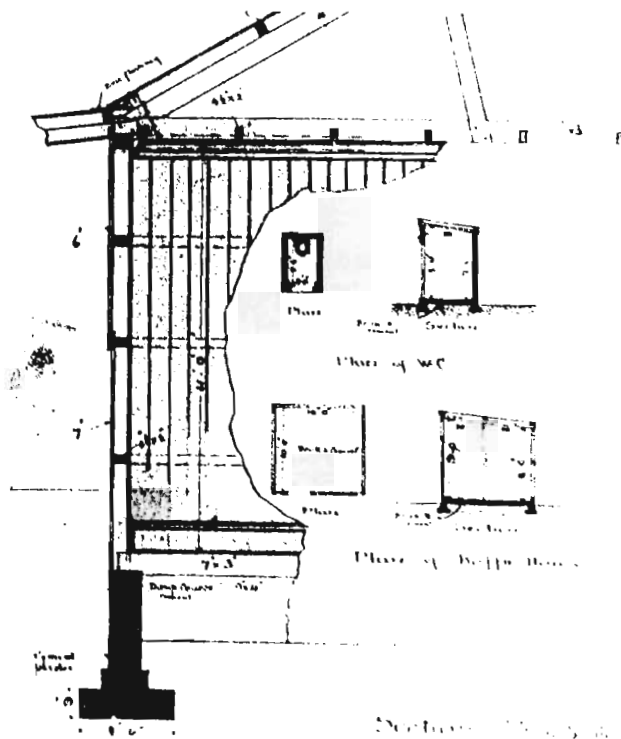
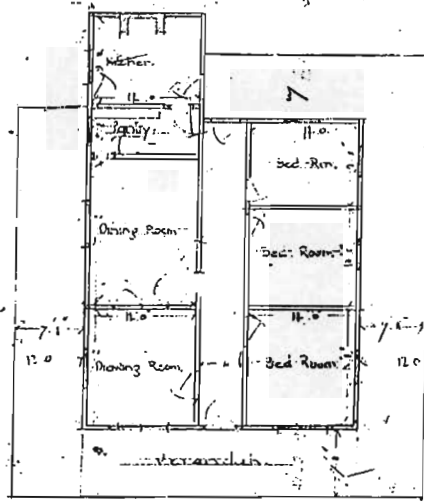


Fig 7.44 Drawing of Section through Wood-and-Iron House

(Fig 3.36, 1902)



Rough Sketch of Proposed Wood & Iron

Rafters 3×2
 Sleepers 4×3
 Floor Joists $4 \frac{1}{2} \times 2$
 Ceilings " $4 \frac{1}{2} \times 1 \frac{1}{2}$
 Rafters $1 \frac{1}{2} \times 2$
 Surlins 3×2
 Sills 7×2
 Sillies 9×1
 Sillies $7/8$
 Sillies $6 \times 1/2$
 Sillies 7 molded
 Cornices 4
 Architraves 3
 24 Gauge Iron
 15 Redwood

Col Martin

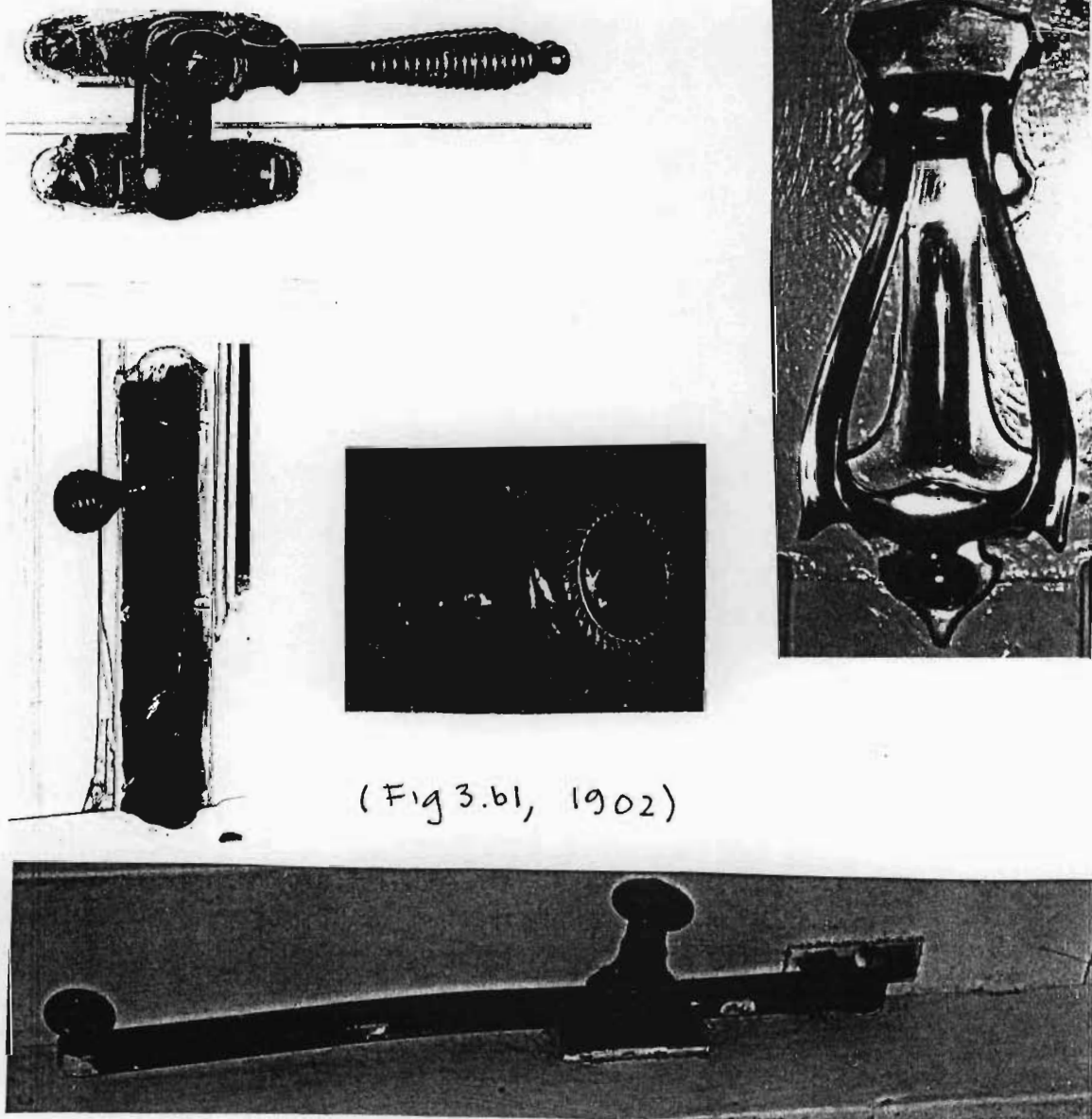
For 15 ft. overhang
 4×4 Post
 $1 \frac{1}{2} \times 3$ + Plates
 3×3 Brackets
 $7 \times 2 \frac{1}{2}$ Rafters - 4' 0" apart
 17 Sills - $9 \times 1 \frac{1}{2}$
 $2 \times 1 \frac{1}{2}$ floor joist overhang

@ building log
 $10 \frac{1}{2}, 11 \frac{1}{2}$ 4 ft. long as 7 ft. long
 2, 5. half gird
 3, 5. Trunk line can't work
 $7/12$ light current sashes

Fig 7.45 Rough Sketch of Wood-and-Iron House for
 Col. Martin (undated) (OD 508)

HARDWARE

Cast iron, mild steel, copper and brass were materials commonly used in hardware fitted to Victorian, Edwardian and early Union houses. Hardware tends to be less ornate and decorative towards the Union period, following the changes in economic and social conditions in Natal. Hardware included door furniture such as locks and keys, bolts, nails, screws and hinges, door knobs, handles, finger plates and knockers, window furniture such as finger pulls, sash weights and fasteners, shutter flaps and fanlight openers to fanlights above doors and windows (Fig 7.46).



(Fig 3.61, 1902)

Fig 7.46 Typical Details of Hardware.

LIST OF ILLUSTRATIONS

Abbreviations

N.M. : The Natal Mercury

U.N. : University of Natal ; The Barrie Biermann architectural library.

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Fig 7.2 :	Foundation Plan. (1900)	OD 129 (U.N.)
Fig 7.3 :	Roof trusses	Author
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Fig 7.5 :	Verandah Roof. (1899)	OD 641 (U.N.)
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Fig 7.7 :	Verandah Post Details. (1902)	Author
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Fig 7.14 :	Typical Double-Hung Sash Window	Evans 1979:78
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Fig 7.17 :	Drawing details os Sash Window with Shutters. (1898)	OD 621 (U.N.)
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Fig 7.42 :	Detail of Chimney Pots	Evans 1979:88
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Fig 7.44 :	Drawing of section through Wood-and-iron House. (1902)	OD 602 (U.N.)
Fig 7.45 :	Rough Sketch of Wood and-iron House for Col. Martin	OD 508 (U.N.)
Fig 7.46 :	Typical Details of Hardware. (1902)	Author

CHAPTER EIGHT

SERVICES

8.1 COMFORT

In the period reviewed, 1889 to 1913, building services depended on the development of power sources. The open fire and stove provided the main means of heating, open windows for ventilation and lamps and candles provided the artificial lighting to homes.

8.1 i Fireplaces

Since the moderate to hot climate of Durban did not necessitate a fire as a heating source, the fireplace was viewed as a status symbol of luxury. (See Chapters 5 and 7 on Fireplaces). Aside from its use as an occasional heating source, the fireplace provided a limited amount of cross ventilation to a room in the hot, humid season by creating air movement from updraughts through the chimney.

8.1 ii Stoves/Ranges for cooking

Stoves or enclosed fires were found in the kitchen. The enclosed stove was developed in Europe in the 15th century and went through several developments of efficiency. The freestanding iron stove was designed by the Englishman, William Strutt (1756-1830) and allowed the distribution of heated air by natural convection. (Fig 8.1)

In all plans in the collection of drawings, an external recess is shown in the wall of the kitchen and fireplace and chimney stack are expressed on the external wall. The freestanding stove or range was then fitted into the recess with its flue lining the chimney stack. (Fig 3.72, 1909) is the only example where the kitchen fireplace is placed against an internal wall.

Different type of stoves seen advertised in the Natal Mercury furniture sales included the Mistress Stove No. 7, Mistress Stove No. 9, and the Vanguard Stove.

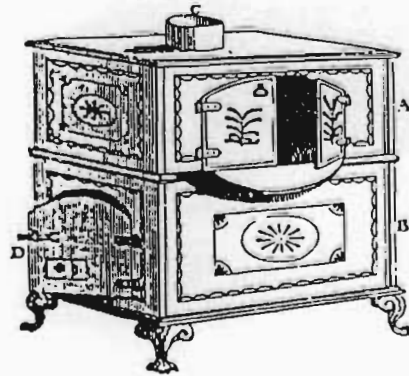


Fig 8.1 *Typical Cast-Iron Stove with an Oven*

Stoves or Ranges and hot water supply

Until the nineteenth century hot water for washing was obtained from kettles and pans heated over a fire. The oven cooking area in the kitchen became associated with the heating of hot water (Fig 8.2). "The original kitchen range had, at the side of the fire, a boiler which had to be filled by hand, and was provided with a tap to draw off the hot water." (Billington & Roberts 1982:356).

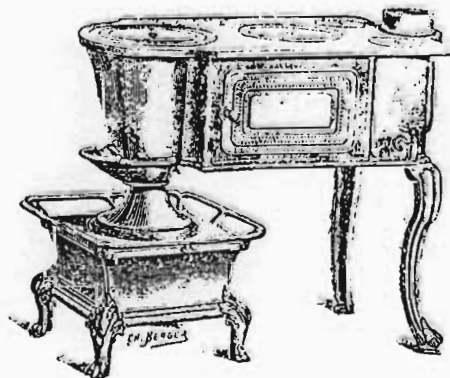


Fig 8.2 *Combination Water Heater and Cooking Range*

(1897)
- 426 -

8.1 iii Water supply

"Piped hot water supplies were introduced in about 1855. Both independent boilers **and** ranges were used." (Billington & Roberts 1982:357). Within the piped hot water system, the use of a tank, later evolved to the use of the cylinder system where the "boiler flow and return pipes are connected to the storage tank." (Billington & Roberts 1982:358).

In 1884, a system was developed whereby an indirect water supply (Fig 8.3) was provided from a high pressure coil in the kitchen range. In England, in May 1887, the Corporation of Birmingham provided bye-laws governing the use of "bath apparatus".

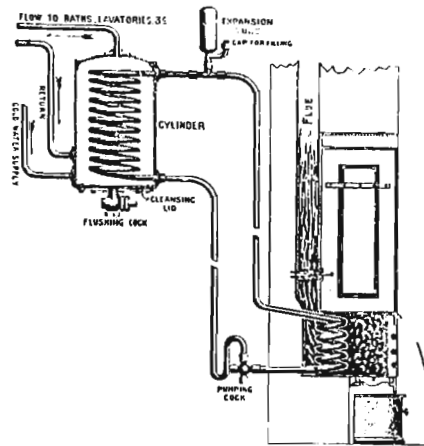


Fig 8.3 *Indirect Water Supply*
(provided from a high pressure coil in the kitchen range).

Arts and Crafts Architect J.J. Stevenson in his two-volumed book titled "House Architecture" describes "a **straight** forward, direct system heated by the kitchen fire, with flow and return pipes and branches to the various taps for baths, sinks and housemaids' closets." (Fig 8.4) (Guedes 1979:210).

In Natal, the first water works were opened on Queen Victoria's Jubilee in 1887 with an ornamental fountain positioned in the Market Gardens. The intention was that a "good service and a serviceable supply of water be provided to Durban." The Natal Mercury, Friday July, 1887.

The earliest drawing in the drawing collection, indicating the use roof tanks, is found in the drawing collection in 1895 (Fig 3.34). Others include (Fig 3.40, 1896 and Fig 3.45, 1898). In the drawing of Captain Reeves house (Fig 3.51, 1898), an 80 gallon C.I. tank is located in the roof space. No indication is given on any of the drawings as to the type of water heating apparatus used.

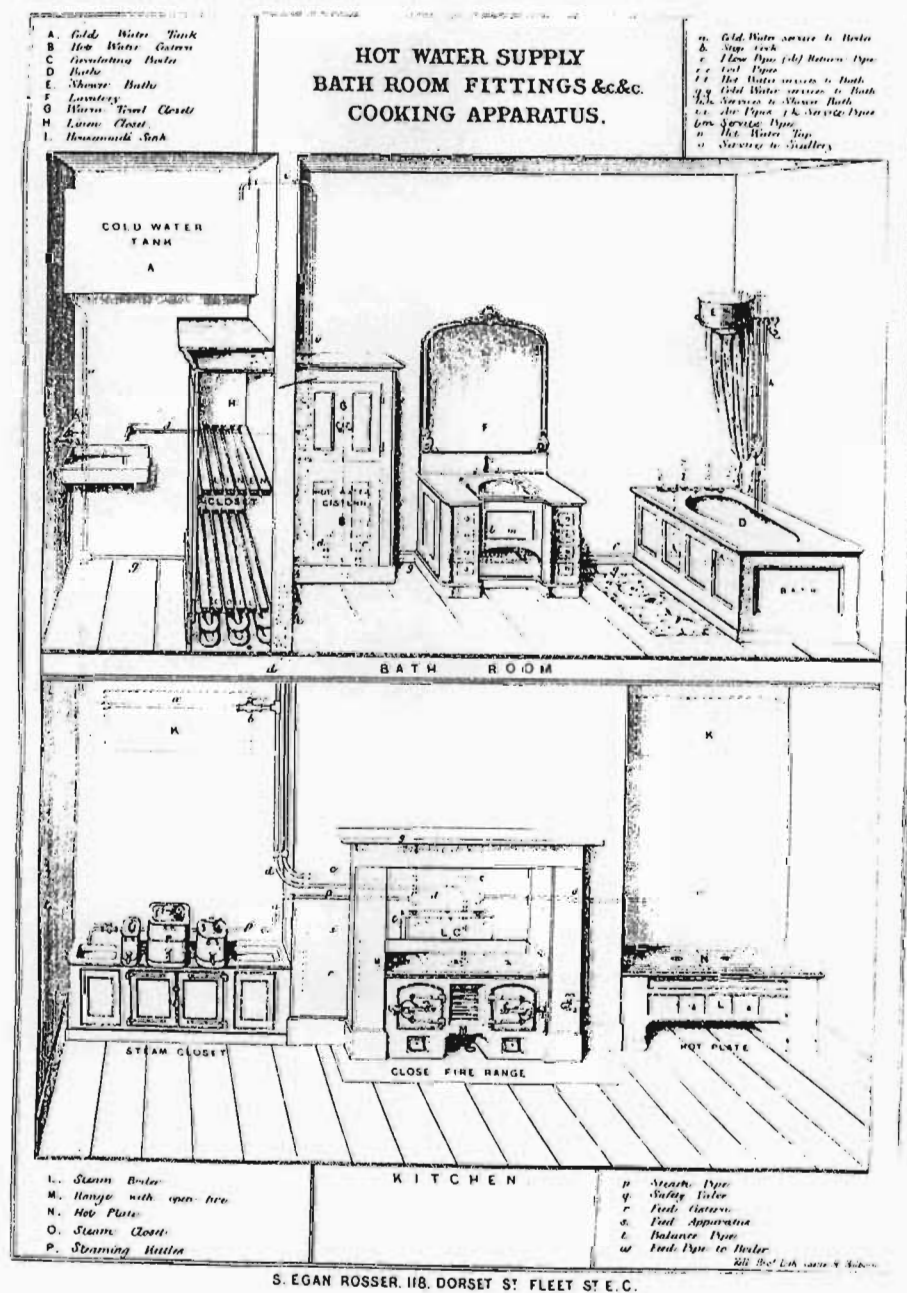


Fig 8.4 Typical Victorian Layout for Hot Water Supply

8.1 iv Natural Ventilation

Since the interiors of houses in Natal did not have to be tightly sealed against the bad weather or heated by means of fire, the concern for the "ingress of fresh air from without, as well as for carrying off the bad air from within." (Downing 1969:489), was not of concern. The hot, humid months in Durban required air flow to provide cool breezes to alleviate the intense heat and humidity. The circulation of air was secured by means of doors and other openings.

Movement of air is required to ventilate a room. By means of diagrams, Loudon in "The Architecture of Country Houses" demonstrates the chimney, with an open fireplace, as a common means to ventilate a room (Fig 8.5).

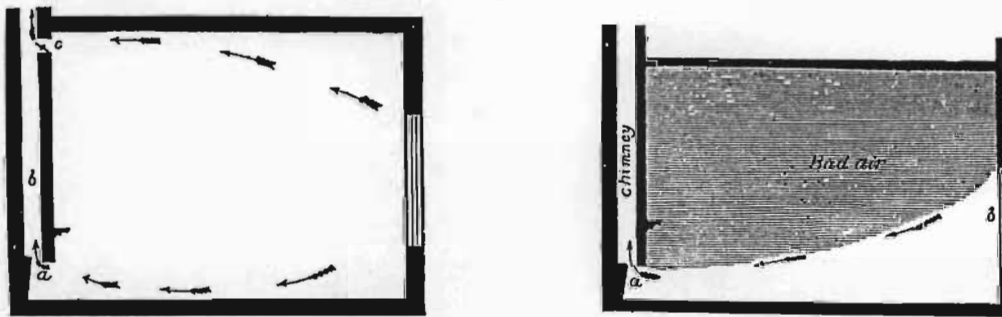


Fig 8.5

With register

Without register

The Fireplace as way in which to Ventilate a Room.

The fresh air is drawn through door and window crevices to the base of the chimney and upwards leaving the hot air at the upper section of the room. He advocates the use of a chimney-valve, or register positioned at the top of the chimney at the ceiling junction. This would pull the "bad air" or hot air through the register into the flue.

Loudon also demonstrates the same principles for ventilating roof spaces (Fig 8.6).

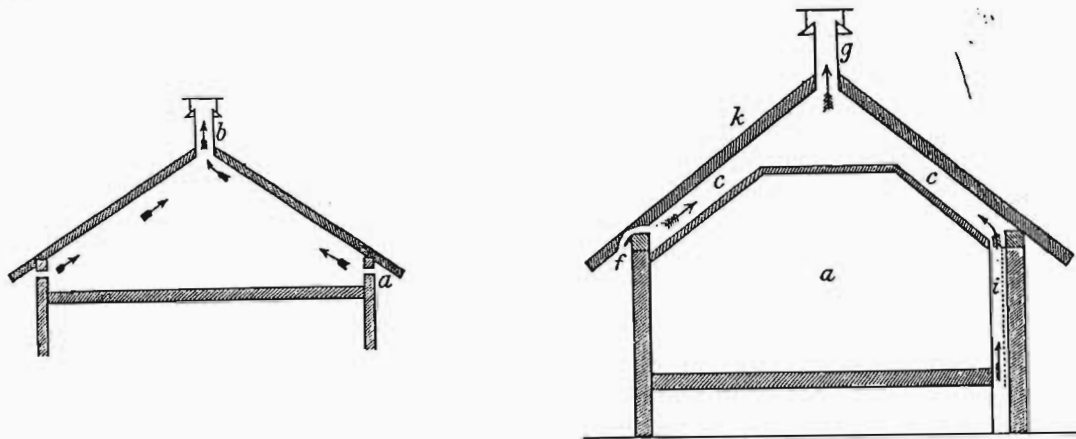


Fig 8.6 *Ventilation of Garrets and Attic Bedrooms*
(Loudon 1859)

Based on these principles of air movement, Street-Wilson used ceiling ventilation panels in his design of villas. On the ground floor rooms, these connected into a duct in the ceiling/suspended first floor which lead to an opening in the external wall, as seen in the house for A. Findlay (Fig 8.7). On the ceiling of the first floor were ventilation panels to the roof space and roof ventilator. The air flow created by these ventilation systems was necessary to provide relief from the hot, humid, sub-tropical climate of Durban.

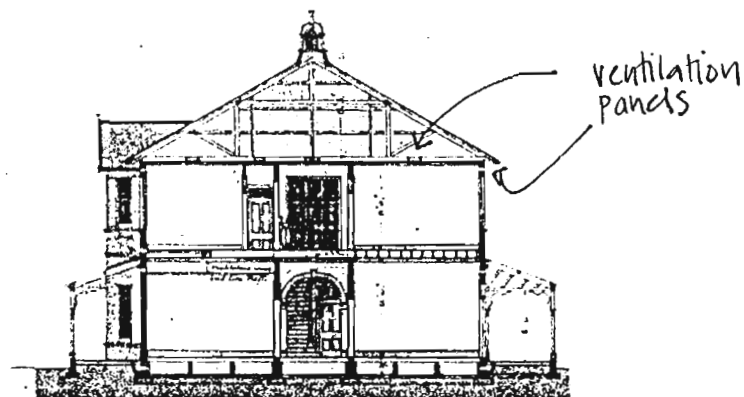


Fig 8.7 *Section showing Ventilation Panels* (Fig 3.34, 1895)
- 430 -

Two types of ventilators are found in the drawing collection. The first is the triangular, louvred ventilation panel which forms part of the ventilated, hipped roof. This type of ventilator was most commonly used and was especially necessary with the corrugated-iron roof which tends to heat up rapidly and therefore requires an outlet for hot air.

The second type of ventilator used was the ejecting ventilator, found on the apex or ridge of a house, which also allowed for the escape of accumulated hot air from the roof space. The ventilator comprised of a galvanised iron, or tin tube with a part cone form and a fender at the top (Fig 8.8). The ventilator is designed in this form so that wind hitting the structure from any direction causes a constant upward draft.

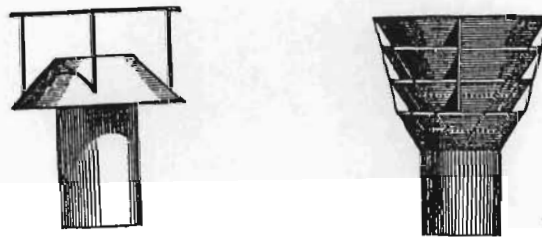


Fig 8.8 *Ejecting Ventilators* (Loudon 1885)

"It is nothing more than making the ejector or ventilation top architectural, by placing it in an open cupola, corresponding with the style of the house. In this way, the cupola (of moderate size, so as not to have the pretentious look of a public building) may be made as significant and characteristic an ornament of a dwelling house as a chimney top, for it will soon come to be recognized as the sign of pure air provided for the inmates of the house." (Downing 1969:482). Such a roof ventilator, housed in a decorated cupola, was used in the villa designed for A. Findlay. (See Chapter 6 on Construction) A more simple version of an unadorned roof ventilator was used over the kitchen.

Other examples of ventilation ceiling panels are found in drawings :

Fig 3.37, 1896

Fig 3.38, 1896

Fig 3.40, 1896

The layout of the single storey plan (Fig 8.9) with its central passage running from the front verandah to the back verandah, provided an efficient system of natural cross ventilation. Air movement relied on the windows and doors being opened so that the wind or breeze, depending on its direction, could enter the house and flow through the **central** passage. In doing so it would pull air in through the bedroom windows, creating cool breezes through out the house.

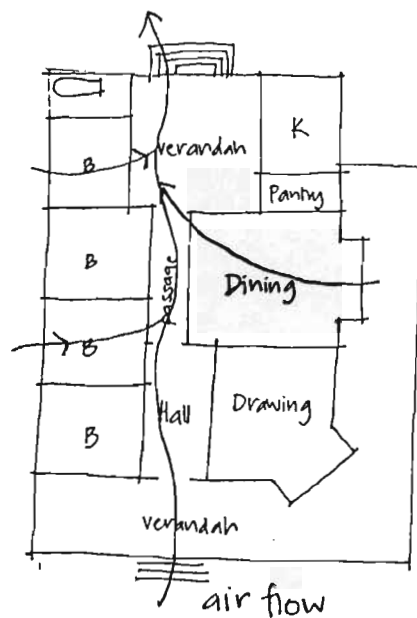


Fig 8.9 Sketch Plan Showing Cross Ventilation (Fig 3.16, 1892)

8.1 v Artificial Lighting

"The development of lighting technology has been characterised by the invention of light sources with greater output and efficiency. The candle produced the candelabra (sic!) that enhances light with prismatic adornment. The oil lamp brought the development of various reflectors to concentrate the light. The gas mantle gave rise to the first efforts at precise optical control; the electric light bulb, because of its safety and cleanliness, permitted the first designs of decorative and architectural fittings and shades." (Guedes 1982:402).

The oil lamp originally used animal and vegetable oils but later, mineral products such as paraffin, which was a product from lignite and coal, and naphtha replaced the oil. The availability and cheapness of coal lead to the paraffin lamp being widely used but still in conjunction with candles.

As reflected in Furniture Sales in the Natal Mercury : March 20, 1897 and Tuesday January 6, 1903, hanging lamps or lamps were listed amongst the furniture for sale in the drawing and dining rooms, lamps such as a leadlight lamp were listed in list for the hall but no lamps are mentioned in any of the bedrooms. This might suggest that candles were used in the bedrooms which were areas which did not require such an intensity of lighting as did the other rooms of the house. **The** position of the more "formal" lamps in the main living rooms would have been in fixed positions. Candles **had the** advantage of being easily transported and gave off less undesirable fumes.

Gas lighting started with the discovery of coal gas and evolved through several processes until by 1870 there were 49 municipal gas undertakings in Britain. (Billington & Roberts 1982:416). **By** the middle of the 19th century, its use in domestic houses had rapidly increased. "The success which has attended gas lighting has now effected its adoption in almost every town in Great Britain. The continental nations are slowly following our example. In America it is used **extensively** in the large towns; and it has even reached **the** remote colony of N S W, the town of Sydney being now lighted in this manner." (Billington & Roberts 1982:416).

The incandescent light bulb was discovered by Edison (1847-1931) in America and by Swan (1828-1914) in England. The first house in which electricity was installed in England was the residence "Craigside" which was designed by Richard Norman Shaw for the inventor Sir William Armstrong. A water turbine located 1,370m from the house provided power for the system. (Guedes 1982:210).

In 1882, an English law was passed as part of the Electric Lighting Act "to facilitate and regulate the supply of electricity for lighting and other purposes." (Guedes 1982:210). In the Municipal Corporations Lighting Law, 1891, in Durban, the Corporation was empowered to "supply electricity or gas for public and private purposes within any Municipal Borough, and shall have power to authorize the execution and maintenance of any works needed for the purpose of each supply." (N.G.G. September 1, 1891:1417).

In Durban, "Gas versus Electricity" was the heading under which the Borough Engineer (Mr John Fletcher) first reported to the Town Council in September, 1893, in regard to electric lighting. The Council being convinced that electricity was immeasurably preferable to gas." (Henderson 1904:251).

In 1897, The Natal Mercury, February 5, 1897 reported that "satisfactory progress is being made with the laying down of the electrical light plant and mains. The cable has been brought well down Smith Street, and it is expected that good headway will be made in West Street. It is difficult to say, however, when the work will be completed. The erection of the chief transforming station is being already proceeded with under the Town Hall, and the lamp posts - which are to run down the centre of Smith Street and along the kerb of the pavement in West Street - will shortly be fixed into position."

In The Natal Mercury, March 29, 1897, a notice from the Durban Corporation read "Householders within the lighting area are hereby invited to send in notice of their lighting requirements to the Town office, where all information, application forms, and **Rules** for installations may be obtained on application." With the proposal for installing a tramline system, in 1899, it was evident that the Point power station was unable to cope with the demand and a new power station was proposed for Alice Street.

By 1903, "For illuminary purposes it (electricity) is the only illuminant in use, and in private residences has been very largely installed." (Fig 8.10) (Morse & Monaghan 1903:4).

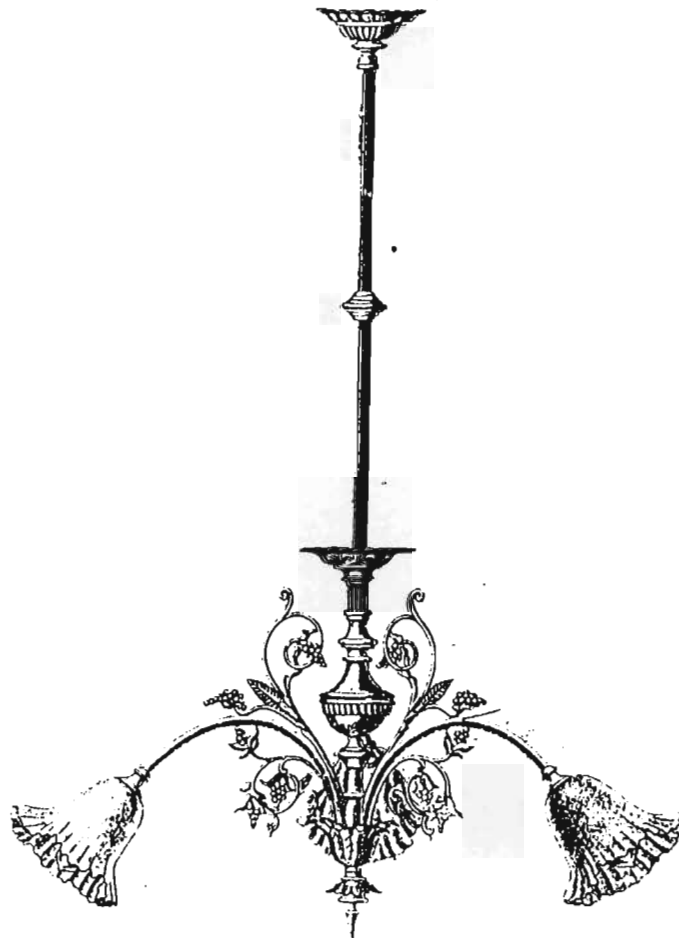


Fig 8.10 *Electric Light Fitting (1903)*
from Messrs. Heywood & Co.

8.2 Sanitation

8.2 i Sewerage

Before water borne sewerage was introduced the householder was to provide a night soil pail "for the containing and removal of night soil from his premises" (N.G.G. 1892:91). The night soil was removed by the Council at the cost of the householder. "The night soil receptacles shall not be removed before the hour of 10 p.m. at night, nor after sunrise in the morning." (N.G.G. 1892:91). (See Chapter 5).

The design of the water closet evolved from a simple bowl with plug and tap water to wash down the contents to a system which uses a "water seal to isolate the bowl from the drain." (Billington & Roberts 1982:532). In 1892 a siphonic closet with a double trap was developed and went through a number of refinements.

In 1877, Richard Norman Shaw at 6 Elverdale Road, London used an open soil pipe system (Fig 8.11).

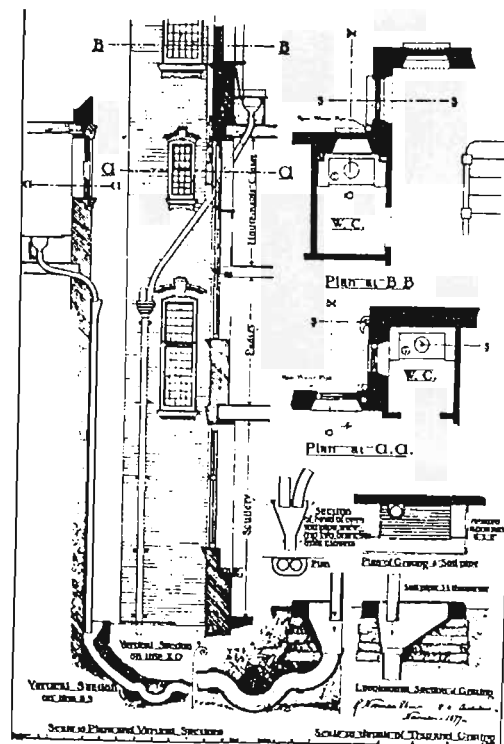


Fig 8.11 Diagram of open soil pipe system used by Richard Norman Shaw at 6 Elverdale Road, London (1877)

The chamber pot remained popular right up to the twentieth century and only as water supplies and drainage systems were developed so did the use of the W.C. increase.

"Main Sewerage Law" No 20 of 1891 authorised "the Town Council of the Borough of Durban to provide a main sewerage scheme to the Borough." (N.G.G. 1892:1416). "Power was conferred upon the Council to enforce the construction of house drainage works and connections with public sewers by landlords." (Henderson 1904:28). This corresponds with the first appearance of the W.C., as a separate room, in the semi-detached houses designed in Durban City Centre, in Smith Street for F.L. Jonsson (Fig 3.13, 1891). (See Chapter 5)

All the semi-detached houses in the City have W.C.s, either as a separate room or incorporated in the bathroom (Fig 3.39, 1896). These are usually positioned on the first floor except for (Fig 3.46, 1898) where the W.C. is on the ground floor as part of the back extension. The earliest example of the W.C. incorporated in the bathroom, on the upper floor, is in the villa designed for Reynolds in Umzinto (Fig 3.31, 1894).

By July 1st, 1896 the Sewerage Outfall Works were put into operation and the "town proper, with the exception of a few minor streets, and the greater portion of the Berea are sewered." (Henderson 1904:287).

Only much later, in 1901, does the first W.C. appear on a drawing of a house in the Durban suburbs (Fig 3.61). A separate W.C. located on the ground floor is found in the villa designed for W. Wood in 1898 (Fig 3.45). Of the single storey house types, the only example where the W.C. is positioned within the house, is in the last example (Fig 3.75, 1913). It is positioned next to the bathroom and behind the bedroom wing.

10

Waste and Soil Pipes

Waste

"For the bath "2"¹ diam. drawn lead pipe 18lbs per yard as waste, discharging into open head outside. 2" galvanised iron waste from thence to gully trap, chased into the wall for 6ft high." (Specification OD 593, 1896). For the kitchen sink "2" diam lead waste pipe (18lbs per yard) with trap under sink, **dis**charging into gulley outside."

"The **soil** pipe from the W.C. to be 4" diam drawn lead pipe (7lbs lead) connected to the W.C. and drain according to the Corporation regulations, and chased into the wall for 6ft high."

Ventilation Pipes

"Provide and fix upper W.C. soil pipe and from end of house drain at kitchen gulley trap 4" diam zinc ventilating pies (No 12 gauge with good welts and soldered seams (fixed with seam exposed) and jointed with 2" slip joint well sweated in with solder. Approved wind caps to be fixed to the terminal of ventilating shafts." Specification (Fig 3.41, 1896).

1: A sum of £6 10s. (Durban Coast) was allocated for a cast iron bath and fittings in 1896, Fig 3.41. In 1896 in the specification for the semi-detached houses designed **for the Estate** of the Late J.L. Crompton, 1896, "a sum of £5 and 10s was allocated for the **upstairs** W.C. and £3 10s for the outside W.C. "

8.3 Stormwater

A system of underground water storage tanks are found in drawing examples. (Fig 8.13) shows a stormwater drainage layout feeding two bottle-like cylinders, each 12 feet in diameter and 12 feet high, located to the back, service end of the house. Access to the tank is via the openings at the top of the tanks. (See Appendix 5.1 : Tweedie Hall)

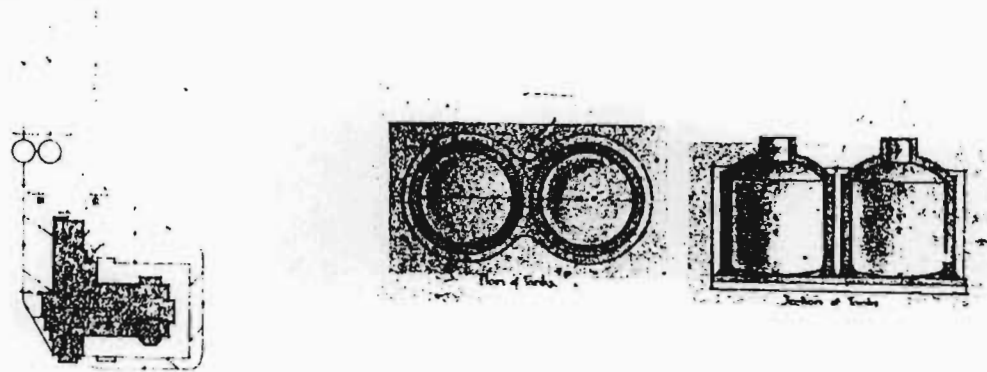


Fig 8.13 *Stormwater Drainage Layout (Fig 3.51, 1898)*
(showing underground tanks)

The drawing for the house designed for Dering Stainbank in Bellair in 1898 (Fig 8.14) shows a cubed shaped tanks measuring 10 feet all round constructed of 9 inch walls on cement base.

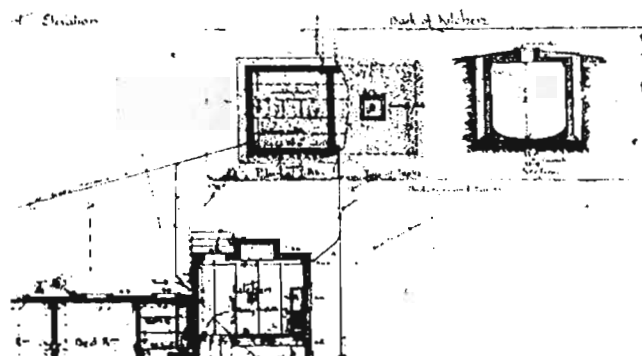


Fig 8.14 *Underground Tanks (Fig 3.47 1898)*

Where storm water was disposed of into the street, the specification, (Fig 3.41, 1896) says to "Provide and fix 4" diam cast iron pipe underneath pavement from termination of surface drain in passage and from R.W.P. on the verandah post, discharging into street gutter."

LIST OF ILLUSTRATIONS

Abbreviations

B. & R. : Billington & Roberts

M. & M. : Morse & Monaghan

U.N. : University of Natal ; Barrie Biermann architectural library

8.1 :	Typical Cast-Iron Stove with an Oven	B. & R. 1982:356
8.2 :	Combination Water Heater and Cooking Range. (1897)	B. & R. 1982:356
8.3 :	Indirect Water Supply	B. & R. 1982:358
8.4 :	Typical Victorian Layout for Hot Water Supply (undated)	B. & R. 1982:cover
8.5 :	The Fireplace as Way in which to Ventilate a Room.	Downing 1969:466/7
8.6 :	Ventilation of Garrets and Attic Bedrooms	Downing 1969:192/3
8.7 :	Section showing Ventilation Panels. (1895)	OD 533 (U.N)
8.8 :	Ejecting Ventilators. (1885)	Downing 1969:191
8.9 :	Sketch plan (1892)	Author
8.10 :	Electric Light Fitting	M. & M. 1904:4
8.11 :	Diagram of Open Soil Pipe System used by Richard Norman Shaw at 6 Elverdale Road, London. (1877)	Guedes 1979:211
8.12 :	Sewer Catch Pit. (1902)	OD 611 (U.N.)
8.13 :	Stormwater Drainage Layout Showing Underground Tanks. (1898)	OD 544 (U.N.)
8.14 :	Underground Tanks. (1898)	OD 616 (U.N.)

CONCLUSION

Clearly the stylistic trends in domestic architecture in England influenced those of Street-Wilson and his partners. Street-Wilson left England at the height of the Arts and Crafts movement and brought with him his professional training and expertise. His experience translated these onto Natalian soil in the last decade of the Victorian era.

With him, he brought not the typical revolutionary L-shaped plan of the Arts and Crafts period, but the more conventional planning principles reflected in the plans of Norman Shaw, particularly those of Bedford Park. This plan type was dominated by a central hall with a clear distinction between the specialised rooms of the main body of the house and the service wing. Typically there were two stairs, a principal one for the main house, and a secondary one as a service stair.

The pyramidal and pitched roof forms favoured by Street-Wilson in the late Victorian era, are a derivative of the villa house forms used by Arts and Crafts architects and a tradition roof form of Natal. The front-gable house and the gable, in either a single, **double** or multiple configuration are recurring themes, common to both. These are witnessed in the domestic architecture of the high Victorian architects; W. M. Pugin's house at Ramsgate, Kent (1843-4), Butterfield's vicarage at Avon (1844-5), and Street's vicarage and schools, Berkshire. It also appears in Shaw's "Queen Anne" houses at Bedford Park and in Voysey and Scotts work towards the end of the Arts and Crafts movement.

Cupolas, ventilators, ridge cresting, chimneys and towers with classical detailing in fenestration **characterize** both the period of the "Queen Anne" revival, or free Renaissance revival style of the Arts and Crafts movement, and the late Victorian period of Street-Wilson's domestic architecture. Similar characters are also seen in Street-Wilson's partnerships with both Barr and Fyfe. Shaw's use of different wall textures; a mix of plaster and facebrick on external walls, and the early revival of the use of rough-cast rendering were adopted by Street-Wilson. This late Victorian period in Natal can be likened to the "Queen Anne" revival style which is illustrated in Norman Shaw's domestic architecture, at 31 Melbury Place (1875-7).

The Victorian rhythm was broken by the Anglo-Boer War of 1899-1903 (Hindson: 1987:3) This style lasted the duration of the late Victorian era until the turn of the century and the early part of the Edwardian Period. While practising on his own, Street-Wilson's domestic architecture, although still adhering to the same design principles of the previous decade, went through a stylistic change of simplification which typified the Edwardian Period.

A change in the style of the house in terms of both plan, form and materials, took place in the second half of 1900 in Street-Wilson's domestic architecture, with the introduction of a pivotal plan and a predominant roof with an extended eave line. The wall took on a new character; the gabled wall became all important, wall ends were altered and wall textures were those of rough-cast plaster and paint. These changes were also evident in the Arts and Crafts Movement in the work of Voysey, Baillie-Scott, and Ashbee, although the emphasis on horizontality found in Voysey's work is not reflected in Street-Wilson's houses.

Judging from the few house examples of Street-Wilson's partners, their influence on the style of houses designed is not evident. Barr and Fyfe were associated with the Victorian Era with Fyfe leaving the partnership just before 1900, when many stylistic changes took place. Paton was associated with the late Edwardian and Union Period, with his name appearing on a house in 1905. Paton however, had been part of the office since 1899 and may have been an influence on the design of houses prior to his being made a partner.

It is the adoption of the industrial material of corrugated iron, with its linear profile, that distinguished the Natalian domestic architecture from that of the English Arts and Crafts style, portraying a typical Colonial style.

The introduction of this material introduces one of the ironies of the philosophies, employed in Natal, of the Arts and Crafts Movement where emphasis is on hand crafted materials and here an industrial material is introduced. Later, at the turn of the century, the introduction of terracotta tiles helped change the early Victorian, light-weight industrial appearance of the Natalian houses into a more solid style typical of the Edwardian era and also facilitated the Arts and Crafts expression of style.

What distinguishes the English examples from their Natalian counterparts, is the lack of the **verandah**.

More Victorian in character, since, as a rule Victorians covered themselves up, the Natalian house examples appear more 'dressed' with the addition and integration of the verandah as a design element. The verandahs, being voids, create negative or shadow spaces to a structure imparting a sense of three dimensionality and depth to a house. The exposed fenestration of the Arts and Crafts examples contrasts with the partially hidden fenestration of Street-Wilson's houses. In the front-gabled house, compared with its English counterparts, the verandah afforded a better resolution between gable and the horizontal wall of the house by providing a wall against which the verandah could terminate. Whereas the English examples of gabled walls appear more two-dimensional and read more as a facade than a form, so the perimeter wall, with all its fenestration, was emphasized.

Due to the absence of the verandah in English domestic architecture, except as a feature in villas at seaside resorts, investigation into its origins and those of the single storey verandah house, suggests the verandah to be of Caribbean origin. This feature was transported around the colonies by the British who were involved in India. Its use is evident, in varying form, in all British Colonies, including Natal. The Natalian examples of verandah houses differ to that of Street-Wilson's domestic architecture in that they do not adhere to the strict gradation of rooms from the front to the back of the house and in the relationship between the dining room and kitchen.

With the evolution of the house type from 1889-1913, comes the evolution of the verandah. It evolved primarily from a symbolic representation of the entrance to the house, to a feature associated with the more private, living and sleeping rooms of the house. Contributing factors to the change in function of the verandah, apart from the general stylistic changes which occurred in domestic architecture in Natal, may have been the reduction of the size of sites on which the houses stood and changes in attitudes to privacy. Smaller sites meant close proximity to neighbours and therefore the need for more privacy. The requirement of privacy may also have arisen as a result of the increased complexity of design requirements of the client. The client, because of increased wealth and change in status may have required more seclusion from the community, so that a high lifestyle was not flaunted to the public.

The verandah also evolved from having its own identity and being expressed in the form, to being incorporated under the main roof of the house. This may have been economically and practically inspired, since a separate verandah involved added complexities regarding pitch, flashing, additional guttering and downpipes.

While practising, the writings and theory of the architects and critics abroad would have been of great influence to Street-Wilson. When talking of American Colonial architecture, Sculley says of architectural journals : "In these, there took shape the patterns of thought and design which were of decisive importance for the future of American domestic architecture." (Sculley 1974:4). 'Building News', the English architectural journal, first published Shaw's work in March 31 1871. (Sculley 1974:4).

The books of Downing, "The Architecture of Country Houses", Eastlake and "Hints on Household Taste", and Kerr's "Gentleman's House", would have influenced architectural thinking. Pattern books were readily available. "One could choose entire buildings from such catalogues as Macfarlane's of Glasgow. Every machine-made building element or ornament could be selected in this way, just as building styles and house-plans were, from Regency times, selected by the building public from pattern books and encyclopaedias. In a certain sense such a system of choice left little originality to the architect, though in other ways this could only be of advantage to architecture." (Kearney 1973:76).

It is concluded that this is not applicable to Street-Wilson's domestic architecture, where the detailing was not reflective of catalogue detailing but of hand-crafted, purpose-designed work in the true Arts and Crafts teaching style.

Of the 62 examples of houses which form the drawing collection, 13 are known to have survived and have been photographically recorded where possible. The remaining examples have either been demolished or the physical addresses were unable to be traced through research.

Of the few that remain, their states of repair vary from the recently renovated 59 Musgrave Road, which has been converted into offices, to privately owned homes which have been well maintained over the years such as Penshurst, 164 Springfield Road, and 8 Newcombe Place. Other examples such as Captain Reeves' house, 315 Musgrave Road, have been considerably altered to the point where they are unrecognisable as examples of Street-Wilson's architecture. Other houses have undergone extensive alterations, not only to accommodate modern living requirements, but also to alter the original style to reflect the style of the current time. In general, this has taken the form of plastering of facebrick walls, infilling of verandahs and the removal of any verandah timber columns and fretwork. The early verandahs have mostly been replaced with plastered and painted brick balustrade walls and pre-cast concrete columns.

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| N.M. | The Natal Mercury |
| P.M | The Pictorial Mercury |
| N.B.B. | Natal Blue Books |
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GLOSSARY

architrave	Decorative timber moulding surrounding a window or door
ashlar	Stone which has been wrought to square corners and even faces, and laid in horizontal courses with fine mortar joints.
attic	A room within the roof of a building
awning	A roof with an open side, supported by posts, brackets or cantilevering
baluster	One of the vertical supports, usually of timber or iron, between the newel posts of a staircase and which carry the handrail. Also used to refer to the pear or urn shaped pillars of stone or concrete which support a railing.
balustrade	A series of balusters supporting a handrail or coping.
barge-board	A protective piece of timber, often decorated with fretwork, placed against the incline of the gable of the roof and concealing the horizontal roof timbers.
bay	An angular or curved projection of a house front, containing windows. When on an upper storey only, called an oriel.
bearers	The heavy timbers supporting floor joists
bond	The method of overlapping bricks or stone to tie them together in a wall.
bullnose	1. Used to describe corrugated galvanised iron which has been curved through ninety degrees for use on the verandah or balcony. 2. A brick or rounded corner; used for rounded corners on the exterior of a building.
bungalow	From the Hindustani "bangla", 'belonging to Bengal' - a Bengal house. Derived from the light dwellings with verandahs erected for the British administrators in India.
comes	Strips of lead used as the structural support in leadlight or stained-glass work.
capital	The head or crowning feature of a column. Often seen beneath the decorative cast iron friezes at the front of the house, or the timber ornamentation of a verandah house.
casement	A window hinged on one of its edges so as to open either inwards or outwards.
cast iron	Iron formed into a shape by pouring it when molten into a mould. Decorative cast iron is often mistakenly described as wrought iron.
colonnade	A series of columns and their superstructure.
coping	A cap or covering to a wall, either flat or sloping to shed water.
cornice	A projecting decorative feature joining the top of the wall to the ceiling and concealing the join between the two.
cowl	A metal object occasionally used in place of a chimney pot on top of a chimney.
dado	The lower part of an internal wall which has been finished or decorated up to about waist height in a manner different to the rest of the wall.
dampcourse	A protective barrier in a wall, designed to prevent moisture rising from the ground into the wall.
dressing	The smoothing and finishing of stone which is to be used as an element in the decoration of walls, around arches, or in the frames for doors and windows.
eaves	The projecting edges of a roof which hang over the walls.

encaustic	The process by which decorative tiles or bricks are produced by firing them in a kiln.
escutcheon	A keyhole plate, often shaped like a shield.
etched glass	Glass on which decorative patterns have been produced by the action of hydrofluoric acid.
fanlight	In Georgian architecture, a fan-shaped window or 'light' over the front door. Now used to apply to a rectangular window above any door.
fascia	A flat piece of timber used on edge of a roof, and to which the guttering is usually attached.
finial	the ornament at the apex of the roof, pediment or gable
flushed	1. Clear glass with a thin film of coloured glass on one surface. 2. The process by which part of a roof, balcony, etc, has been waterproofed by the use of lead or other form of flashing.
flashing	Strips of lead, aluminium or other substance used to prevent water access between horizontal and vertical elements on a roof, as for example around a chimney.
flue	The square or rectangular passage in a chimney through which hot air, smoke and gases escape.
footings	In effect, the feet of a building; its foundations, usually consisting of a wider course of stone, brick or concrete at the base of a wall.
fretwork	Decorative elements, usually of timber, from which portion has been cut away to form a regular pattern.
frieze	1. A band of decoration, painted, sculptured or of paper used on internal walls above the dado or below the cornice. 2. The middle division of a Classical entablature, often decorated.
gable	The triangular portion of a wall at the end of a pitched roof.
galvanise	Technically, the coating of metal by electro-chemical action. In practice, so-called galvanized iron is produced by coating iron with zinc, by dipping or straying.
Georgian	Architecture, furniture, silver and decoration dating from the reign of the first three Hanoverian Kings of England. (1714-1820), or of architecture of a later date in the style of that period.
Gothic Revival	An eighteenth- and nineteenth-century revival of medieval movement on architecture and art.
graining	A method of painting by which inexpensive timber is given the grain-like appearance of a higher quality timber.
joiner	A craftsman in timber who does lighter and more ornamental work than a carpenter.
joinery	The interior timber fittings and fixtures of a house which has been made and installed by the joiner. Also, a business enterprise conducted by a joiner.
joists	The horizontal timbers, laid on edge, on which are nailed the floorboards, or to the underneath of which a ceiling may be fixed.
keystone	the middle stone of an arch.
label mould	The projecting moulding on the face of an external wall, above a window, arch or doorway. A decorative feature with the functional task of carrying rainwater off the wall. Also known as a hood mould.

leadlight	A window or 'light' consisting of small coloured pieces of glass held together in a decorative pattern by lead strips or 'comes'.
lintel	The horizontal member that spans an opening.
mantelpiece	The ornamental structure of marble, timber cast iron or plaster which extends over and around the fireplace.
masonry	Building work in brick or stone.
marbling	The process by which timber is painted to resemble marble of various types.
moulding	Decorative shapes in timber or plaster which are used to add interest to a wall or other surface.
newelpost	The principal post at the end of a flight of stairs. It supports the handrails and the outer string upon which the steps rest. Also, the central pillar from which the steps of a winding or spiral, stair radiate.
ogee	A double-curved moulding, concave above and convex below. It provided a very popular profile for guttering in the nineteenth century.
oriel	A bay window on an upper storey.
palisade	A fence of vertical pointed wooden stakes or metal rods. A very popular form of domestic fencing nineteenth century.
parapet	A low wall erected to protect or complete any edge where there is a sudden drop, as on a roof.
part wall	The common dividing wall between attached houses.
portico	A porch supported by columns and open on at least one side.
purlins	Used in roofing to denote the transverse horizontal upon which the battens for the slate, tiles, iron or other covering are fastened.
render	1. The coat of mortar or stucco applied to protect an external wall, often of soft, porous sandstock brick, from the effects of the elements. Usually lined or marked to simulate stone blocks. 2. The first coat of plaster on an internal wall.
resist	The coating applied to the surface of glass which is to be etched by the action of hydrofluoric acid.
ridge	The line at which two intersecting planes of a roof meet.
riser (see also tread)	The vertical or rising part of the step, filling in the gap between the treads.
rose, ceiling	The plaster or metal fixture of various shapes, sizes and patterns used to decorate the centre of a ceiling and from which the main light of a room is suspended.
sarking	A supplementary protective water-proof membrane beneath the main roof material.
sash	The frame which holds the glass of a window, especially in the case of a frame which moves vertically. Hence, 'sash-windows', a window consisting of two or more vertically sliding sashes.
shingles	Thin pieces of wood with parallel sides used for roofing.
shutter	A louvred frame of wood hinged to swing in front of windows and doors, to provide protection and privacy, or to exclude light.
sill	The lower horizontal part of a window opening.
skirting	Flat board placed against the wall at the point where it meets the wall. Usually moulded at the top.

string	A sloping structural member at each end of the treads and risers of a staircase.
stucco	A coarse plaster or render composed of a mixture of gypsum, lime or cement used to cover the external surfaces of walls. Usually lined to simulate the appearance of stone blocks.
terrace	A row of houses with party walls and with the appearance of architectural uniformity.
tessellated tiles	Tiles of different shape and colours laid on a path, verandah or floor to form mosaic pattern. Also called 'tesserae'
tread (see also riser)	The flat, horizontal part of the stairs or steps on which the steps are placed.
turned	Wood which has been shaped while revolving in the lathe.
turret	A small tower, usually round or in the shape of a polygon.
valance	A pendant border, fringe or edging. When applied to cast iron, refers to the part of the decorative ironwork which is attached to the underside of a verandah or balcony roof beam.
verandah	An external awning attached to a wall of a building on one side and supported on its outer edge by posts.
vernacular villa	The unsophisticated architecture of the country. originally the farmhouse of an Italian country estate. In nineteenth South African the term implied a detached house or larger cottage, freestanding on its own ground in an suburban environment.
weatherboard	Overlapping boards, usually horizontal, covering the exterior of a timber-framed wall.
wrought-iron	Iron formed into shape by the use of hand tools and heat. Often mistakenly used to describe cast-iron decoration.

Extracted from :

EVANS, E. Restoring Old Houses. South Melbourne: The Macmillan Company of
1979. Australia Pty Ltd. 144 p.

APPENDICES

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APPENDIX 2 : Obituary

APPENDIX 3 : Handwriting Analysis:Signatures of Street-Wilson.

APPENDIX 4 : Membership of the Royal Institute of British Architects.

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Classification
- 4.2 William Street-Wilson
Registration Certificate: Associate of the Royal Institute
of British Architects.
- 4.3 Registration Certificate: Fellow of the Royal
Institute of British Architects .

APPENDIX 5 :

- 5.1 : Tweedie Hall, Street-Wilson (c 1892)
- 5.2 : 378 Ridge Road, Street-Wilson and Paton (1918)
- 5.3 : Stellawood Housing Scheme (1920) Street-Wilson and Paton
(1920)
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344/350 Essenwood Rd, Street-Wilson and Paton.
(1923)

APPENDIX 6 : Locality Map

APPENDIX 1

Birth Certificate: William Street-Wilson.

CERTIFIED COPY OF AN ENTRY OF BIRTH

GIVEN AT THE GENERAL REGISTER OFFICE, LONDON

Application Number R129231



REGISTRATION DISTRICT Ismington
 BIRTH in the Sub-district of Ismington East in the County of Middlesex

Columns:	1	2	3	4	5	6	7	8	9	10*
No.	When and where born	Name, if any	Sex	Name and surname of father	Name, surname and maiden surname of mother	Occupation of father	Signature, description and residence of informant	When registered	Signature of Registrar	Name entered after registration
344	<u>At the</u> <u>Islington</u> <u>Register Office</u> <u>Upper St. Mary</u>	<u>William</u> <u>Thomas</u>	<u>Boy</u>	<u>William</u> <u>Thomas</u>	<u>Ann</u> <u>Richardson</u> <u>William</u> <u>Primley</u> <u>Street</u>	<u>Chamber</u> <u>and</u> <u>Druggist</u>	<u>Thomas William</u> <u>Post Office</u> <u>Islington</u>	<u>July</u> <u>1856</u>	<u>W. H. H. H.</u> <u>Ag. H. H.</u>	

CERTIFIED to be a true copy of an entry in the certified copy of a Register of Births in the District above mentioned.

Given at the GENERAL REGISTER OFFICE, LONDON, under the Seal of the said Office, the 11th day of January 1991

*See note overleaf

BXBX 025404

CAUTION:- It is an offence to falsify a certificate or to make or knowingly use a false certificate or a copy of a false certificate intending it to be accepted as genuine to the prejudice of any person or to procure a certificate knowing it to be false without lawful authority.



APPENDIX 2

Obituary: William Street-Wilson.

NOTABLE NATAL ARCHITECT

DEATH OF MR. W. STREET-WILSON

OVER FORTY YEARS IN THE PROVINCE

On Saturday morning the death occurred of one of Natal's leading architects, Mr. William Street-Wilson, F.R.I.B.A., of the well-known firm of Street-Wilson & Paton. Mr. Street-Wilson, who was 73 years old, practised his profession actively until his illness a few weeks ago. He leaves a married daughter to mourn his loss.

Mr. Street-Wilson had been practising in Natal for over 40 years, and, with his partners had been associated in the erection of many of the most important buildings in Durban and Maritzburg. Always devoted to his profession, in the early days of the Colony he set up a standard that has won the admiration of many visiting architects. He has left behind him many permanent monuments to the conspicuous part he played in building up Durban and Maritzburg and to his technical and artistic skill.

Born and educated at Surrey, Mr. Street-Wilson was articled to Messrs. Vicker & Anderson, of London, and started on his own account as a young man in London. In 1886 he came to Natal and practised in Durban and Maritzburg. His first partner was the late Percy Barr, and later he was associated with Mr. Arthur Pyfe. Just over 25 years ago he was joined by Mr. Wallace Paton, F.R.I.B.A., and the present firm of Street-Wilson & Paton established. One of his earliest designs in Natal was the Town Hall in Maritzburg. When that fine building was destroyed by fire Mr. Street-Wilson's firm was commissioned to design the present Town Hall in the City. Some of his early work in Durban was the Railway Station, the Fire Station, Police Station, Market Hall and the old Bank of Africa, now Barclays Bank—all dignified buildings of a distinctive character. Other admirable examples of his work are the Emmanuel Cathedral and the Congregational Church in Mesgrave Road. In the country districts of Natal Mr. Street-Wilson designed many church buildings and residences, while in Durban his firm was responsible for the erection of a number of dignified homes on the Berea.

More recently Mr. Street-Wilson and his partner have been kept busy planning several modern buildings, which have added to the architectural beauty of West Street and Smith Street. Notable illustrations of their work in the reconstruction of West Street are Randles Bro. and Hudson's building, Anstey's, and Stuttaford's, three distinctive types of commercial architecture which are outstanding in the Union.

Too actively interested in his profession to devote time to politics or public life, Mr. Street-Wilson was nevertheless remarkably well-informed on South African and British politics, and took more than a passing interest in public affairs. As one of Durban's oldest citizens he was well known and respected by a large circle of friends in Natal. Many who appreciated his sympathetic and understanding nature will miss the courtly gentleman who was so long identified in an unobtrusive manner with the life and growth of Natal, while charitable and benevolent institutions will mourn a generous friend.

The Funeral

The funeral took place yesterday from Mr. Street-Wilson's late residence in Windmill Road to the Church of England Cemetery, West Street, where a number of old colonists and representatives of the architectural profession and the building trade paid their last respects to the deceased. The short but impressive service was conducted by the Rev. H. Gibbons. The chief mourners were Mr. and Mrs. Laughton (son-in-law and daughter) and Mr. Wallace Paton, F.R.I.B.A. (partner). Other mourners present were the Deputy-Mayor (Mr. Oliver Lea), Mr. Williams, president of the Natal Society of Artists; Messrs. R. Laughton, K.C., W. J. Marriott, A. H. Smith, Roper, W. Payne, R. McKinlay, W. F. Johnstone, T. Burman, M.B.E.; Fred Foster, E. J. Green, H. O. Tunmer, Collin Clark, R. N. McLeod, W. H. Priestley, J. H. Denny, E. H. Clemmans, — Shearing, E. B. Dawson, — Hughes, Albert Turner, J. T. Lea, John Roberts and Walters.

The following sent wreaths:—His daughter Alma; Edmund; his grandchildren, Mollie, Peggy and Joan; Mr. and Mrs. F. A. Laughton; Mr. and Mrs. H. P. Borlase; Mrs.

(Continued in Next Column.)

(Continued from Column Five)

Borlase, senior; Wilson and Henry; Mr. and Mrs. Eric Harris; General and Mrs. Wylie; chairman and members of the Durban Club; Royal Hotel; L. G. Joel; Roger and Marjorie; Mr. and Mrs. P. Mahou and family; Mr. and Mrs. Griffiths; Misses Munro; the directors of Messrs. Stuttaford's, Ltd; Mrs. Labistour and Sylvia; Mr. and Mrs. Taplin and family; Mr. and Mrs. S. Goodall; Lever Bros. (S.A.), Limited; Mr. A. A. Ritchie McKinlay; H. T. Wait and family; Mr. and Mrs. John Roberts; Mr. W. O. W. Holmes; directors, Randles Bro. & Hudson; president and members Master Builders' Association; Mr. and Mrs. A. H. Smith; Mr. and Mrs. C. T. Roper and Eileen; Mr. and Mrs. Karl Gundelfinger; W. B. Wade and family; Mr. Paton; staff, Street-Wilson & Paton; Mr. and Mrs. C. S. M. Taylor; Miss Friend; directors and staff, Dougall & Munro; Mr. and Mrs. E. C. Clemmans; W. F. Johnstone & Co. Ltd; Crittal Manufacturing Co. Ltd; Cole & Clark; Dundee Chemical Co; Mr. and Mrs. James Scobbie and family; Mr. and Mrs. Griffiths and family; Mr. and Mrs. George Palmer; Natal Society of Artists; J. T. Cooper & Co. Ltd; directors, Hunt, Leuchars & Hepburn, Ltd; W. N. Miles; Mr. and Mrs. A. Ascoli; Mr. and Mrs. Jorgensen; Mr. and Mrs. Christiansen; W. Cornelius; Mr. and Mrs. H. Abery; Mr. and Mrs. Burns; Mr. and Mrs. H. Watson; Wade & Dorman, Ltd; W. B. Wade; Mr. and Mrs. G. W. Appleton; Mr. and Mrs. W. G. Thompson.

APPENDIX 3

Handwriting Analysis: Signatures of Street-Wilson.

TON.

William Wilson
37 Norfolk Street. Arch.

1878

CUT
FROM 1881
DOCUMENT

13
14
Shea

William Wilson
37 Norfolk Street. Arch.
Housed

Ordinary Signature of Candidate.

William Wilson

1881

this

1st

day of

March

1882

Name

William Wilson

1882

Address

420 Holloway Road, N.

William Wilson

NO DATE

(From University of
Natal Library)
1882

Barry Branston Mem. Sc. G. (England)

Scientific Graphologist


115 Humberstone Lane,
Thurmaston,
Leicester,
LE4 8HL
Tel: Leicester 605991


Our Reference: MR 242


Mr. Tom Greeves
12 Newton Grove
Bedford Park
London W4 1LB


18 July 1991


COMPARISON OF HISTORIAL SIGNATURES FOR THE PURPOSE OF IDENTIFICATION REGARDING
THE SAME OR DIFFERENT WRITER


1.  'i'-dot is higher than the copybook model.


2.  The capital letter 'W' is extended.


3.  The letter 'W' (capital and small); the first part is higher than the second part.


4.  There is no break between the names.


5.  The small letter 'n' is a garland shape.


6.  There is a starting stroke at the beginning of the capital letter 'W'.


7.  There is a leftward return stroke at the end of the signature.


8.  The small letter 'h' has a wavy second part.


9.  The narrow small letter 's' has the same formation.


10.  There is a 60° rightward slant (copybook at that time).

11.  There is an extra stroke on the underscore only on numbers 4, 5 and 8.

12.  The top stroke from the small letter 'o' is connected to the next letter (i.e. 'o' to 'n').

13.  The narrow capital letter 'S' has the same formation.

14.  The connection of the small letter 't' to 'r' has the same formation.

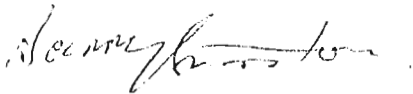
15.  The same rhythmic flow is in all the documents; also the same pressure
/continued..... Page 2

Comparison of Historical Signatures... continued.....
Attention: Mr. Tom Greeves

18 July 1991

is exerted to produce the stroke quality as far as I can ascertain
from photocopies, as submitted for comparison.

Considering the various factors found in all the documents as indicated, it is
my considered opinion that they are all written by the same hand, the slight
differences being due to natural variations throughout the time scale which all
intelligent people will show, especially when there has been a qualification; or
any event which adds more personality structure, as probably applies in this
case: for instance a higher status.



BARRY BRANSTON

APPENDIX 4.1

R.I.B.A. Member Classification

Quoted from: *Architects and Others*: An annotated list of people of South African interest appearing in the Royal Institute of British Architects Journal, 1880-1925. A Biography compiled by Sally May Brown. Johannesburg: University of Witwaterstrand. Department of bibliography, Librarianship and Typography, 1969.

Classes of members of the Royal Institute of British Architects.

Fellows: F.R.I.B.A.

"A personshall at the time of admission be either

a) an Associate of the Royal Institute or a person who has passed an Examination qualifying for admission to the class of Associates; or

b) a Licenciate who has passed such examination or Examinations as may from time to time be prescribed by the Council as a qualification for the admission of Licentiates to the class of Fellows. Provided, however that the Council shall have the power to elect and admit as a Fellow, any Architect who shall have attained the age of thirty years and shall have been engaged as a principal for at least seven successive years in the practice of architecture as to whom the Council may resolve that it is desirable to elect and admit as a Fellow" (Extract from the Supplemental Charter 1909)

Associates: A.R.I.B.A.

"Associates shall be persons engaged in the study or practice of Architecture, who had attained the age of twenty-one years. From the date of this our Charter (28 March 1887) every person desiring to be admitted an Associate shall be requires to pass or to have passed such Examination or Examinations as may be directed by the Royal Institute." (Extract from the Charter.)

"Licenciates: Licenciate R.I.B.A.

Licenciates shall be architects who have attained the age of thirty years and either:

- a) have been engaged as principals for at least five successive years in the practice of architecture, or,
- b) have been engaged for at least ten consecutive years in the practice or study of architecture." (Extract from the Supplemental Charter 1909)

Students: Student R.I.B.A.

"Every student who has passed the Examination for that grade, instituted or to be instituted by the Royal Institute, and shall have satisfied such other requirements as the Council may from time to time prescribe as applying to students, shall be entitled to be registered as 'Student of the Royal Institute of British Architects'." extracts from the Charter)

Honorary Fellows: Hon. F.R.I.B.A.

"Honorary Fellows shall be members of the Royal Family, persons who hold or have held high office in Government of the United Kingdom or of India or of any colony or Dependency of the United Kingdom, and other illustrious or distinguished persons to be elected as the Royal Institute may from time to time determine." (Extract from the Charter)

Honorary Associates: Hon. A.R.I.B.A.

"Honorary Associates shall be persons not professionally engaged in practice as Architects who by reason of their position or eminence in art, science, or literature, or their experience in matters relating to Architecture, may appear to the Council to be able to render assistance in promoting the objects of the Royal Institute." (Extract from the Charter)

APPENDIX 4.2

Registration Certificate : Street-Wilson.

Associate of the Royal Institute of British Architects.

Royal Institute of British Architects.

INCORPORATED IN THE SEVENTH YEAR OF WILLIAM IV.

Declaration.

I, THE UNDERSIGNED, being elected an ASSOCIATE of the Royal Institute of British Architects, do hereby declare that I am engaged in the Study or Practice of Civil Architecture, and have attained the age of twenty-one years; that I will not receive or accept any pecuniary consideration or emolument from any builder or other tradesman whose works I may be engaged to superintend; that I will not take out quantities for works to be executed under my own superintendence except with the concurrence of my client, and unless the said quantities are paid for by him; and that I will not have any interest or participation in any trade contract, or materials supplied at any work the execution of which I may be engaged to superintend. And I further promise and engage that I will be governed by the Charter of Incorporation, and by the By-Laws of the said Institute, or as they may be hereafter altered, amended or enlarged; and that by every lawful means in my power I will advance the objects of the said Institute, and will attend the Meetings thereof as often as I conveniently can: provided that whenever I shall signify in writing to one of the Secretaries for the time being, that I am desirous of withdrawing my name therefrom, I shall (after payment of any arrears of Subscription which may be due from me at that period) be free from this obligation.

Witness my hand this

1st

day of

March

1882

Name

Wm. A. Smith

Address

420 Holloway Road

Royal Institute of British Architects.

INCORPORATED IN THE SEVENTH YEAR OF WILLIAM IV.

Names and
Titles in full

William Threl Wilson

Address

of

420 Holloway Road, N.

having read the Charter and By-Laws of the Royal Institute of British Architects, and being duly qualified and willing to conform thereto, is desirous of being admitted as an ASSOCIATE.

The candidate must
write on this adjoining
blank space a
statement referring
to his professional
education

I was articled to Mr Wm F. Gwyther & served four years viz
from 1871 to 1875. for six months was with Mr Gwyther &
then with Mr J. Macdonald Anderson for fifteen months,
afterwards going to the late Mr Robt. Hesketh for two years or half
since I have been with Mr Chas J. Shopper - I have studied also
in the school of Art & Architecture Museum &c.

We the undersigned do, from our personal knowledge of him, propose

and recommend him to the Council for Ballot.

Witness our hands this fifth day of November 1881

Ordinary Signature of Candidate.

Wm Threl Wilson

Maurice Anderson

Wm W. Gwyther

R. Simpson Hesketh

Fellows.

Approved by the Council,

7th of Nov. 1881

Sup Edmund Street

Signature of Chairman.

Elected at the Ordinary
Meeting held on Monday,

9 of Jan'y 1882

J. Hecplee a c c i s

Signature of Chairman.

9, Conduit Street, Hanover Square,
London, W.

Maurice Anderson Hon. Sec.

William H. White Secretary.

APPENDIX 4.3

Registration Certificate : Street-Wilson.

Fellow of the Royal Institute of British Architects

A.

[FELLOW]

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

INCORPORATED BY ROYAL CHARTERS SEVENTH WILLIAM IV. AND FIFTIETH VICTORIA

No. 9 CONDUIT STREET, HANOVER SQUARE, LONDON, W.

Names and
Titles in full.*William Sherrin Wilson*Place of
Business.*Union Castle Office, West St. Dunstan*Place of
Residence.*Windmill Hill, Ridge Road, Essex Dunstan*

having read the Charters of Incorporation and By-Laws of The Royal Institute of British Architects, and being duly qualified thereunder, is desirous of being admitted as a FELLOW.

A separate written statement by the candidate, giving particulars of his professional education and works, with the working drawings and photographs of some of his executed works, and a separate written statement by one of the undersigned, giving particulars of his acquaintance with the Candidate's professional education and works, accompany this Nomination.

We the undersigned do, from our personal knowledge of him, propose and recommend him for election.

This date
must be
filled in.

Witness our hands this

day of

190

The Candidate must write his ordinary Signature here, and fill in date of so doing.

*W. Sherrin Wilson**2* of *March* 190*6**Herbert Baker*

Fellow.

Francis Edward Maser

Fellow.

Arthur Webb

Fellow.

Approved by the Council,
21st of May 1906

John F. Fetherston

Signature of Chairman of the Council.

Elected at the Business
Meeting held on Monday,
11th of June 1906

- 476 -

Wm. Haydon

Signature of Chairman of the Business Meeting.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

INCORPORATED BY ROYAL CHARTERS SEVENTH WILLIAM IV. AND FIFTIETH VICTORIA

No. 9 CONDUIT STREET, HANOVER SQUARE, LONDON, W.

PROPOSER'S SEPARATE STATEMENT.

This Statement must be filled up, in accordance with the marginal instructions, and subscribed by one of the Fellows who have signed the candidate's Nomination as Fellow.

To the President and Council of The Royal Institute of British Architects:

GENTLEMEN,—I have the honour to inform you that my acquaintance with

me
dress
tificate.

Mr W. Stuart Wilson of Union-Castle
Buildings & Durban. Natal. S.A.

who is desirous of being admitted a Fellow of the Royal Institute of British

Architects, commenced in the year 1900 and that he holds a
leading position as architect in Natal
and is a thoroughly qualified practitioner

ate
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nouns
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ate's
ional
on.

I am also acquainted with some of the works executed under the candidate's

ention
f the

an
Pro-
and
one.

superintendence, viz.:— the New Town Hall at
Maritzburg. The Public Market at
Durban. The New Railway Station
buildings at Durban. The New R.C.
Church at Durban etc. etc.

I, further, believe that he is a fit and proper person to be admitted a Fellow
of the Royal Institute.

Signature of Proposer

Francis Edward Masey:

FELLOW.

Address

Rhodes Building. Capetown.

CANDIDATE'S SEPARATE STATEMENT.

Every candidate desirous of being admitted a Fellow of The Royal Institute of British Architects must furnish the Council with information suggested in the items hereinbelow

ITEMS	DATES	DESCRIPTION
I. - The manner in which he commenced his professional education, and the date of commencing same.	1870 5 1877 1878 5 1880	Trained to the late Wm. Nothard Gwyther served in his office after 2 years as assistant during which time I went thro' the South Kensington Art Schools & took certificates & did much measuring up of old buildings. Attended at King's College lectures & went into Mr. McFiear Anderson's office for about 2 years & then afterwards to the late Mr. Robt. Hesketh's office as assistant & from thence to Mr. J. Chapples office for about 12 months. ^{attended R.A. School London & spent 3 months in Italy.}
II. - Particulars as to his engagements, those spent in travelling, &c., before he commenced practice.	1884 5 1887	Commenced practice for myself in Redbridge St. E.B. then after a severe illness I was ordered abroad and left for South Africa in April 1887. After being in the Buller's work office for 6 months I again started practice & have continued to practice ever since, doing work in the Transvaal and Natal. For the last 10 years I assumed any red paper & late assistant Wallace Paton as partner in my firm.
III. - The year in which he commenced practice, and the locality.		
IV. - A list of the principal buildings in the location, situation, construction, Association, &c., of which he has been engaged as architect, since he commenced practice, indicating those of which he submitted working drawings and if practicable photographs.		Public works near Southwell (Competition) for Watermain & byway - 1890 - cost £38,000. Employed to reconstruct same after fire 1897 cost of £67,000. New Railway Dominion Station ^{Durham} for the Great North Road £53,000 New St. Peter's Church Station D. D. 30,000 and several other smaller D. D. &c. New Church, Middlesbrough Competition cost £20,000 D. St. Thomas, Ch. Durham 7,000 D. R.C. Cathedral, Protestant Schools Durham 40,000 Marion Stella Schools R.C. Durham Sanatorium for R.C. D. Westgate Ch. D. (St. Andrew's Hall) St. George's Evangelical Ch. D. New Bank of Africa Durham £60,000 D. D. R. Bury 12,000 Several large Warehouses and innumerable Dwellings, Shops &c. Scott's Theatre R. Bury - £24,000 Cockburn & Butcher Streets &c. Durham Casco Company New Office D.
V. - A list of any other artistic work of which he is the author.		

I hereby declare that the above statement made by me this second day of March 1906, is a true account of my professional education and works; that I have attained the age of thirty years; and that the buildings, to which the working-drawings and photographs I submit herewith relate, have been designed by myself.

Signature of candidate

1848 Jan 27 Leonor Canto Resolduero, Surber, Natal

APPENDIX 5

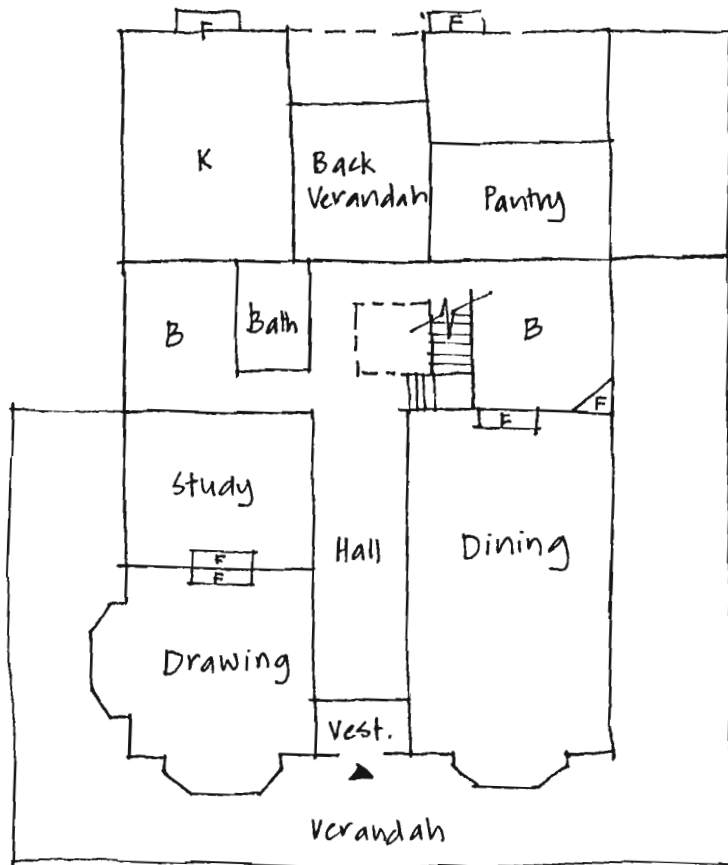
Residential-type buildings which do not relate directly to the text of this document in terms of authorship, date or building type have been included in the appendices. These include Tweedie Hall (A 5.1, c.1892), a villa which is assumed to be the work of William Street-Wilson, as there are no original drawings to support this, the double storey house designed by Street-Wilson in 1918, at 376 Ridge Road (A 5.2), since it is a house of note but does not fall within the time span studied in this dissertation, the Stellawood housing scheme (A 5.3, 1920) and two blocks of flats (A 5.4, 1922 and 1923).

APPENDIX 5

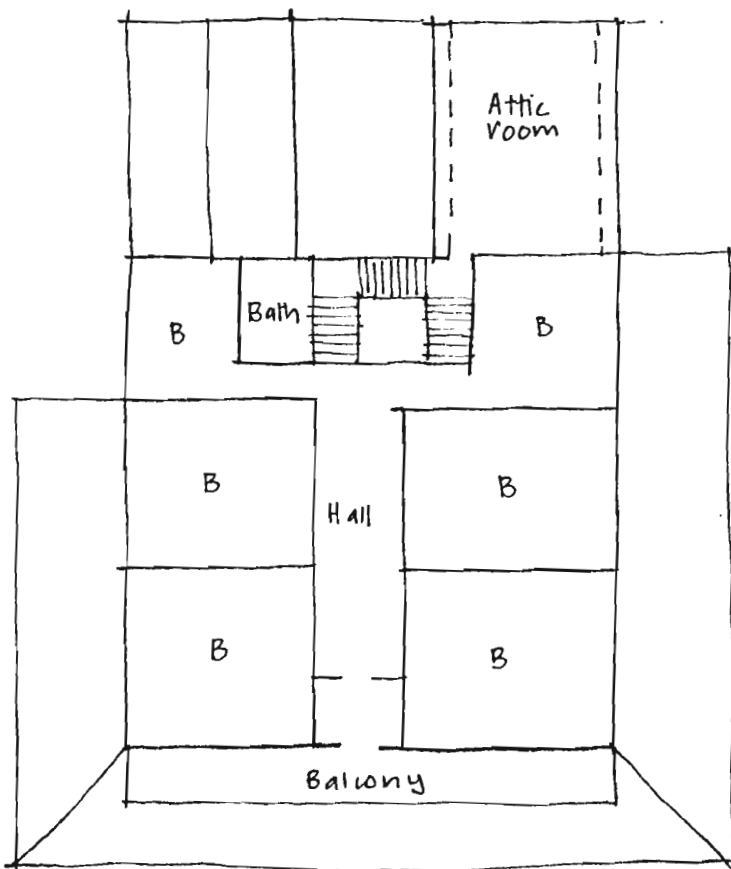
- 5.1 : Tweedie Hall, Street-Wilson (c 1892)
- 5.2 : 378 Ridge Road, Street-Wilson and Paton (1918)
- 5.3 : Stellawood Housing Scheme (1920) Street-Wilson and Paton. (1920)
- 5.4 : Flats : 222 Sydenham Rd, Street-Wilson and Paton. (1922)
344/350 Essenwood Rd, Street-Wilson and Paton. (1923)

House : TWEEDIE HALL
TWEEDIE, Natal Midlands
for JAMES MORTON

no existing drawings
± 1892



Sketch : Ground Floor Plan



First Floor Plan

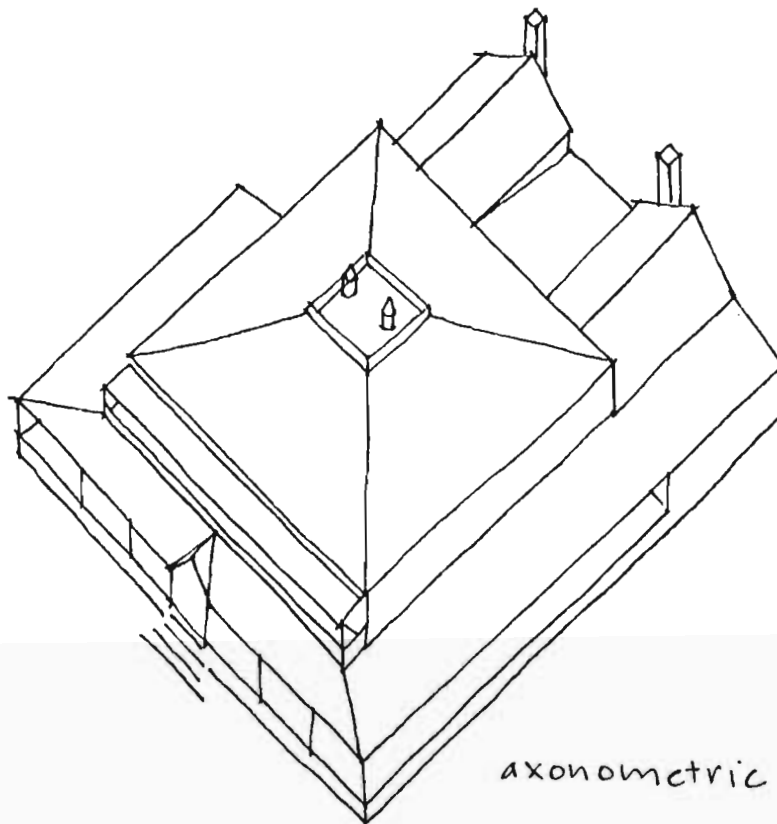
Fig 5.1a

-480-

TWEEDIE HALL

no existing drawings

± 1892





Entrance 'gablet'



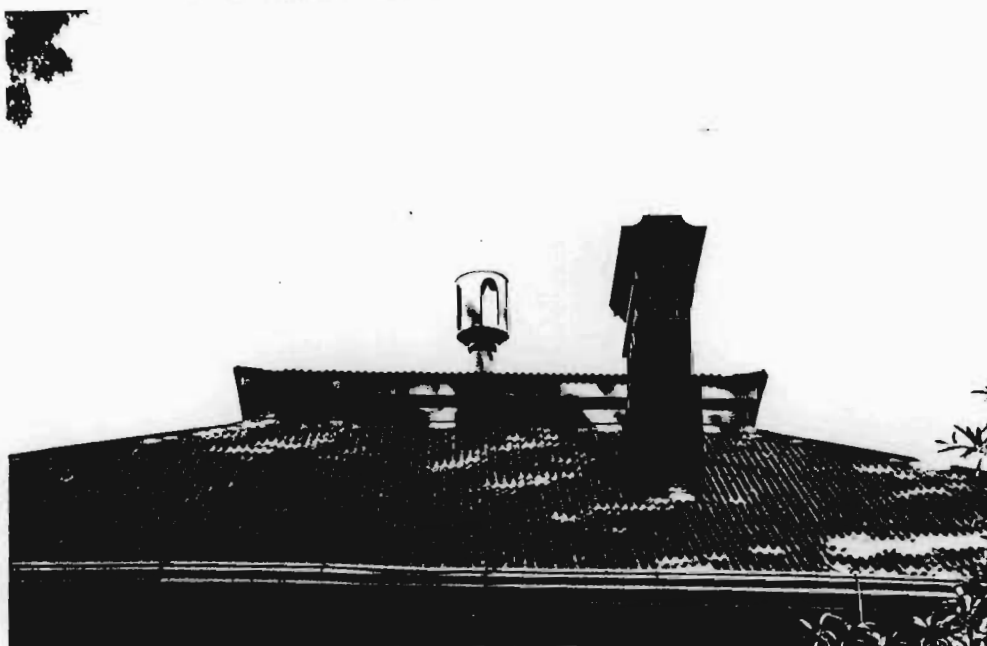
Sash window detail



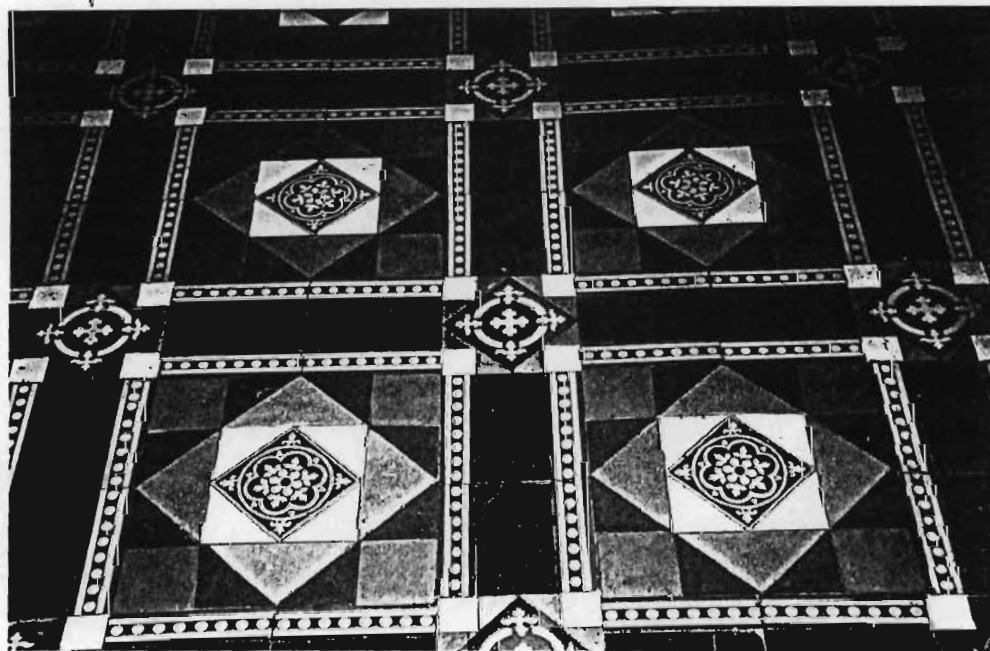
Verandah brackets



The back, service elevation



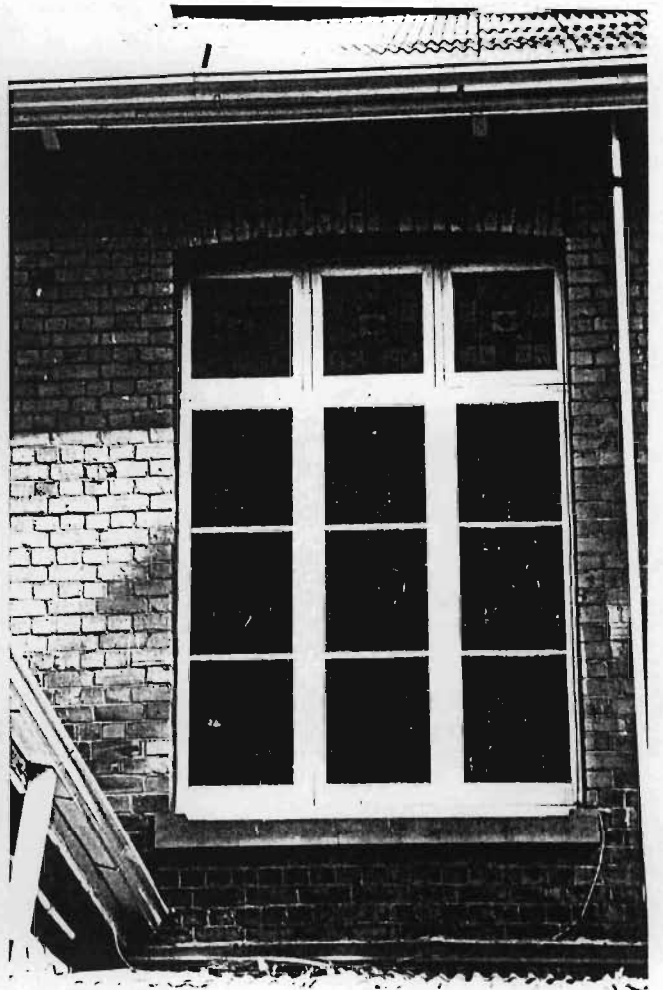
Roof details



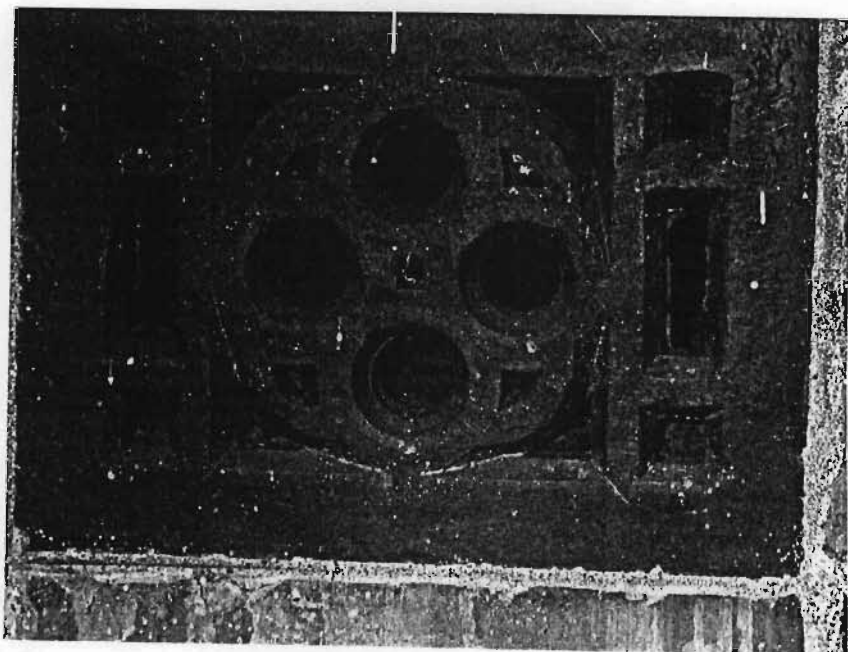
Encaustic tiles to Hall Fia 5.14



Doors to Dining Room



Window to stair



Wall Ventilator Fig 5.1c
-484-

378 Ridge Rd
1918

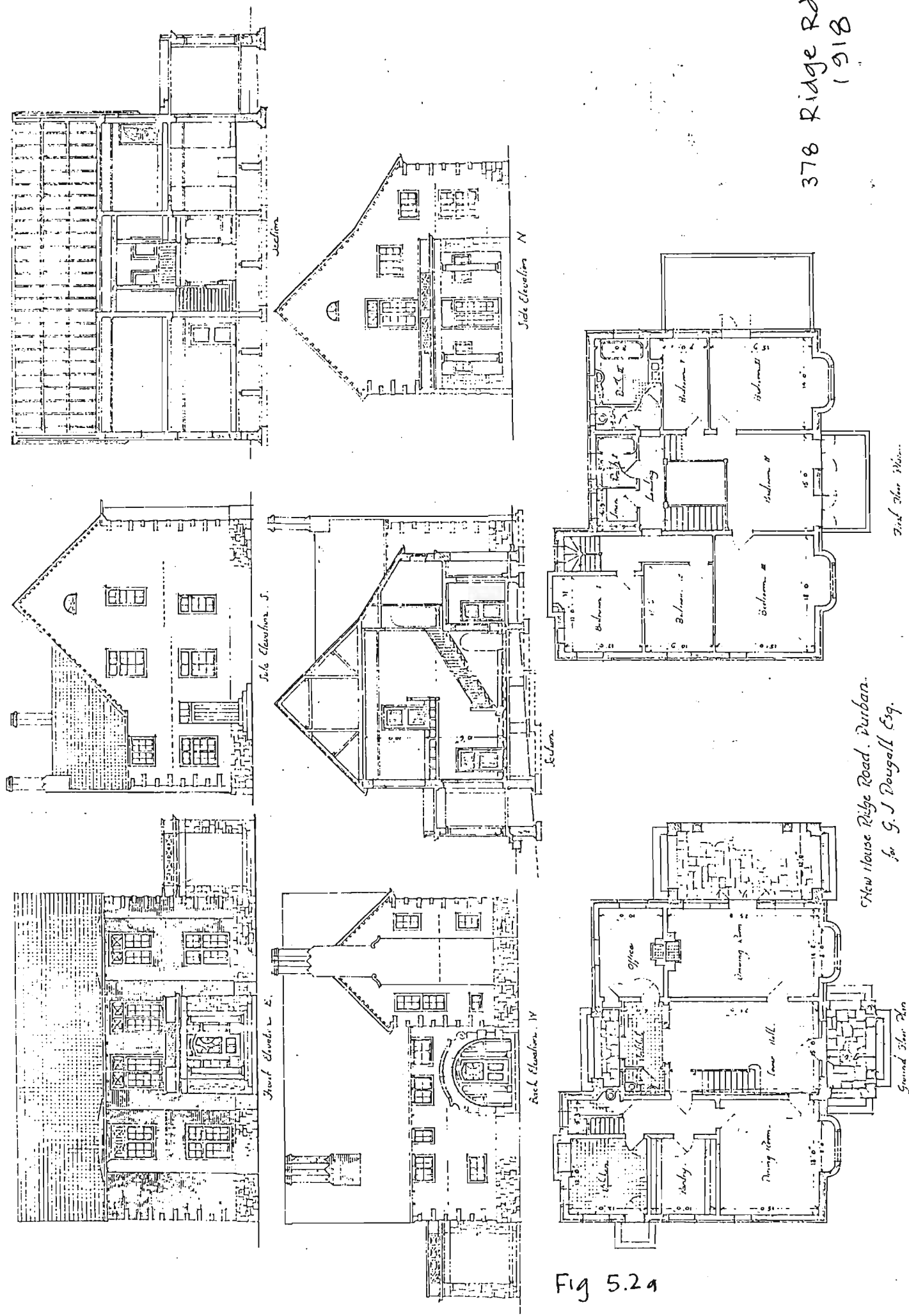
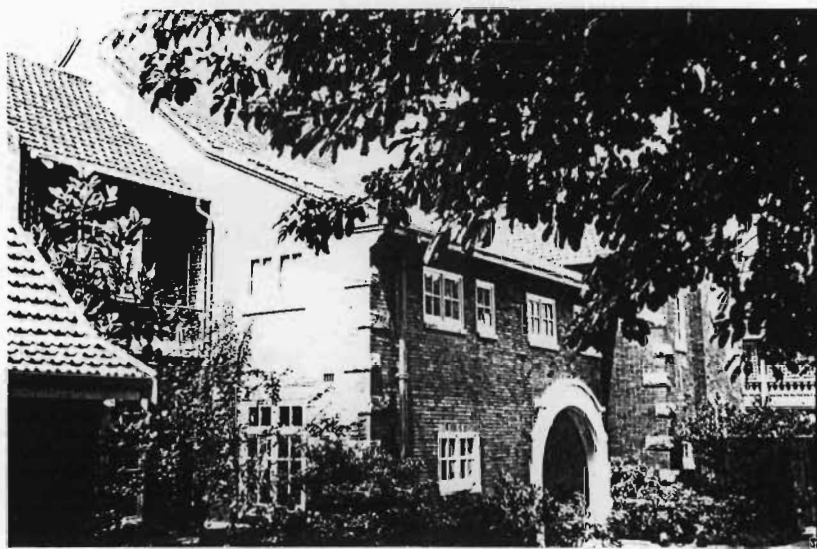


Fig 5.2a



Front elevation



Back elevation



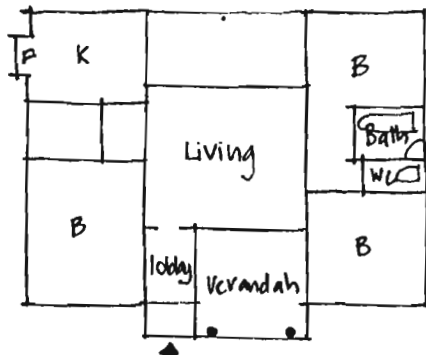
Bay window detail



Chimney detail

Borough of Durban Housing Scheme
STELLAWOOD DISTRICT

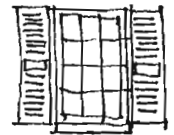
OD 579
1920



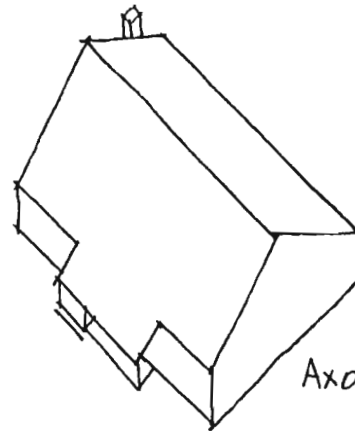
Plan TYPE A4



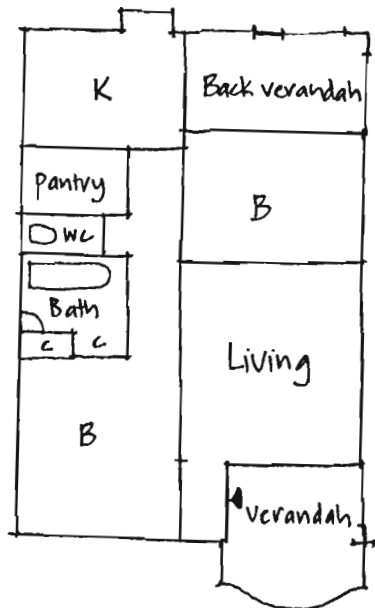
gable wall detail



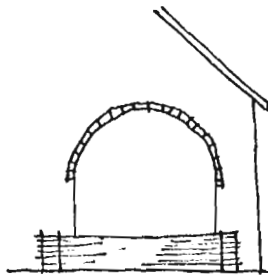
Window detail



Axonometric



Plan TYPE B'

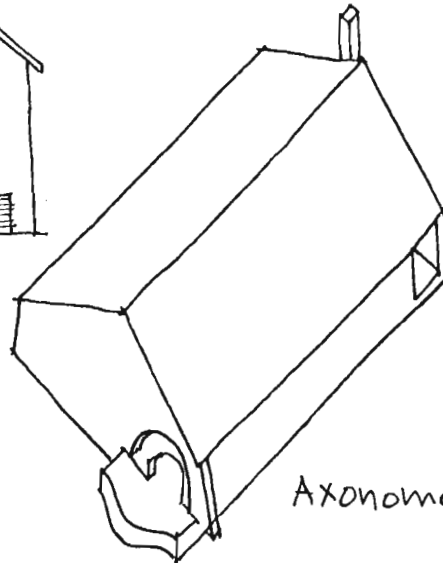
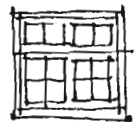


Verandah detail

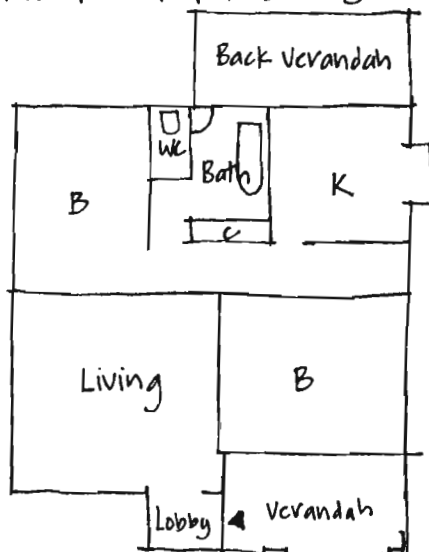


gable detail

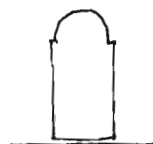
Window detail



Axonometric



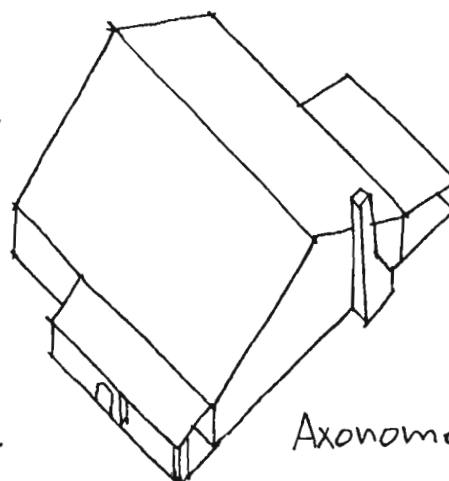
Plan TYPE B2



verandah detail



Window detail



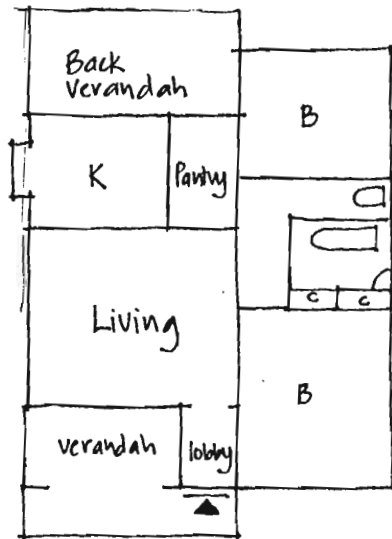
Axonometric

Fig 5.3a
- 487 -

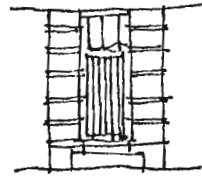
Street - Wilson and Paton

Borough of Durban Housing Scheme
STELLAWOOD DISTRICT

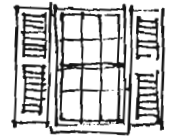
DD 579
1920



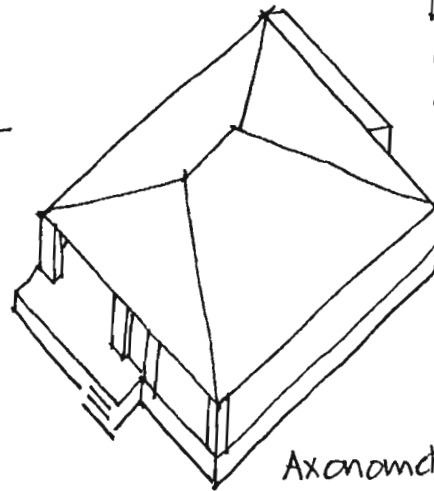
Plan TYPE B³



entrance
door detail



window
detail

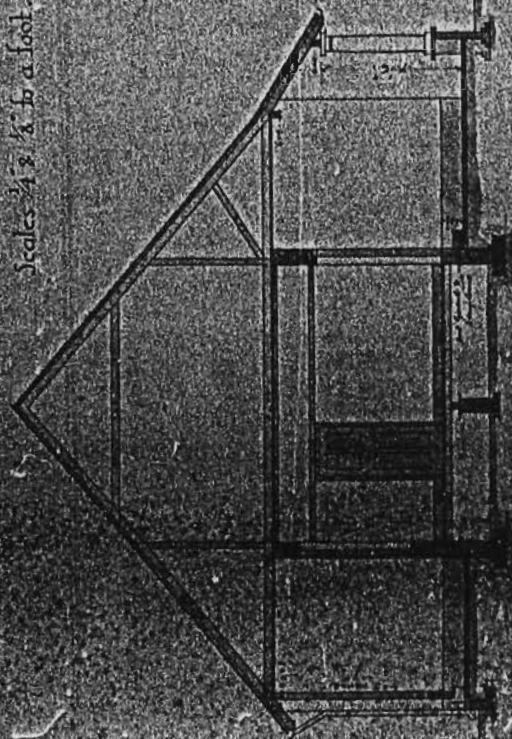


Axonometric

Fig 5.3b

Borough of Durban Housing Scheme.
Block C, Willowood District.

Scales $\frac{1}{2}$ inch to a foot.



Front Elevation

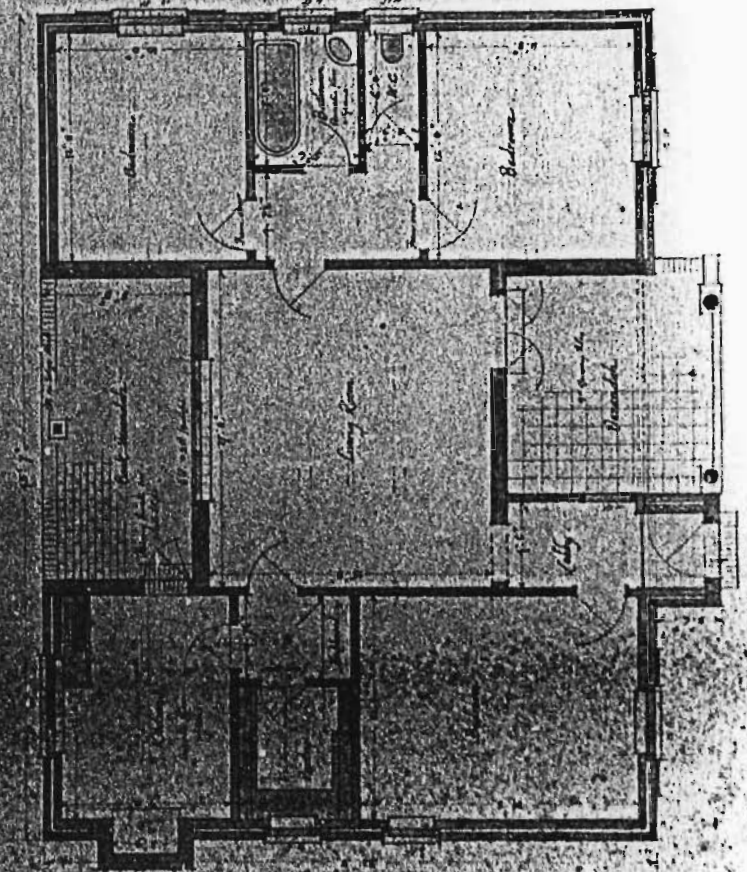
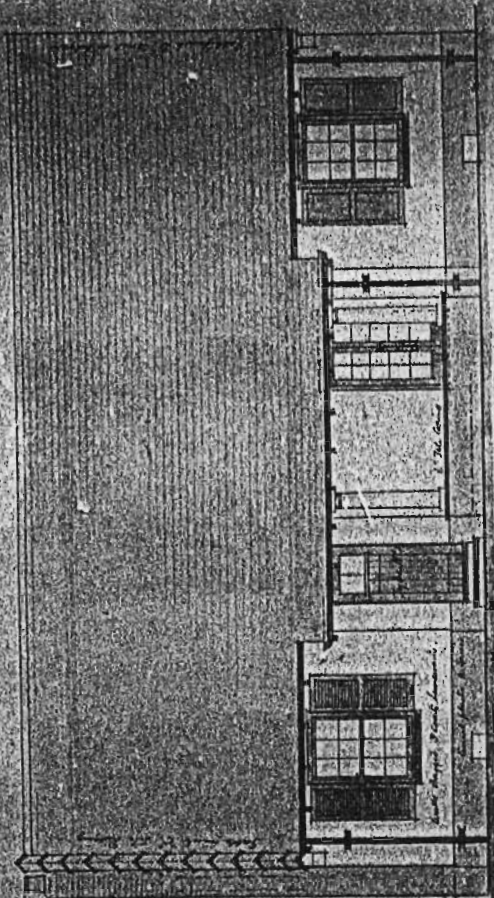


Fig 53c

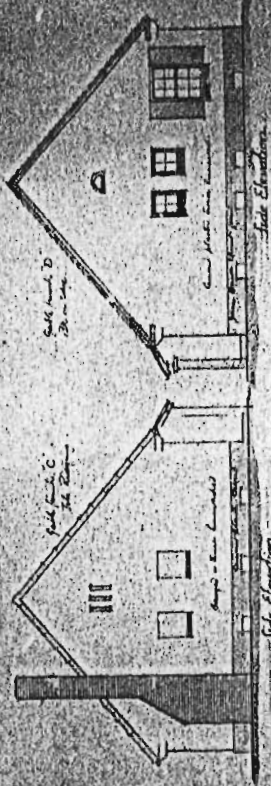
-489-

OD 579
1920

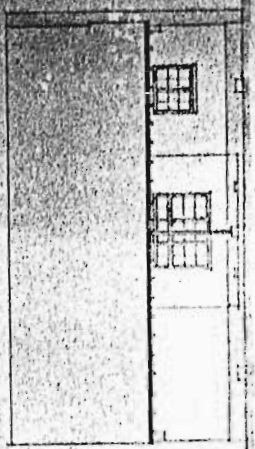
A2



Front Elevation



Side Elevation



Rear Elevation



Front Elevation

Alternative Arrangement for Porch

At 5.2.20, 1/2 inch scale, front elevation with 1/2 inch scale plan. Same as before, but with 1/2 inch scale plan. Same as before, but with 1/2 inch scale plan.

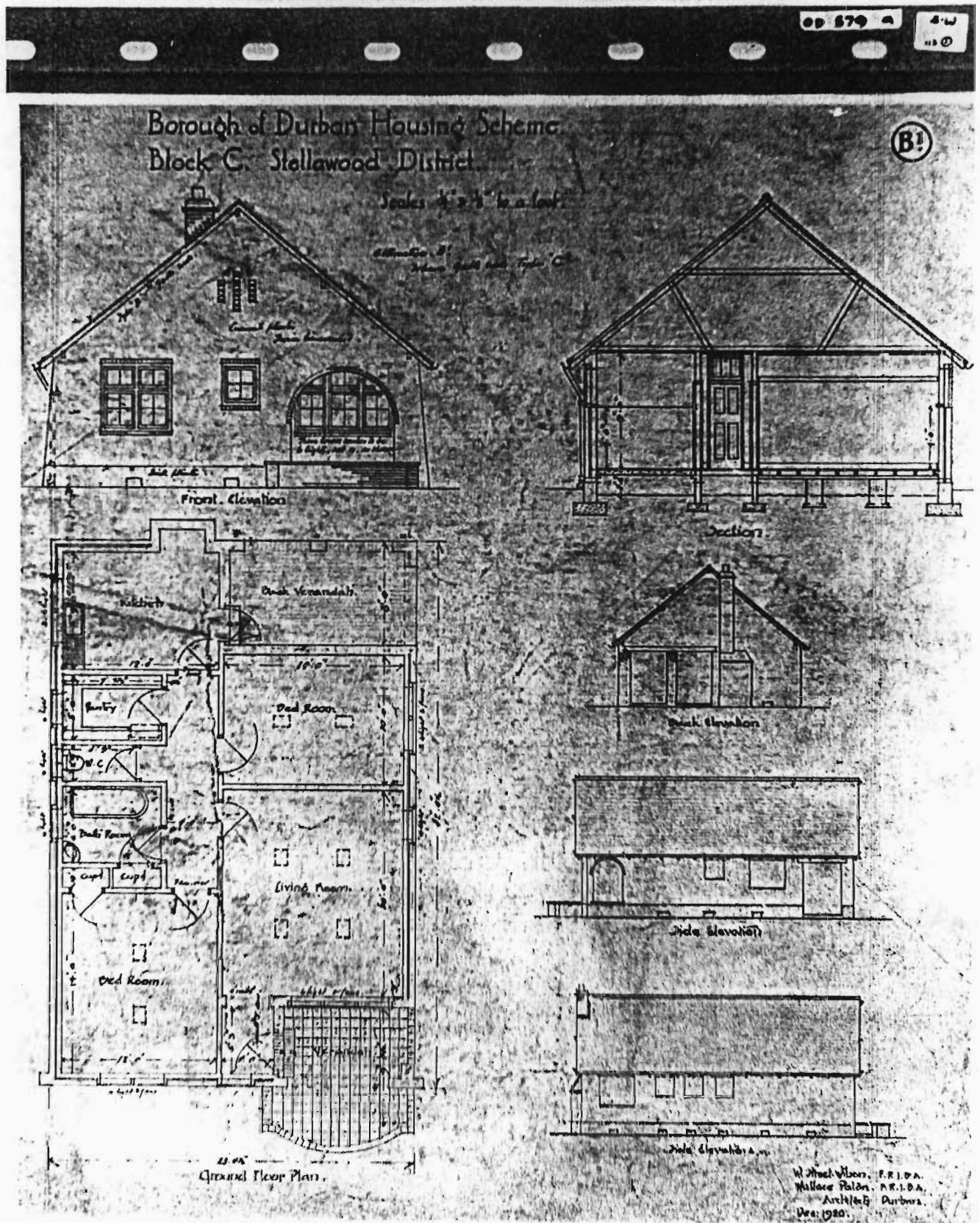


Fig 5.3A

OD 579
1920

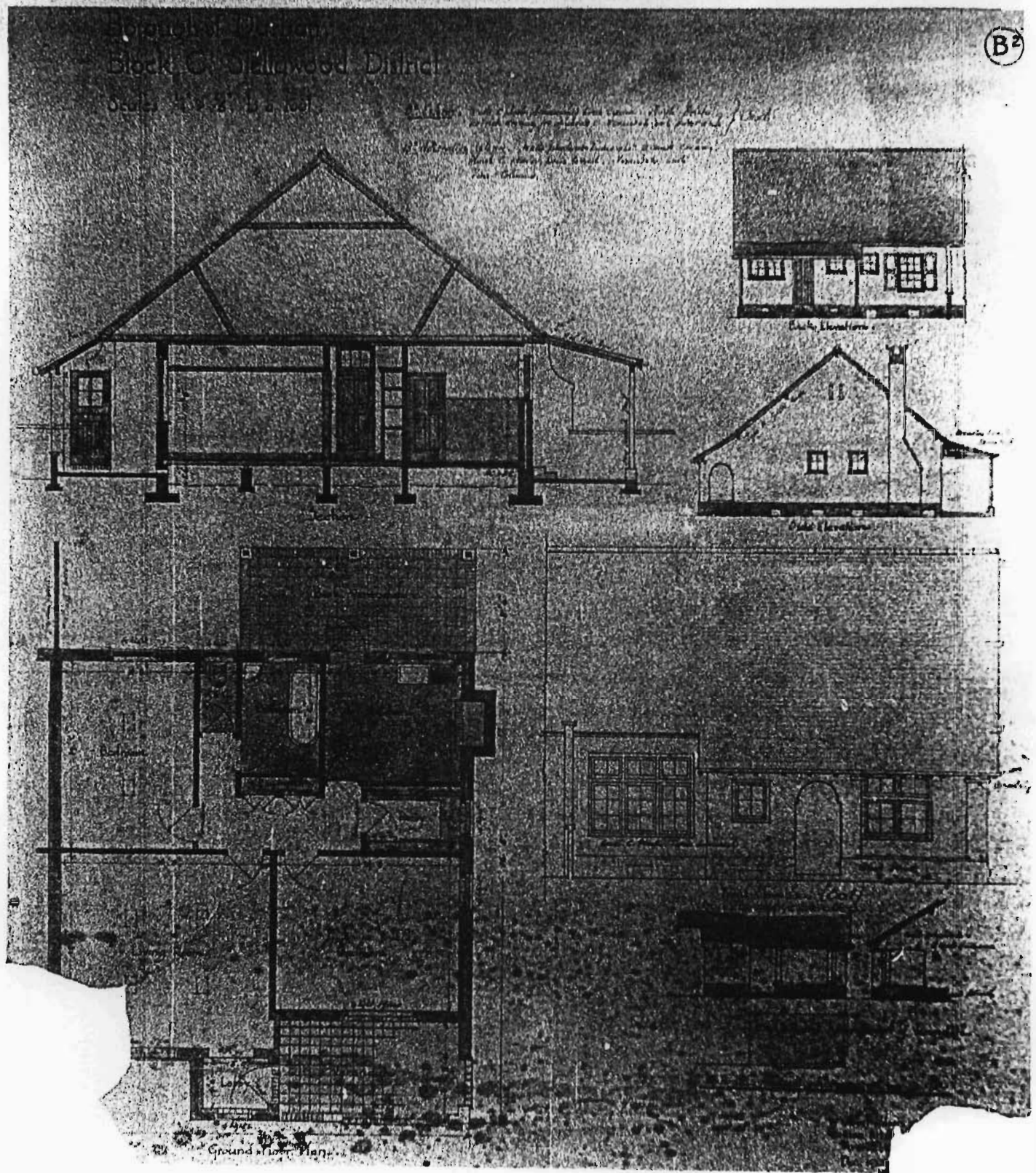
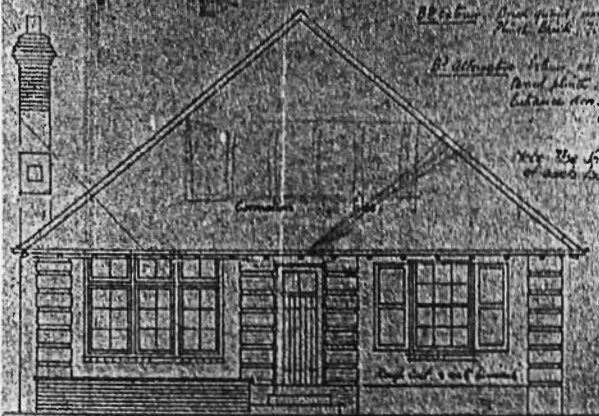


Fig 5.3e

OD 579
1920

Borough of Durban Housing Scheme
Block C. Stallwood District. Scales 1/8" = 1' to a foot.

B3

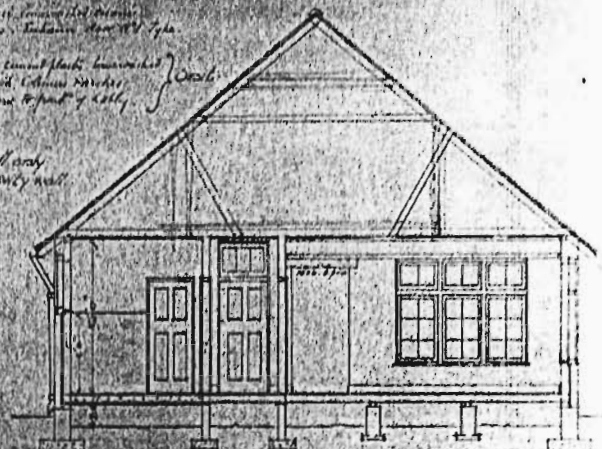


Front Elevation

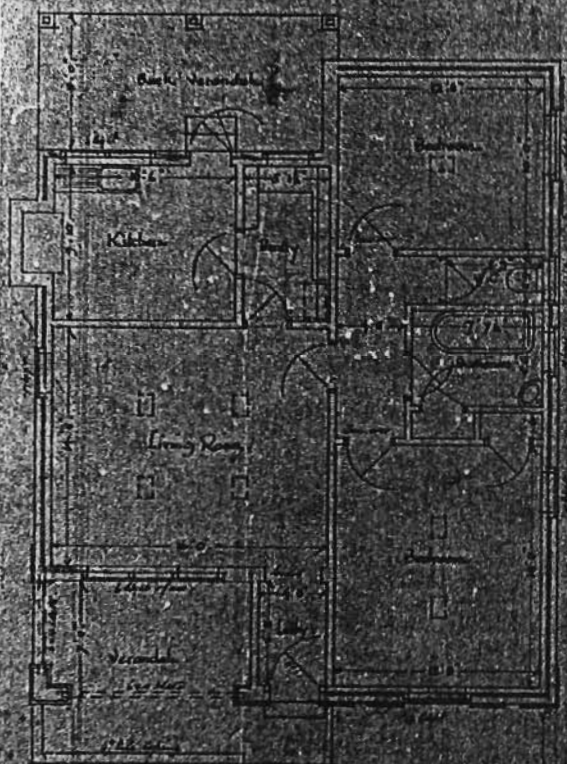
Block C. - Small quiet, well-ventilated house, constructed of brick.
Paint, white, with blue trimmings. Entrance door 10' x 7' 6".

Block C. - House on brick piers, small front porch, central
front door, entrance with 10' x 7' 6" porch.
Entrance door 10' x 7' 6", window 10' x 7' 6".
10' x 7' 6" type.

Note: The front porch wall may
or may not be of stone or brick.



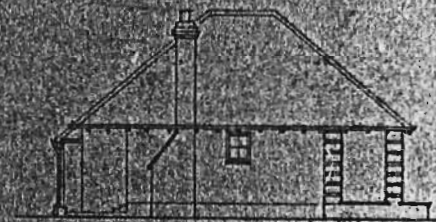
Side Elevation



Ground Floor Plan



Side Elevation



Side Elevation



Rear Elevation



Rear Elevation

W. J. H. W. W. F. R. S. A.
W. J. H. W. W. F. R. S. A.
Architect - Durban.
Dec. 1920.

Fig 5.3f

-492-

OD 579
1920



TYPE A4



TYPE A4 detail

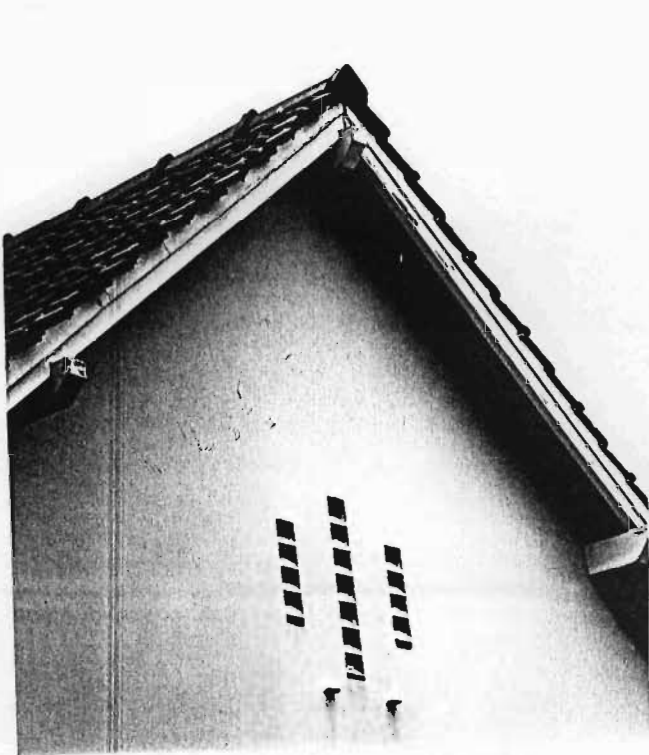


Fig 5.3g

TYPE B1



TYPE B2



TYPE B2 details



TYPE B3

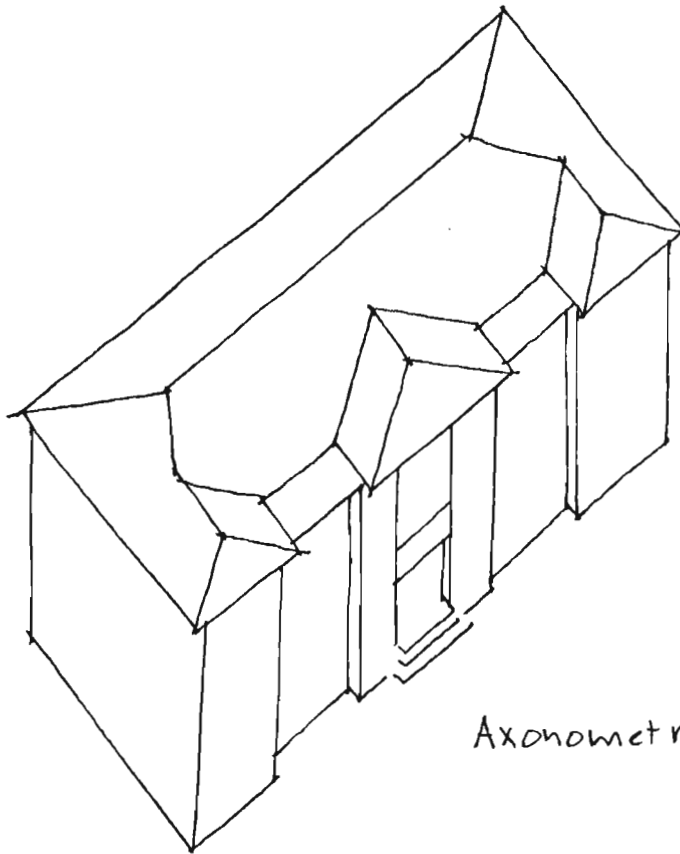
Proposed Residential Flats

DD 336

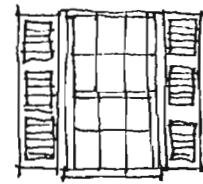
SYDENHAM ROAD no 222

1922

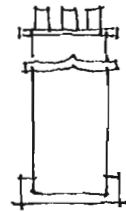
for THE EASTERN TELEGRAPH
COMPANY, LTD



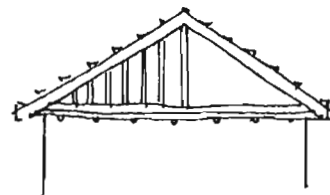
Axonometric



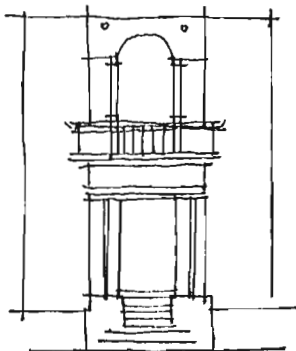
window detail



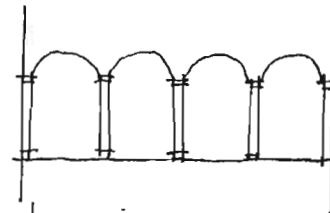
chimney detail



Roof detail



Entrance detail
to vestibule



loggia
Detail

Fig 5.49

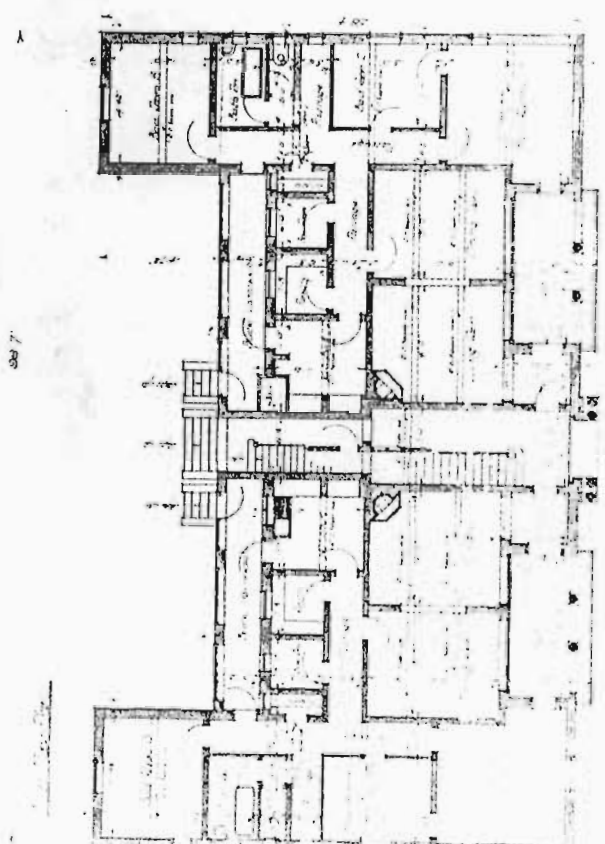
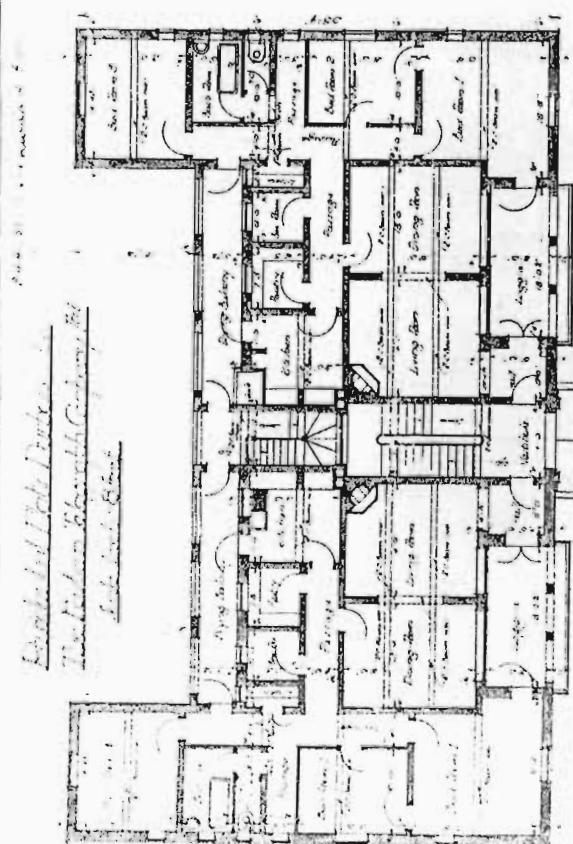
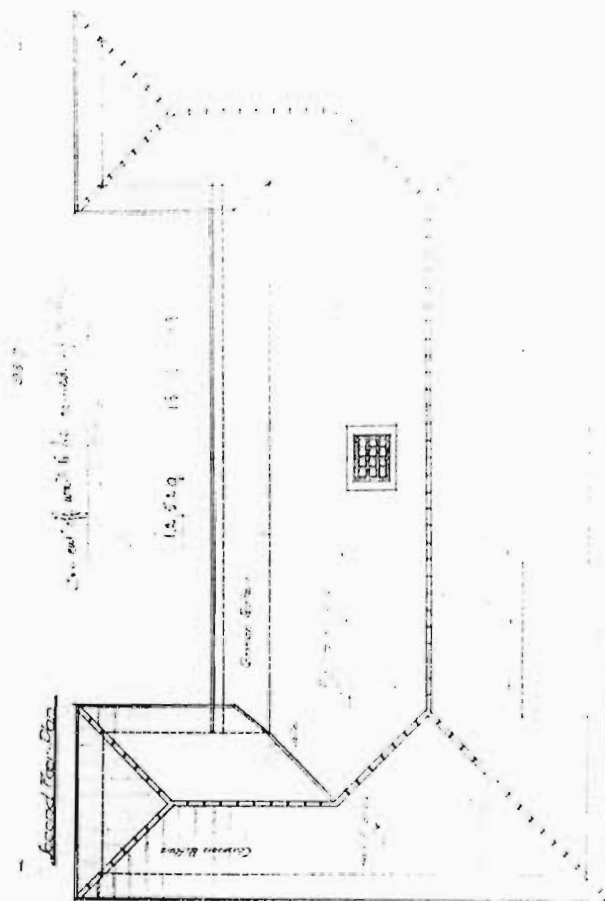
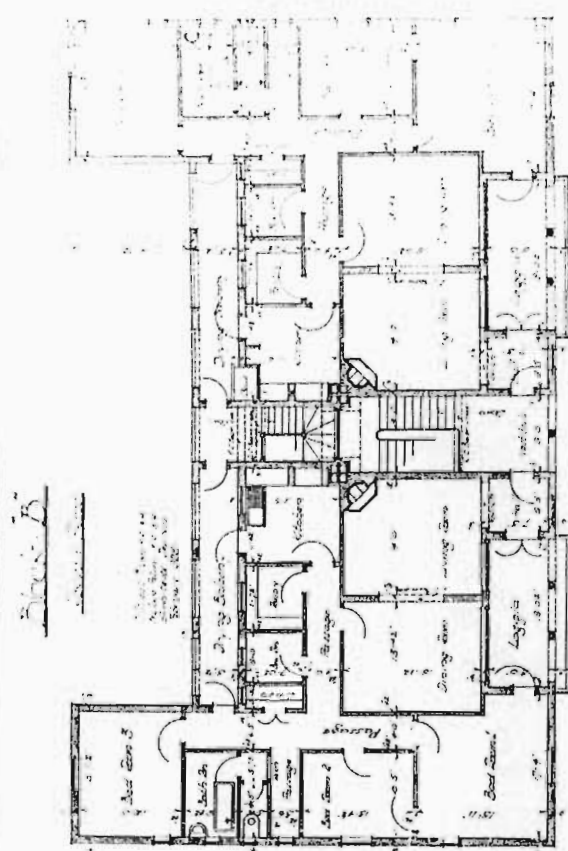
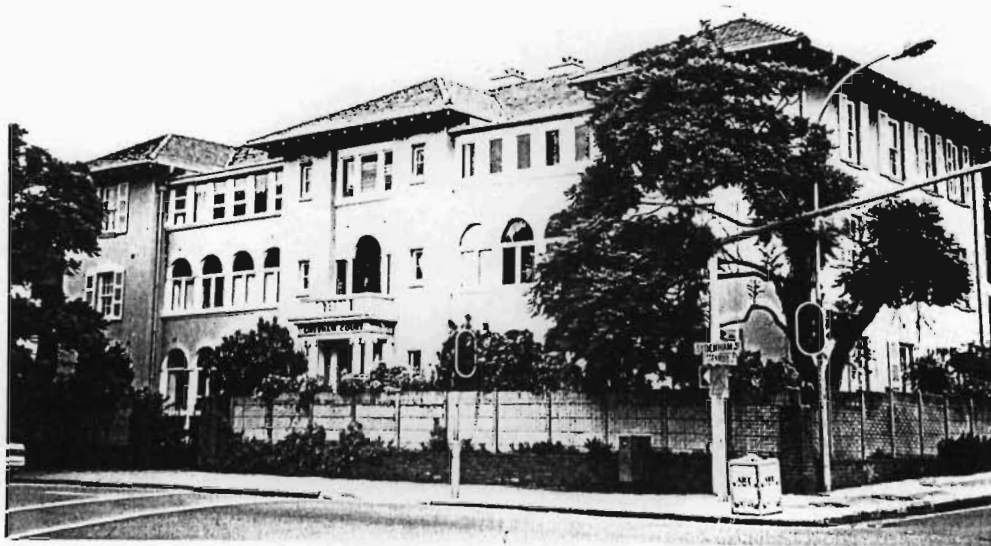


Fig 5.4b



"Gresham Court"



Entrance
portico



Detail, front doors



Fig 5.4d

window detail
-498-

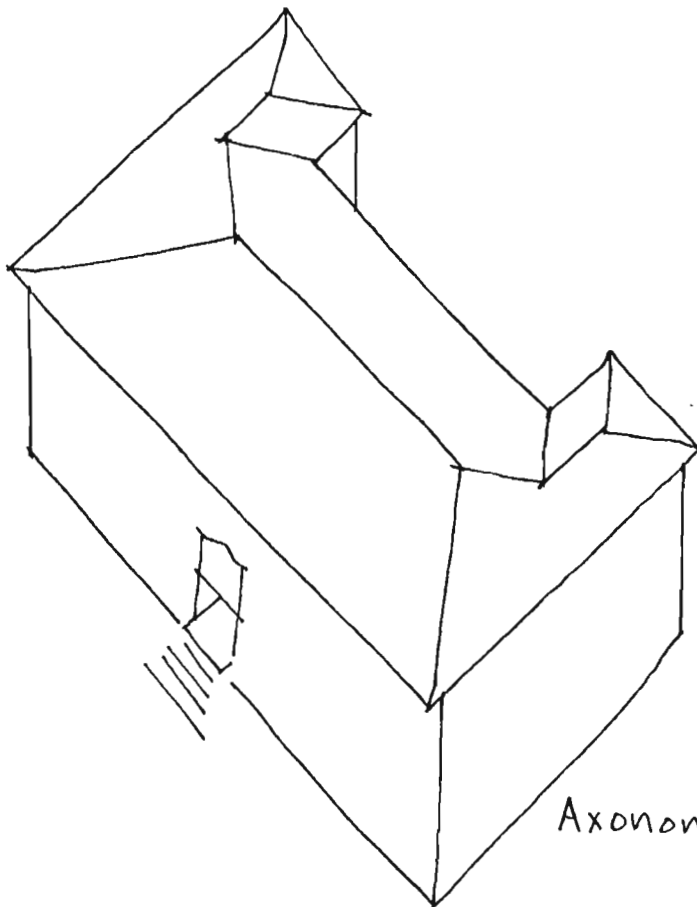
Residential Flats

OP 316

ESSENWOOD ROAD no 344/350

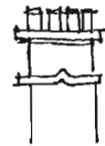
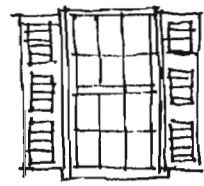
1923

for THE EASTERN TELEGRAPH
COMPANY, LTD



Axonometric

window detail



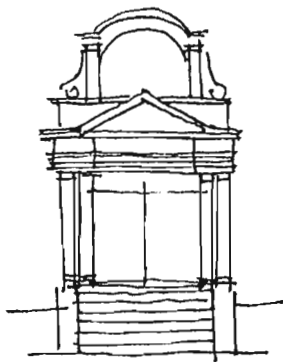
chimney detail



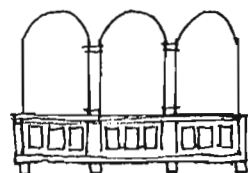
window to hall



roof detail



Entrance detail to
Vestibule



loggia detail

Fig 5.4c

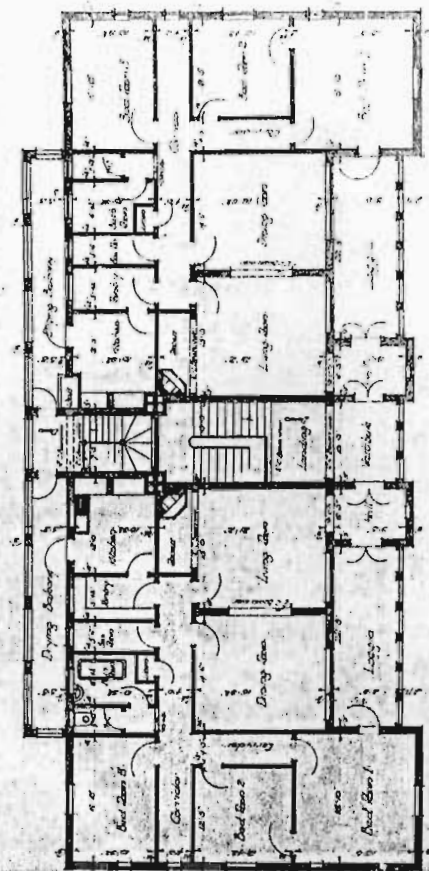
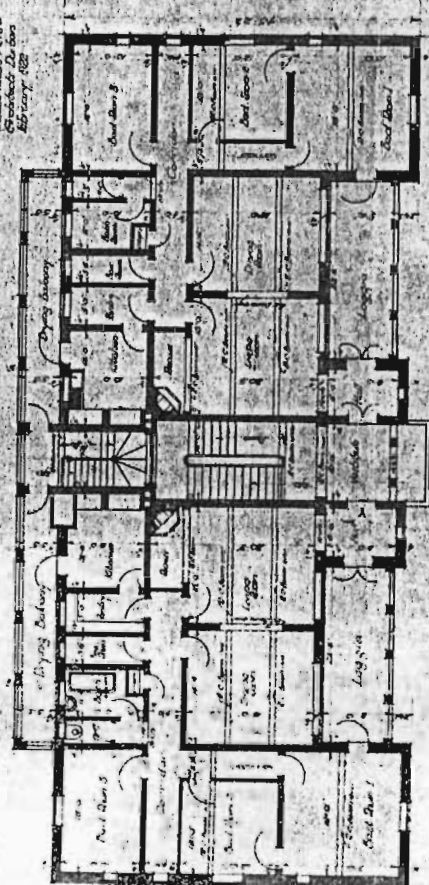
222 1/2 Ave. 1st

Residential 11th Dubois
The Eastern Electric Company Ltd.
1001 10th St.

Block A
[Rear View]

12 3 12 3

10' 0" 10' 0" 10' 0" 10' 0"



10' 0" 10' 0" 10' 0" 10' 0"

10' 0" 10' 0" 10' 0" 10' 0"

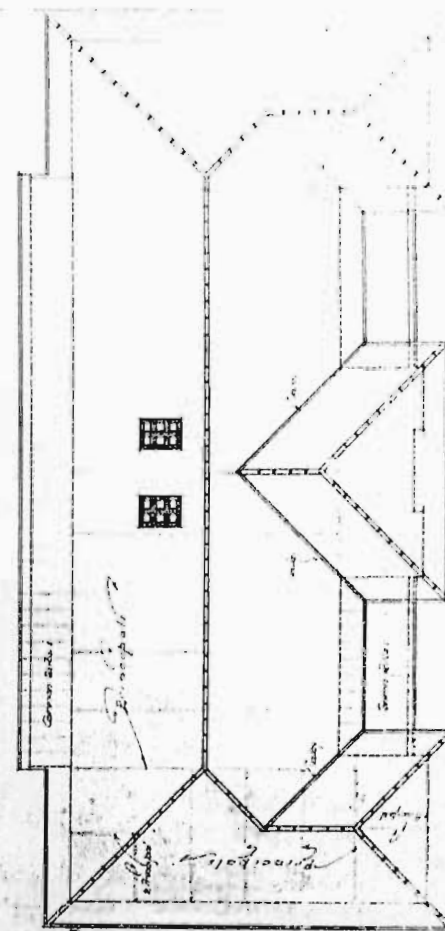
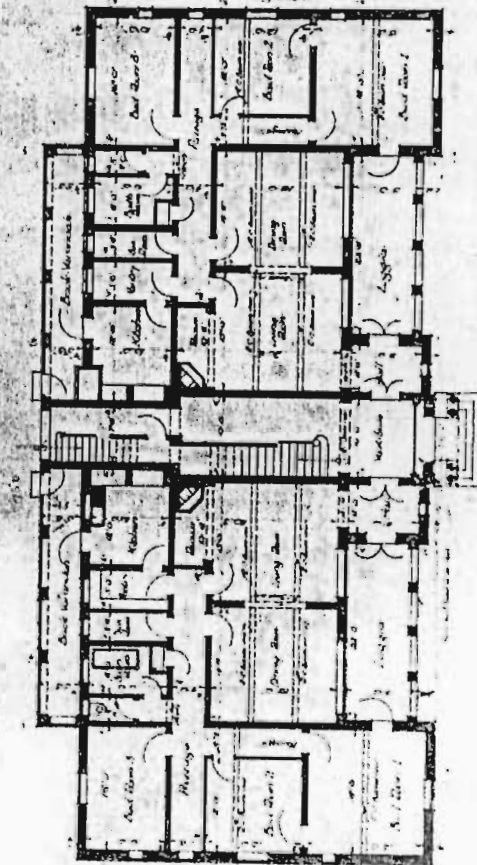


Fig 5.4f

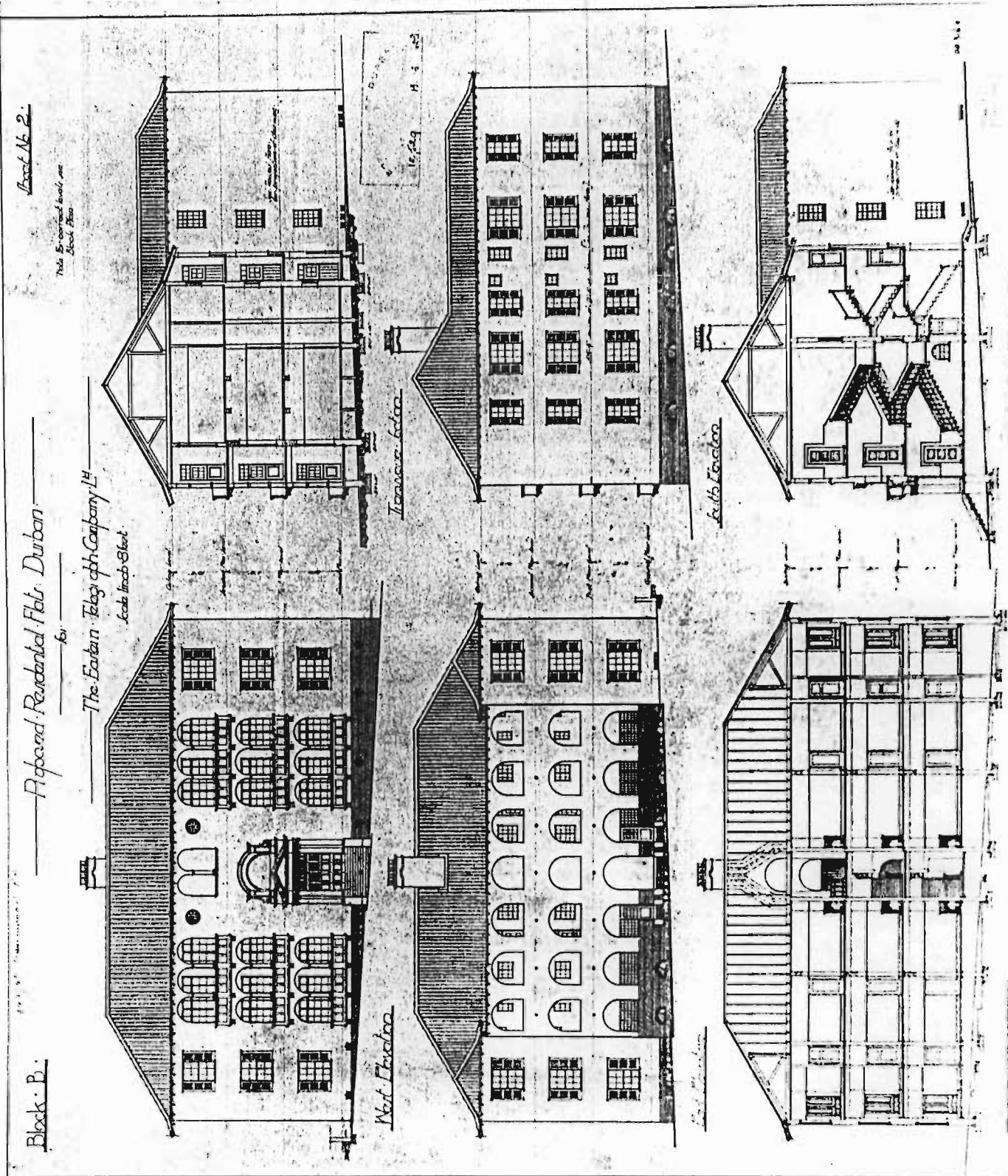


Fig 5.4g

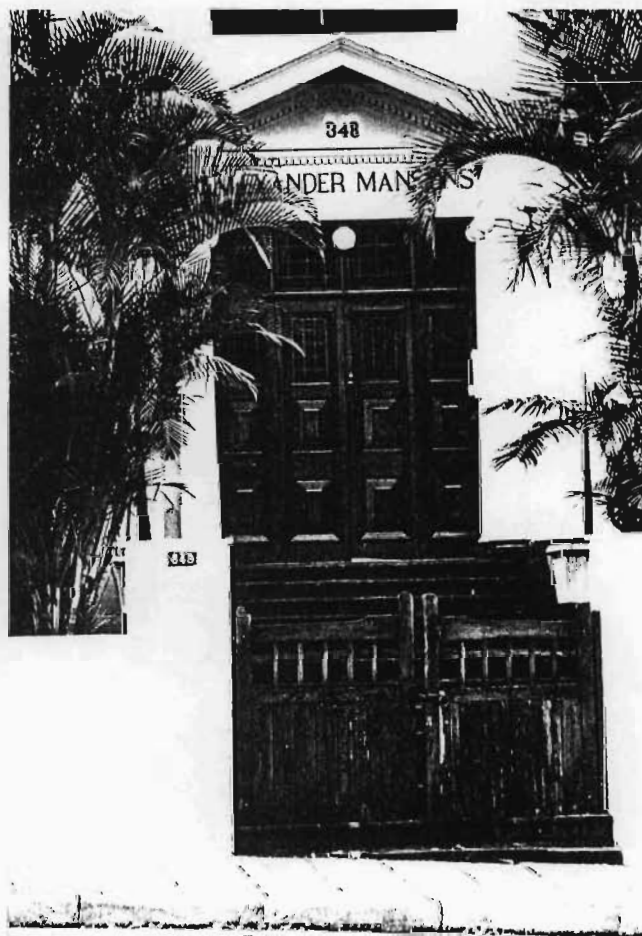
OD 316
1923



"Alexander Mansions"



Entrance portico



Entrance doors

Fig 5.4h

APPENDIX 6

Locality Map

The map locates the positions of the original houses found on the Berea and in the Glenwood and Morningside areas of Durban.

LIST OF ILLUSTRATIONS

Abbreviations

(U.N.) : University of Natal, the Barrie Biermann architectural library

APPENDIX 5 :

5.1 :	Tweedie Hall, Street-Wilson (c 1892)	All sketches and photographs by the author
5.2a :	378 Ridge Road, Street-Wilson and Paton (1918)	City Engineers Department, Durban
5.2b :	378 Ridge Road, Street-Wilson and Paton (1918)	Author
5.3a :	Stellawood Housing Scheme Street-Wilson and Paton (1920)	Author
5.3b	Stellawood Housing Scheme Street-Wilson and Paton (1920)	Author
5.3c	Stellawood Housing Scheme Street-Wilson and Paton (1920)	OD 579 (U.N.)
5.3d	Stellawood Housing Scheme Street-Wilson and Paton (1920)	OD 579 (U.N.)
5.3e	Stellawood Housing Scheme Street-Wilson and Paton (1920)	OD 579 (U.N.)
5.3f	Stellawood Housing Scheme Street-Wilson and Paton (1920)	OD 579 (U.N.)
5.3g	Stellawood Housing Scheme Street-Wilson and Paton (1920)	Author
5.3h	Stellawood Housing Scheme Street-Wilson and Paton (1920)	Author

5.4a :	222 Sydenham Rd, Street-Wilson and Paton. (1922)	Author
5.4b :	222 Sydenham Rd, Street-Wilson and Paton (1922)	OD 336 (U.N.)
5.4c :	222 Sydenham Rd, Street-Wilson and Paton (1922)	OD 336 (U.N.)
5.4d :	222 Sydenham Rd, Street-Wilson and Paton (1922)	Author
5.4e :	344/350 Essenwood Rd, Street-Wilson and Paton. (1923)	Author
5.4f :	344/350 Essenwood Rd, Street-Wilson and Paton. (1923)	OD 316 (U.N.)
5.4g :	344/350 Essenwood Rd, Street-Wilson and Paton. (1923)	OD 316 (U.N.)
5.4h :	344/350 Essenwood Rd, Street-Wilson and Paton. (1923)	OD 316 (U.N.)