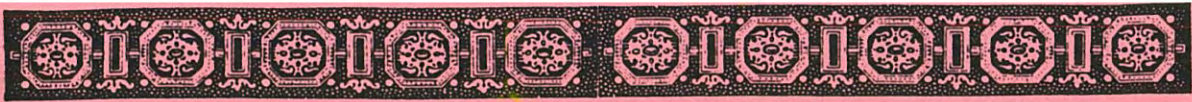
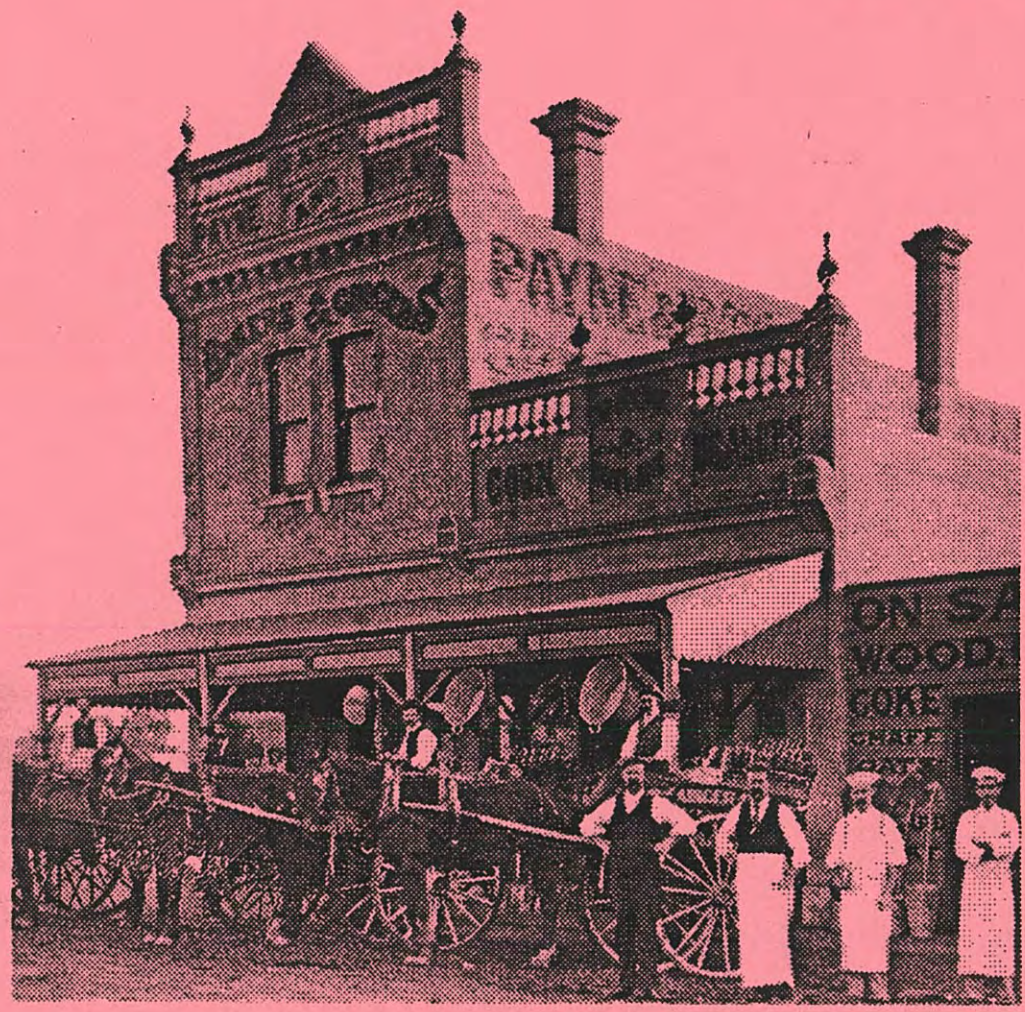


T.P.



HERITAGE AND CONSERVATION STUDY



VOLUME THREE

CITY OF BOX HILL



**CITY OF BOX HILL
HERITAGE GUIDELINES**

1. - An introduction to the Guidelines

1. The Nature of Box Hill's Heritage Guidelines and their applicability

These guidelines apply to the buildings and structures which constitute the architectural heritage of the City. They provide for the sympathetic maintenance of Box Hill's privately and publicly owned historic buildings, many of which have been identified in the "City of Box Hill Heritage and Conservation Study" Volumes 1 and 2 (1989-1990). They also provide for the enhancement of designated historic areas, identified in this Study. A schedule of the buildings and areas to which the guidelines apply forms a part of these Guidelines.

Their purpose is to help protect and enhance the City's built heritage. They will be used by Council and its officers to assess applications to alter buildings and are intended also for the use of applicants who either own or occupy heritage properties or are located within designated historic areas. Most importantly, the Guidelines provide a framework within which actions to conserve and enhance the heritage of Box Hill can occur.

In this leaflet some important principles which underly the good care of historic buildings are described. They cover the whole field of Conservation and are supported with some advice on undertaking research.

2. Conservation Principles

In 1979 Australia ICOMOS (the International Charter for the Conservation and Restoration of Monuments and Sites) adopted a "Charter for the Conservation of Places of Cultural Significance", commonly known as the Burra Charter. Although this document may have applicability to some of Box Hill's buildings it is not considered that all of its provisions should apply to the City's heritage. Nevertheless, the processes which make up the whole field of Conservation should be understood by the owners and occupants of Box Hill's historic buildings since it is important that they understand where their actions "fit" in the overall picture.

The Burra Charter lists four processes under the heading of Conservation. These are summarised as follows:

- Preservation, which is "limited to the protection, maintenance and where necessary, the stabilisation of the existing (building) fabric but without the distortion of its cultural significance".
- Restoration, which involves the recovery of the significance of a place by returning the fabric of the building to a state that better reveals its cultural significance. Restoration is limited to the reassembling of displaced components or removal of accretions.
- Reconstruction, which is "limited to the reproduction of fabric, the form of which is known from physical and/or documentary evidence", and which should "not constitute the majority of the fabric of the place".
- Adaptation, which involves the alteration of the fabric of a building in accordance with user requirements and must not "substantially detract from its cultural significance".

These processes, which are described in more detail in the Burra Charter, encompass the range of actions which an owner should anticipate when carrying out works to an historic building. It is important that the difference between them is understood because their applicability is dependant upon the relative significance of each component of the fabric of the building.

It is necessary, therefore, to understand why a building is significant before making any decisions to alter it. Again, the Burra Charter defines cultural significance in terms of **aesthetic value, historic value, scientific value and social value** without discounting the possibility of other criteria contributing to significance. Generally, a building having aesthetic value would be likely to be a good example of a particular architectural style. Historic value is often associated with a person or event which, in the context of Box Hill, might include a particular land subdivision or the opening of a tramway or railway line. Scientific value can be taken to mean the research value of a place, or the amount of information which it contains about topics as broad as building construction or manufacturing processes. Social value relates to the role of a building or site in the community. In Box Hill, there are many buildings of aesthetic value and considerably less of noteworthy historic value. St Andrew's Uniting Church in Whitehorse Road has architectural value as the most imposing neo Gothic church in the municipality. It has historic importance as the former West Melbourne Presbyterian church, erected in 1866-67, and it has social importance for its links with the Presbyterian and more recently Uniting Church communities of West Melbourne and Box Hill. The former Standard Brickworks in Federation Street has scientific importance to the extent that it reveals information about nineteenth and early twentieth century brick manufacturing techniques. It also has a social value as an important and early workplace in the municipality.

With a good understanding of the reasons why a building is significant, complemented by an appreciation of the differences between the various conservation processes, a building owner is well placed to assess the capacity of his or her building to sustain alterations that will not only protect but even enhance its significance.

Generally speaking, the processes of preservation, restoration and reconstruction are most appropriate to the significant rooms or facades of a building or its equipment, whereas adaptation may well be appropriate in its less significant areas. The skill in carrying out new works to culturally significant buildings rests on the owner's ability to ensure that they take place in the least significant areas. It is a statement easily made but one which is not necessarily easily applied.

Given that a building has significance in its own right, it can only be made more significant through the processes of preservation, restoration and reconstruction. It cannot be made more significant by adaptation, because cultural significance is concerned with the way things used to be. No amount of adaptation can add to significance because this process is by its very nature, self defeating. Even though a "better looking" verandah can be provided instead of the old one, and a more elaborate colour scheme applied to the ceilings and walls, the effect of these adaptive changes will be to compromise significance because they are less like the way the building used to be and therefore further removed from the factors contributing to its significance.

A good way of making sure ~~that new works~~ do not transform or overpower the significant fabric of a building is to ensure that their appearance is less visually striking than that of the significant portion. The key is to be discrete. Building owners should make sure that the architectural impact of the new work is subordinate to that of the old fabric. This approach opens up the whole field of appreciating how to carry out new works in a manner which is complementary to the original design.

In the first instance, the architectural character of the new work should interpret the architectural forms, ornamentation and materials of the original building. Additions to a Victorian style building should have an affinity not only with the building but the era. The same is true of an Edwardian, Bungalow, English Domestic Revival or other building style. It is important not to mix styles, since the later work will conflict with the earlier work. It is also important to resist making a building of a particular architectural style look like another because this process can never be carried out successfully. Furthermore such action is at odds with the original character of the building.

The interpretation of architectural form and detail can be achieved by any one or more of the following techniques:

- by adopting elements of the scale, proportion and form of the original building in the new work. These could include window sizes, or window: wall relationships, or roof shapes. It may be possible to introduce a new element which is consistent with the style of the building although not actually present in it.
- by adopting the same materials as the original building.
- by adopting the same colour scheme as the original building.
- by copying decorative elements either of the original building or of the stylistic group to which it belongs.

It follows that the author of a design should have some familiarity with the style of the building in question. The use of period details is fine, so long as it is carried out accurately and with restraint. Herein lies much of the enjoyment of working with old buildings, for the replication of period detail is an activity which appeals to many, and rightly so.

In summary, it can be said that new additions should neither slavishly copy the architectural style of the original building nor be unsympathetically contemporary. This principle also applies to new buildings where they are required to harmonise with historic buildings in their immediate vicinity. There is a great deal of middle ground between the two extremes. The companion leaflets in this series of guidelines help explore this middle ground.

3. Steps in the Conservation Process:

3.1 Information Collection

Most building projects start with an idea: an idea about what makes a building culturally significant and an idea about the standards of accommodation sought. The first step is to gather information about the building with a view to improving your understanding of its significance. There are three sources of information:

- documentary,
- physical, and
- word of mouth.

The following sources of documentary evidence may reveal information about a particular building:

- **Photographs** Photographs in the Box Hill, Surrey Hills and Mont Albert shopping centres are not uncommon. Good collections include those of the Box Hill Historical Society and the Town Planning Department at the City Offices, and also the City Library nearby.
- Good photos of old houses in Box Hill, however, are not common, although some photos are also held in these collections. A good source is real estate agents posters for Box Hill, many of which are held in the Box Hill Historical Society Collection as well as the Haughton and Vale collections of the State Library.

A better source is the family album of previous owners, or even neighbours.

Good photos are hard to find, but if information is sought about the details of removed verandahs, garden fences and the like, there is nothing better than an old photo. Owners of early views are invited to submit them for copying and inclusion in the Town Planning Department collection.
- **MMBW litho plans** Early copies of plans, at 1" = 160'0" and 1" = 40'0", are held at the Box Hill City Council and at the La Trobe Library. The coverage of maps held by the City of Box Hill is as shown in the figures. They generally show the outline of every building in the year of preparation of the plan as well as the location of verandahs and outbuildings. Constructional materials are also denoted and on occasions, garden features are shown. These plans are often useful when determining the extent of original verandahs, outbuildings, additions and driveways. They also provide invaluable information about the streets and houses in one's immediate vicinity.
- **Aerial photographs** Aerial views, although taken from an excessively high elevation, can with the aid of a good magnifying glass, shed information about roof and garden layouts. In Box Hill, the oldest aerial survey dates from 1945/46 and a copy is held in the City Council offices. The next survey was made in January, 1951 and others follow at frequent intervals.

- **Rate Books** The Council's rate books are difficult to follow and unlikely to yield information to the amateur. Nevertheless, if consulted in conjunction with the MMBW lithos and title search data, it is quite likely that a sequence of owners and occupants will be obtainable along with a date of construction and tentative dates for major alterations.

The physical evidence of a building is normally the most important and at times most bewildering source of information. Close examination, especially in conjunction with photographs, will reveal information about missing ornamentation and the sequence of construction which might never have been anticipated. The examination of paint scrapes under a magnifying glass will enable the reasonably accurate identification of long since obscured paint colour schemes. The extent of information that can be revealed through the meticulous examination of the fabric of the building should not be underestimated. Missing components of fences and verandahs might even be stored under the house, or have been incorporated in the construction of an outbuilding.

Information passed on by word of mouth is another source. The most useful information will come from past owners although long established neighbours may also have a surprisingly detailed knowledge of the appearance of a building before alterations were undertaken many years ago.

- In most cases, of course, it is a combination of sources of information which yields the most accurate "picture". It will enable you to understand as fully as possible the sequence of changes to the building fabric and to identify its most significant components. This appreciation can then be combined with your functional requirements for the building to enable you to make decisions concerning the desired preservation, restoration and reconstruction actions in conjunction with further decisions for adaptive change.

The most significant components might be the old part of the building or the front facade and verandah or the front rooms, or the whole of the main house. Whatever the case, this process of investigation will not only identify the portion of the building to be kept and enhanced but also the portion which can be altered or demolished without seriously compromising the significance of the whole.

**CITY OF BOX HILL
HERITAGE GUIDELINES**

2. Repairs and Maintenance

1. Introduction

The technical problems associated with the preservation of old buildings are often different to those associated with the care of contemporary structures.

These Guidelines offer advice to owners of old buildings on a range of technical matters and introduce each topic with a definition and summary of useful references for further reading. The guidelines have been prepared with a view to assisting building owners and the City of Box Hill does not accept responsibility for the information contained herein.

2. Rising Damp Associated with the fretting of masonry surfaces and appearance of damp, salt affected walls, rising damp is caused by the movement of ground water by capillary action through the walls until it escapes above ground or floor level where it can be readily discerned by bubbling and flaking paint, and eroding mortar joints.

The following texts offer useful background information:

1. The National Trust of Australia (NSW): Maintaining and restoring masonry walls, 1978, pp. 15-19.
2. Australian Council of National Trusts: Conservation and Restoration of Buildings: Preservation of Masonry Walls, 1982, pp. 26-31.
3. Evans, I., Restoring Old Houses, MacMillan, first pub. 1979, various reprints.
4. Stapleton, I., How to Restore the Old Aussie House, John Fairfac Marketing, 1983, pp. 14-15.
5. Footscray Institute of Technology: "The Complete Story on Rising Damp in Masonry" (n.d.)
6. The Heritage Council of New South Wales: Technical Information Sheet 1 Rising Damp and its Treatment (1982).
7. Archicentre Technical Information Sheet: Treatment of Damp in Walls.

Should a building suffer from the effects of rising damp, it must be remembered that it probably has not always been so effected and that something has changed to bring about the present circumstances. Before spending money on damp course replacement, it is recommended that the conditions surrounding the building be closely examined to determine whether or not the rising damp has been brought about by some comparatively recent change or combination of changes. Typical changes, and consequent recommended actions are described below:

- An increase in the height of the ground surface adjacent to the walls, resulting in the damp course being bridged. This very common change, often associated with landscaping works and the construction of garden paths will usually encourage ground water to travel around the damp course and re-enter the walls above floor level. If the external ground surface is finished against the wall with bricks or concrete, then any ground moisture will be further encouraged to re-enter the walls owing to the impermeability of the pavement.

Occasionally, the sub-floor ground surface will have been altered and cause the same problem. Workmen may have left debris behind which bridges the damp-course on the inside face of the wall.

The re-establishment of correct ground levels, below the damp course, is an essential first step. Check outside and inside the house under the floors and remove any debris. Ensure that the new external ground surface sheds water away from the walls. Ensure that the new ground surface treatment will allow moisture to pass through it, or alternatively leave a 10mm wide gap against the face of the wall.

If these actions do not cure the problem, it is possible that there are other causes contributing to it. If the damp course has broken down and is no longer acting as a barrier to rising damp, it may be necessary to install a system of agricultural drains to carry away ground water and surface water from the base walls, thereby ensuring that the ground around the footings is dry at all times.

- A change in moisture conditions around the building. Rising damp often occurs when the amount of moisture held in the ground around the building increases. This may be caused by a broken storm water drain, a blocked downpipe causing the gutters to over flow, rusted gutters or by over watering the lawn or garden against the walls. Sometimes, the direction of the run off is towards the wall instead of away from it.

It is essential that steps are taken to keep the ground dry through sound maintenance and gardening practices.

- The surface treatment of walls may have changed. The effects of rising damp may be brought about through the application of surface treatments which prohibit the exit of moisture once it is inside the wall and/or which bridge the damp course. Externally, a coat of cement render across the face of the damp course will allow moisture to rise in the wall. An impervious paint or water proofing treatment may cause the brick or stone walls to deteriorate immediately behind the applied film because trapped moisture cannot escape. Alternatively, it could encourage the moisture in the walls to rise higher than might normally be expected in its attempt to leave the walls.

Internally, cement render and hardboard or timber wall linings can have the same effect.

Remedies include the removal of the applied treatments, or the provision of ventilation slots in the hardboard or timber linings to allow the walls to "breathe". The use of a weak cement render mix instead of the contemporary stronger mixes with a high cement content is also recommended. By using a weak mix, the moisture in the walls will be able to escape through the render coat. Recommended mixes are 1 part lime to 3 parts sand or 1 part cement to two parts lime to 9 parts sand, by volume.

- Reduction in level of sub-floor ventilation. Poor sub-floor ventilation results in a high level of dampness throughout the sub-floor areas leading eventually to the formation of dry rot in the timbers and to dampness in masonry walls. In solid brick houses, internal walls are of brick construction, often creating a series of unventilated compartments within the sub floor area. Sometimes, changes to the external ground levels are associated with the blockage of existing sub-floor vents which may in themselves be inadequate.

The provision of adequate sub floor ventilation is necessary not only to reduce the effects of rising damp, if they are present, but to prevent the deterioration of structural timbers which is an inevitable result of poor sub-floor ventilation. The construction of additional vents is the only cure and is a straight forward matter when the ground level is below floor level. Where this is not the case, rising vents can be provided as sketched. Where large sections of the floor area cannot be ventilated through the perimeter walls, ventilation shafts should be provided, usually externally, but if necessary internally, of sufficient height to create a draught, thereby inducing air circulation. Internal ventilation shafts were often a feature of Victorian interiors. Where the pattern of sub-floor walls is such that unventilated compartments are created, small sections of wall should be cut out without jeopardising their structural integrity.

It is recommended that the causes of rising damp be fully investigated before assuming that the damp course has failed. Even then, if it has failed, the application of recommendations such as those which have been described may remedy the problem. If not, the provision of a new damp course is recommended. This is commonly carried out using one of the following methods:

- insertion of a new damp course by removing bricks or cutting a horizontal slot to receive the new damp course material, below floor level.
- chemical injection at or below floor level by drilling holes in the masonry wall and injecting chemical solutions under pressure or allowing them to percolate by gravity.
- Important Do's and Dont's

Never pour a concrete slab to replace a timber floor. This will cause any ground moisture to rise into the surrounding brick walls.

Always leave a small gap between the external wall and a new concrete or brick path to allow space for ground moisture to evaporate.

Never seal an external wall with an impervious applied film, membrane or coat of paint since this will encourage contained moisture to erode the bricks.

Never use high strength mortars in repointing work since these will encourage escaping moisture within the wall to erode the bricks rather than the mortar joints.

Never bridge a damp course.

3. Falling Damp This phrase is generally used to describe the effects of ~~rainwater-entry-into~~ the building. It can sometimes be so extensive that water entering masonry walls at eaves level will penetrate close to floor level and be confused with rising damp. In some cases, falling damp has been known to effect the full height of a wall above the damp course which acts as a barrier to its further passage downward resulting in maximum damage to masonry units, mortar joints and finishes immediately above the damp course. Falling damp also makes itself known in the form of water marks in the ceiling.

The common causes and remedies are as follows:

- **Deteriorating roof linings.** Corrugated iron roofs usually fail by rusting out where the joints overlap. In corrosive climates, the build up of rust can be general. Temporary repairs can be made by patching and with bitumen whilst the rate of deterioration can be reduced by the removal of loose and flaking rust and by the application of a rust converter metal treatment followed by an anti-corrosive primer and finishing coat (if required). Suitable products are available through major paint retailing centres.

It is important, however, to accurately ascertain the condition of a roof in the first place. Tiny holes like stars in a night sky may be signs of rusting and general deterioration, or they may simply be holes caused by nails having been removed or by some other mechanical cause. If they occur on the high part of a corrugation they are unlikely to let water in. If they occur in the "trough" then they should be patched. Replacement of the sheet may have the manufacturers "brand" giving details of the manufacturers name, place of manufacture and product grade. This information is of interest to the extent that it sheds light on the origins of the materials used in a building. It should therefore be retained if feasible. If the replacement of sheets is necessary, the retention of some sheets with brand names is recommended. Be sure that the size of the corrugations match those of currently available sheets and check also to avoid the use of "zincalume" which is incompatible with corrugated galvanised iron. In some instances, early zinc coated roof tiles are considered to be sufficiently rare to warrant patching and re-galvanising, but these are not known to have been used in Box Hill.

Dislodged and cracked slates and tiles are obvious indicators of places where water may be entering a building. Deteriorating cement pointing along ridge lines should also be checked for water entry.

- **Failure of flashings and gutters** Galvanised iron and lead flashings are also sources of water entry either through the natural processes of deterioration or as a result of careless workmanship. Counter flashings may have become dislodged or be missing altogether and should be checked along parapet walls and around chimneys and roof penetrations. Boxed gutters should be cleared regularly of leaves and other debris and the joints checked to ensure that water is not flowing backwards (and "uphill") at the laps. Rusting and blocked gutters should be checked to prevent damage to eaves soffits and walls in the event of flooding.

Design faults taking the form of an inadequate number of downpipes, or undersized gutters and rainwater heads are often associated with falling damp and can be generally detected in the case of rainwater heads by the discolouration of brickwork and mortar joints immediately beneath.

4. Penetrating Damp The most common incidence of penetrating damp occurs when rain beating against a solid brick wall penetrates its full thickness and causes mould to form on the inside wall face and may be also associated with the rupture of the internal wall finish. This condition should not be confused with condensation which also manifests itself internally with mould and is especially common in the wet areas of a house. Where penetrating damp is a problem, however, check first to ensure that the mortar joints between the bricks are sound. If not, have them repointed using a weak cement mix. If the wall is unpainted, use a clear penetrating acrylic sealer which not only allows the wall to breath but also encourages water to run down the wall rather than soak in. If the wall is painted, a high build elastomeric membrane, which also breaths, will have the same effect. Firms specialising in the sale of waterproofing products can advise further.

5. Cracks in masonry walls

Box Hill is characterised by relatively good foundation materials when compared with the volcanic clays of other municipalities. With minor exceptions, the City is founded on mildly expansive clays and is classified "Intermediate" under the provisions of the Victorian Building Regulations.

As a consequence of the comparatively sound foundation materials of Box Hill, one can fairly safely assume that structural movement resulting in cracking masonry is more likely to be caused by poor design or maintenance practices than bad foundation conditions. With old buildings, the option of influencing structural design decisions no longer applies and it is therefore useful to look first at maintenance as the factor commonly producing structural cracking. In this regard it is helpful also to look for comparatively recent changes in the circumstances effecting the structural integrity of a building since they often are the causes of movement. Good references on the subject are as follows:

1. R.A.I.A.: Technical Information Sheet - Cracking in Brickwork and Block Masonry
2. Australian Council of National Trusts: Technical Bulletin 5.1: Damage to Buildings on Clay Soils
3. Archicentre Technical Information Sheet: Cracking in Brickwork and Block Masonry.

When making an assessment, first look for evidence of continuing movement. If the crack is growing wider and wider, then something must be done. If, however, the movement has ceased, then the circumstances causing it may also have ceased to exist. In this event, the crack can be left alone or if it is unsightly or allowing water to enter, then it can be filled with an elastomeric or similar product, applied in accordance with manufacturer's directions.

Continuing movement can usually be detected by the evidence of filling in the past. The best information, however, is obtained by placing "monitors" over a crack and checking for movement at regular intervals. When assessing the possible causes of cracking, the following factors should be checked.

- Seasonal changes in moisture content of soil.

The cycle of wet and dry seasons may be associated with the regular opening up and closure of cracks. At times of climatic extremes, cracking may occur which is never fully taken up by the complementary wet or dry season. In these circumstances, the maintenance of a consistent ground moisture content in the vicinity of the building is important. Sub-floor areas should be well ventilated to avoid the creation of a damp and humid environment. Areas around the building should be protected from sudden changes in moisture content. Check the system of roof drainage to ensure that rain water is being conveyed away from the building and is not allowed to collect at the base of the walls. Ensure that all paved surfaces shed water away from the building. Provide agricultural drains in areas where the water table is likely to be high (e.g. on the higher ground sloping down to the building).

- Other changes in moisture content of soil.

Permanent cracks may appear as a result of permanent changes in the bearing capacity of foundation materials brought about by a lasting change in the natural moisture content of the soil. Check to ensure that steps have not been taken to alter the sub-surface moisture conditions around the building. The provision of an impervious pavement, for example, may prohibit ground water from escaping vertically through the ground surface, causing the moisture content to increase and the bearing capacity of the foundation materials to correspondingly decrease. The installation of a reticulated garden watering system may also add to the moisture content of the soil close to masonry walls and have a similar effect. It is important also to check for leaking water mains, sewers and drains. Failure brought about by these changes is associated with the rotational movement of effected walls, usually outwards, and can be checked by dropping a plumb line down the face of the building.

Where the root systems of trees extracting moisture from the soil during hot periods deplete the "water" content in their vicinity, they will extend further afield in search of soil moisture. The clay soils of Box Hill will respond by shrinking with the extraction of moisture and causing overlying walls to settle. When mature trees with root systems influencing building stability are cut down, it follows that the restoration of typical moisture levels in the soil will result in clay soils swelling and re-establishing their former levels. Whereas the former condition may cause an effected wall to rotate outwards, the latter will cause the soil to heave and hopefully re-establish the former wall alignment.

Where trees are having damaging effects, alternatives to removal include pruning, deep root pruning and the construction of vertical cut off walls to a typical depth of 1.5 metres.

- Mechanical damage

Mature tree roots not only drain moisture from the soil but may also cause mechanical damage through their uplifting action. These roots should be severed or the whole tree removed.

Although the expansion of bricks beyond design limits will result in cracking, this is likely to take place within a few years following construction and although observable in old buildings is not likely to be active.

Structural cracking, however, due to overloading of a bearing wall by a super-imposed structure, is another form of mechanical damage. Similarly, cracking due to the self load of a brick wall may occur when a lintel begins to fail. Often old buildings show the combined effect of all of these causes of movement. When they are well advanced following decades of mismanagement and the natural processes of deterioration, the rate of disintegration increases and can be seen at a glance in the spreading walls and expanding cracks usually wider at the top than the bottom as a consequence of the spreading or rotational action.

Although the corrective measures noted above must be addressed, structural improvements may also have to be carried out, especially when the level of deterioration is at an advanced state. The nature of these improvements is the province of a structural engineer. The sequence of actions, however, should always be to identify and treat the causes of differential moisture content of the foundation materials, where they are present, prior to undertaking remedial structural works. Once it has been established that the only cure is to undertake structural improvements, demolition and reconstruction of a failing wall should normally only be contemplated if the following techniques are considered inappropriate.

1. Tying the structure together with steel rods and compression plates.
2. Erecting steel piers on frames and tying an outward moving wall back to the alignment of the pier or frame.
3. Underpinning the footings with a view to spreading the load on the foundation materials or transferring it to a stronger sub-strate.

Important Do's and Don'ts

Do take the time to fully assess and monitor structural movement before undertaking expensive structural improvements.

Do not underpin without obtaining responsible advice since inappropriate work may result in further cracking.

Do not install sprinklers close to load bearing walls.

Do not allow large trees to endanger the structural integrity of a masonry wall.

Do take all necessary steps to maintain a stable moisture content in the foundation materials underneath and surrounding the building.

Paint Removal

- Although timber surfaces were mostly painted from the outset, this was not the case for face brick and stuccoed walls which were generally intended to remain unpainted. Over the years, and at times from an early date, the dull grey cement rendered walls of Box Hill's Italianate villas were painted, often with a view to brightening them up and also with a view to keeping the weather out. Occasionally, a house remains in its unpainted state and is of special heritage value for this reason. The practice of painting over brick walls is generally a more recent one, post dating the Edwardian period and often involving the overpainting of tuckpointed bricks which were intended especially to be seen on account of their meticulous appearance. Although tuckpointing was a characteristic of late Victorian and Edwardian villas, it was also used on Californian Bungalows and other contemporary villas. In many cases, the character of a building was formed to a large extent by the combination of brick colours, cement rendered surfaces, mortar treatments, rough cast and tiles. Overpainting involved a character transformation which although considered desirable at the time is now often regretted by present building owners.

Paint removal, also termed de-painting, should be undertaken using techniques which do not damage the underlying brick or rendered surfaces. In some instances, tuckpointing and cast cement ornamentation are particularly susceptible to damage and call for great care when removing superimposed layers of paint. It is therefore important to use the chemical steam cleaning process instead of sand blasting, no matter how lightly applied the granules of sand may be. Whereas steam cleaning (paint stripping) involves the use of chemicals which actually cause the paint coats to run off the wall in a fluid state, sand blasting, by virtue of its abrasive action, always removes not only the paint but the formerly exposed face of the underlying bricks or cement as well. The resultant damage is not only unsightly but permanent and should not be contemplated. It is recommended that depainting be undertaken by persons experienced in the work and only after the effectiveness of the process has been demonstrated on a trial section of your building.

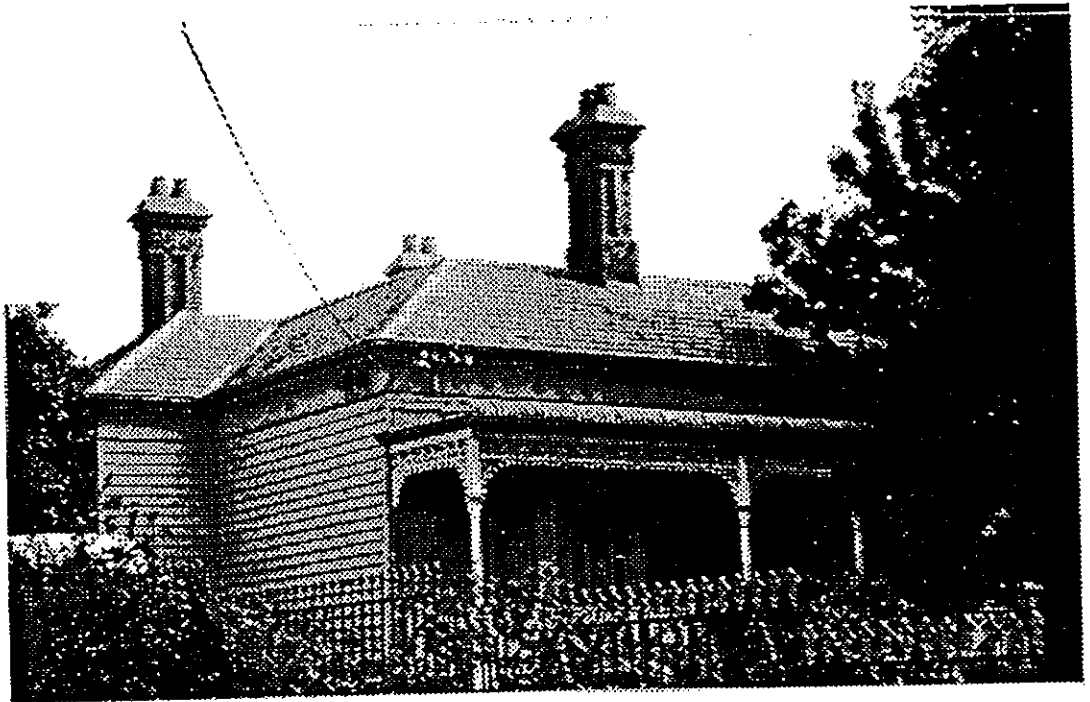
Two other factors bear on the decision to repaint. In the first place the removal of the paint coats may point to another reason for applying a coat of paint in the first place. The wall may have been badly damp affected or it may have been altered by the bricking up of windows and alteration of doorways. The visual impact of these changes, if any, should be evaluated prior to making a decision in favour of repainting. Finally, the process of repainting carries with it the conversion of paint to fluid form and its discharge over objects in its path at the base of the wall being treated. Any painted woodwork, roofing iron, decorative tiles and verandah floors in its path stand to be effected by the paint stripping chemicals and it is therefore recommended that paint removal be undertaken prior to the provision of any new materials and finishes.

1. Important Do's and Dont's

Never sandblast to remove paint coats on brick or timber surfaces.

**CITY OF BOX HILL
HERITAGE GUIDELINES**

3. Victorian Villas



1. Introduction

These Guidelines and others in the series describe the salient characteristics of various architectural styles encountered in the City of Box Hill. They will help readers to identify the style of individual buildings and serve also as a source of inspiration when making alterations and erecting new buildings in sympathy with their character. All of the nineteenth century styles likely to be encountered in Box Hill are described in this leaflet.

Queen Victoria came to the throne in 1838 and she died in 1901. Given the closer settlement of Box Hill commencing in the 1850's, its architectural heritage spans most of her reign although the number of buildings surviving from the early Victorian decades are few indeed. These are humble settlers' farmhouses adopting colonial vernacular forms with hipped and gabled corrugated iron clad roofs, timber clad walls and simple posted verandahs. The only exception is the Georgian chapel in Woodhouse Grove which is rare, both in terms of age and its self conscious choice of style. Box Hill's growth as a suburban centre, however, had to wait until the late Victorian years following the opening of the railway in 1882. During these decades (1880's 1890's) Box Hill's building designers showed susceptibility to prevailing architectural fashions which came under the general classification of the late Victorian Boom style and embrace richly detailed Italianate buildings, neo Gothic churches (but not houses), Queen Anne and French Second Empire designs. To these should be added the common and relatively straightforward single and double fronted Classical Revival villas and relatively unenriched Classical Revival shops of the Box Hill and Surrey Hills centres.

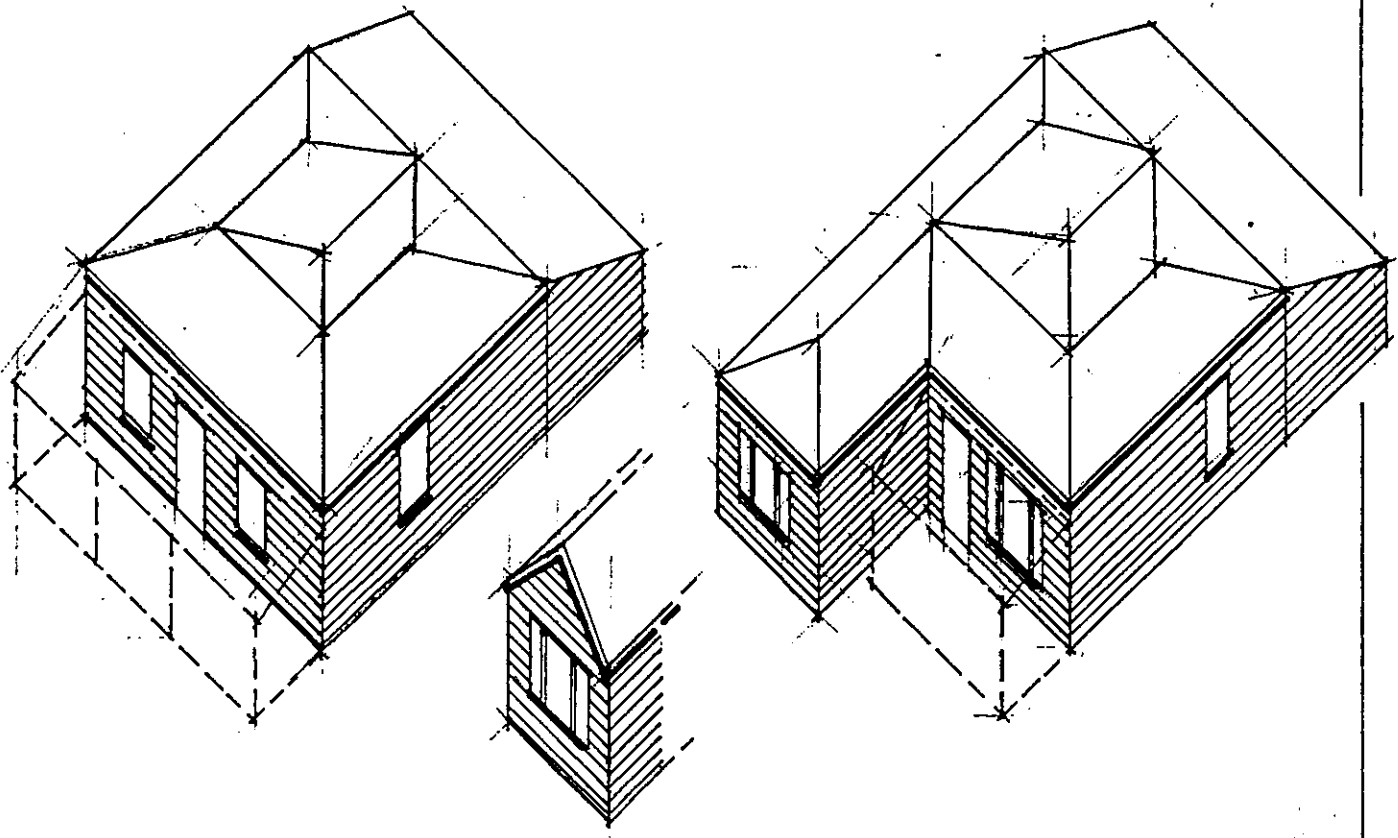
2. Classical Revival Villas

- Typical Forms

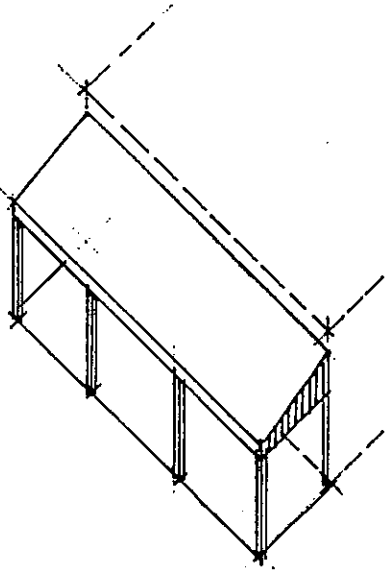
These shapes encompass the majority of house types found in Box Hill and are most commonly associated with stereotypical and comparatively simple ornamentation.

- Verandahs

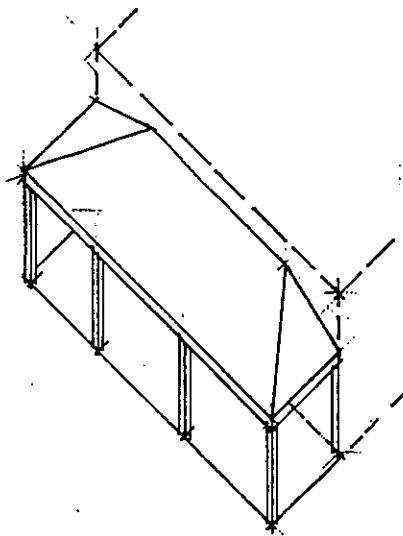
Verandah shapes and details representative of those found in Box Hill are mostly straight, with or without hips, and concave. They were most commonly applied to the front of buildings but also quite frequently extend around one or two sides.



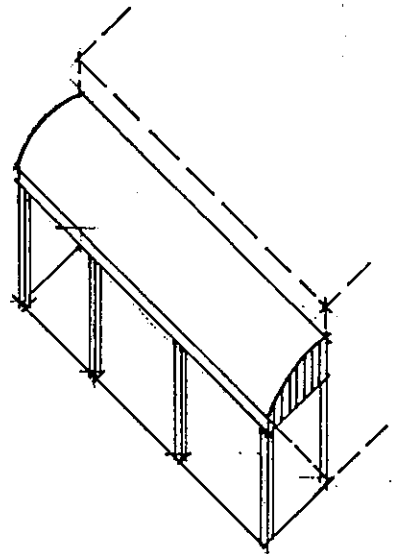
basic classical revival villa forms



STRAIGHT



HIPPED

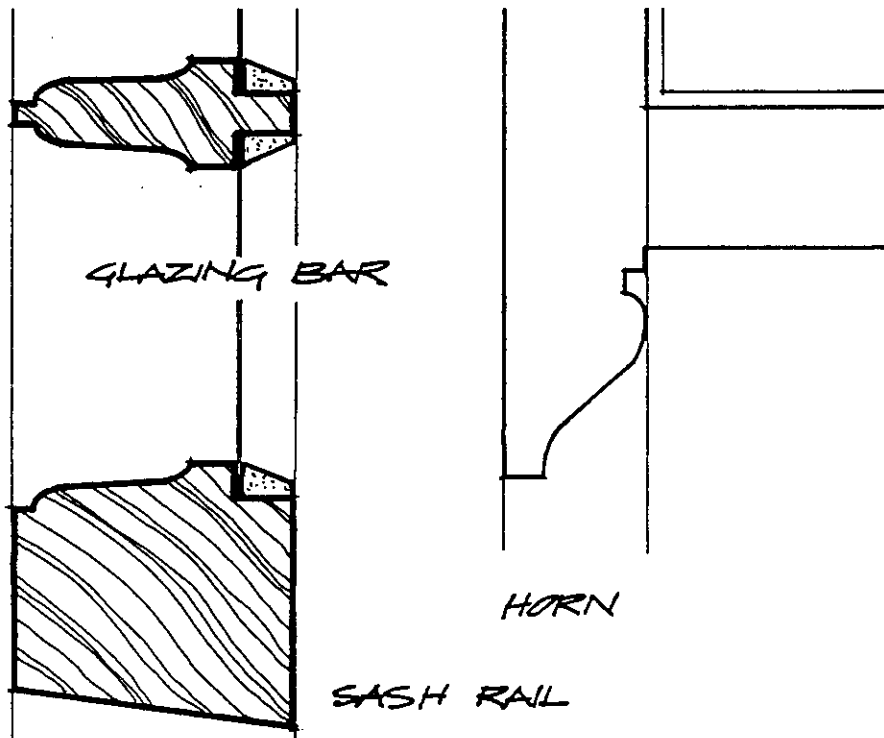


CONVEX

basic classical revival verandah forms

- Windows

Windows were typically double hung with each sash having either one pane, or two formed by a central vertical glazing bar. Less commonly, each sash would have six small panes but these were generally relegated to the less important side and rear elevations. Similarly, most sashes had horns, only the very early examples being without them. Typical profiles and details are shown:



Where a view or additional light were sought, a large central double hung window was often flanked by narrow double hung windows. Sometimes the narrow windows were glazed with acid etched and coloured glass. Tall windows opening onto terraces or verandahs were also double hung and sufficiently lofty to allow an adult, by stooping slightly, to walk over a low sill onto the verandah.

Windows were also grouped into pairs, the heads being typically flat and segmentally arched. Round arched windows, also common in Box Hill, were more expensive.

- Chimneys

Chimneys characteristic of this villa type were of cement rendered or fair-faced brickwork with a brick cornice, often made to look more elegant with rendered mouldings. Although conspicuous, they were not as tall as Queen Anne chimneys and were often symmetrically located on the main (front) elevation.

- Roofs

The hipped and gabled roofs of Box Hill's Victorian villas were commonly finished with slates, shaped and variegated, and with corrugated iron. The slates, originally imported from England include grey/blues, purple and sea green, the latter being used to relieve the uniformity of the slates in general use. Among the patterned slates encountered in Box Hill are those illustrated, but the range was much greater, and included scalloped and fishscale and diamond patterns with toothed edges. Although the variegated slates were commonly located in rows of four or five tiles, they were arranged in patterns as well. Quite often, the patterned slates were of the same colour as the balance of the roof slates.

Roof eaves were boxed and the ridge and hip beams raised to facilitate the provision of a roll over flashing, traditionally in lead but later in galvanised iron.

- Chimneys

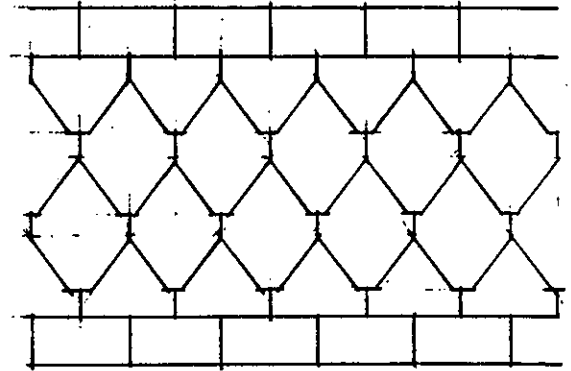
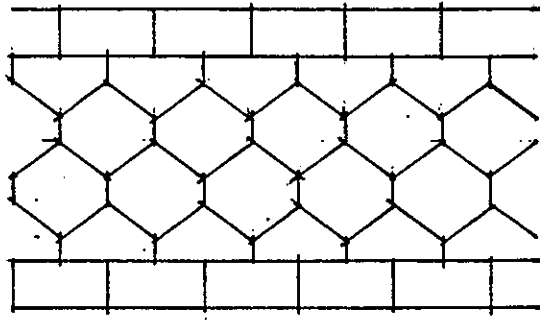
Chimneys characteristic of this villa type were of cement rendered or fair-faced brickwork with a brick cornice, often made to look more elegant with rendered mouldings. Although conspicuous, they were not as tall as Queen Anne chimneys and were often symmetrically located on the main (front) elevation.

In Victorian villa construction the external face of the chimney back was built flush with the external wall unless it was situated in the service areas where it might often step out beyond the face of the wall.

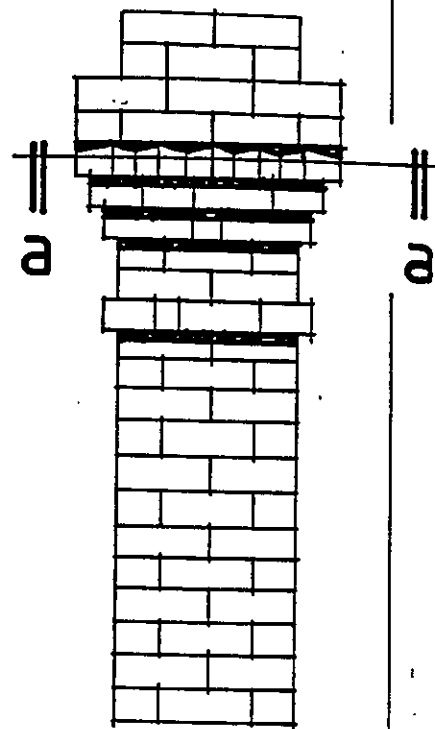
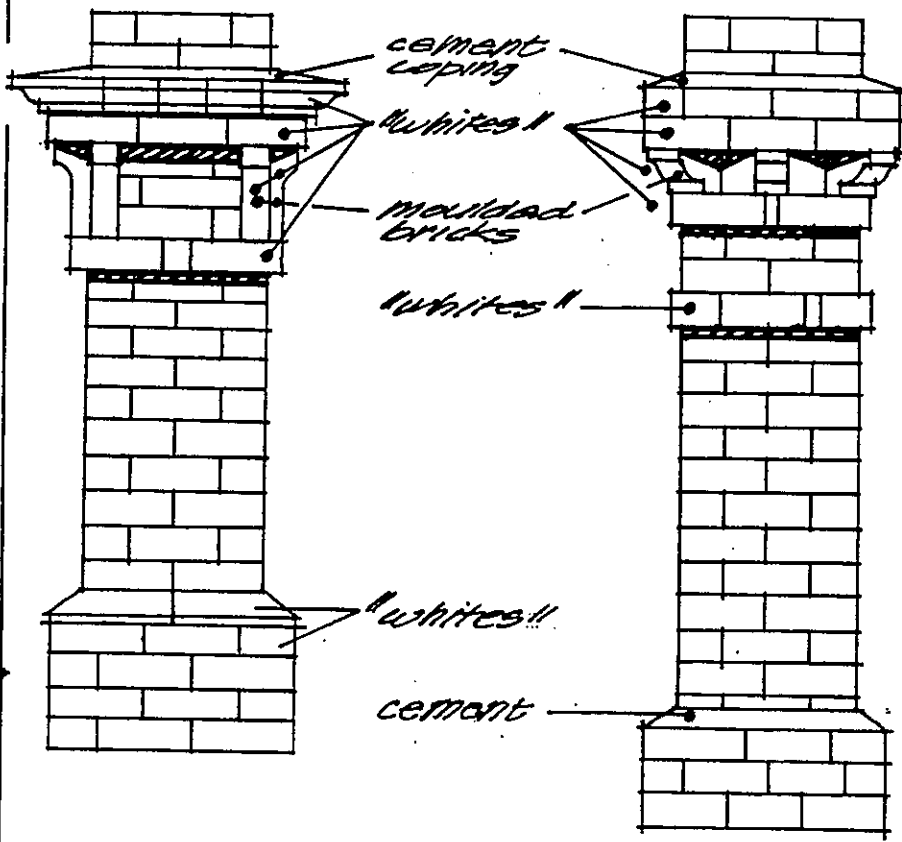
Chimney pots were usually of cream or red terra cotta. They were occasionally fitted with sheet metal cowls whilst service area chimneys often had extended metal cowls replacing the more decorative terra cotta pots.

- Surface treatments

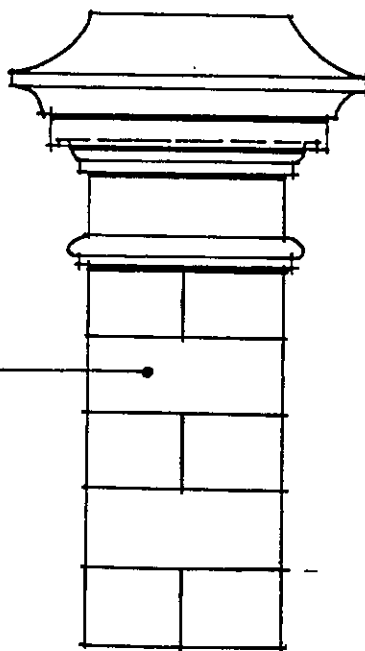
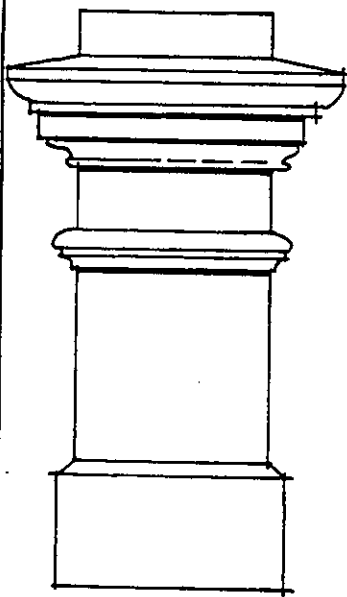
Masonry walls were monochromatic red or dark brown ("Black Hawthorns"), the use of polychrome brickwork being especially associated with the Boom period when red body bricks were relieved with "whites" (actually cream) and "blacks" (actually dark brown). Alternatively blacks were relieved with whites and/or reds. The best brick work was restricted to the front wall; the sides and rear, especially when concealed from general view, being of the plainest variety. Black and white tuckpointing was common over mortar specially coloured to match the bricks and the base courses were a little "proud" of the main wall surface, as follows:



patterned slates



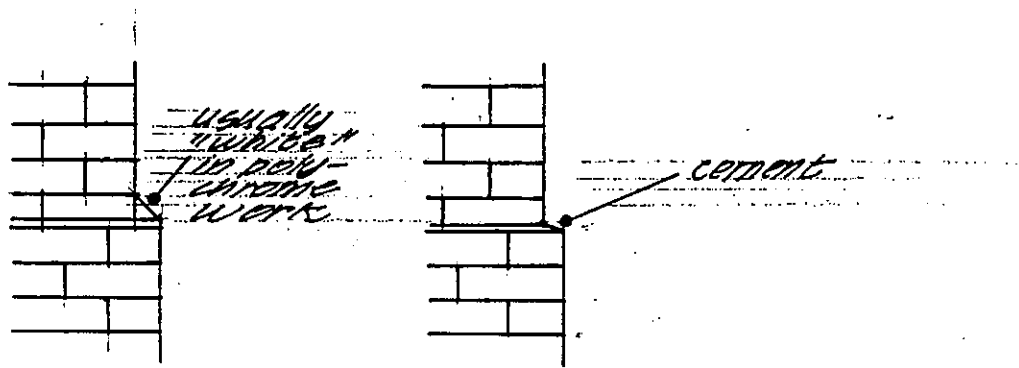
SECTION AT a-a



classical

revival

chimney stacks



Stuccoed walls were usually restricted to the public elevations and were always block jointed. Openings were enriched with architraves and the wooden eaves brackets were defined by a cast cement mould.

Timber wall surfaces were often enriched on the front elevations with ashlar boarding and specially enriched quoins to simulate high quality stonework. In these instances the common square edged weatherboard was relegated to the side and rear walls. The Victorians never used bull-nosed weatherboards.

- Joinery

The application of timber decoration was a major contributor to architectural character and consisted of the following elements:

Verandahs :

Stop-chamfered posts, not turned, with capitals and sometimes with skirtings. Stop chamfered verandah beams had scotia or ovolo gutter moulds. Verandah floors were of oiled hardwood with bull nosed edges, vertical quirk beaded plinth linings and moulds as above. Baulstrades had decorative cast iron panels and the post beam connections were enriched with cast iron brackets.

Eaves :

Eaves were boxed with quirk beaded soffit linings and enriched with turned timber brackets and sometimes vents formed by holes drilled through the soffit linings. The eaves overhang was usually about 250mm.

Fascias were quirk beaded and the gutter ends were concealed by the barge ends.

Skirtings, Architraves and Linings

Common profiles are illustrated.

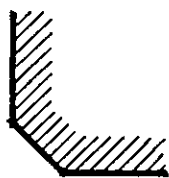
Linings were almost always quirk beaded, with a bull nosed mould forming the dado line.

Front Doors

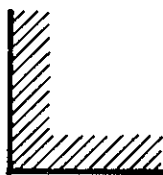
These were two, four and six panelled, with horizontal rails and vertical styles. Externally, bolection moulds enriched each panel, whilst internally the corresponding moulds were described as sunk. The panels themselves were plain or fielded (with raised pyramidal forms). The door surrounds typically featured stained glass sidelights surmounting fielded panels with bolection moulds and bottom hung sashes above the door. The doors and surrounds were usually painted with a glossy varnish finish but they were also wood grained.

Plasterwork

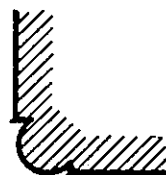
As with joinery, the extent to which plaster was run and cast in moulds to form rich patterns was a characteristic of these villas. The following construction details should be noted. The external corners of chimney breasts were either chamfered, squared off or finished with staff beads:



CHAMFERED



SQUARED-OFF



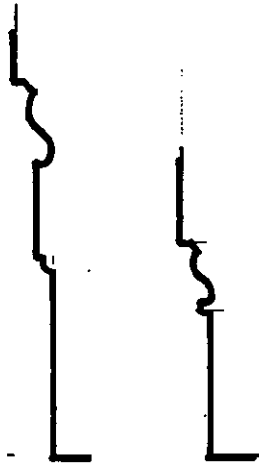
STAFF BEAD

Cornices were often non-existent especially in the secondary rooms and service areas. In the front rooms bold cavetto cornices were the norm.

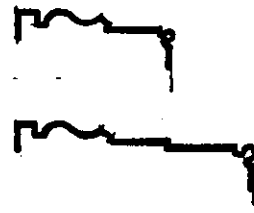
Typical Colours:

Recommended reading includes:

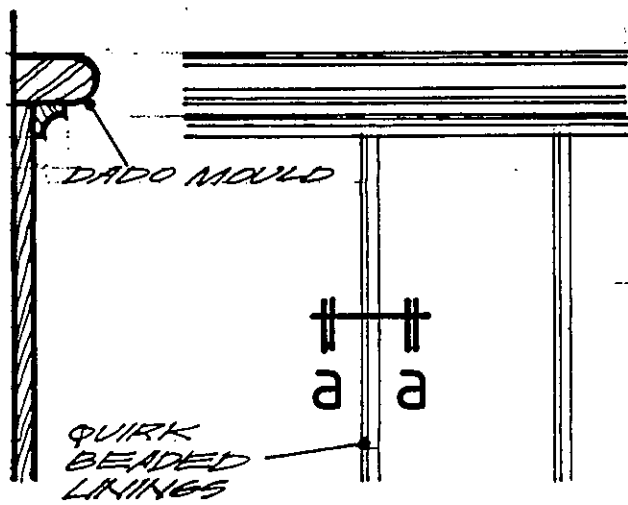
1. Forge, S., Victorian Splendour - Australian Interior Decoration 1837-1901, O.U.P., 1981.
2. Evans, I., Restoring Old Houses, Macmillan, 1979 and later editions.



skirtings



architraves



linings



SECTION AT a-a

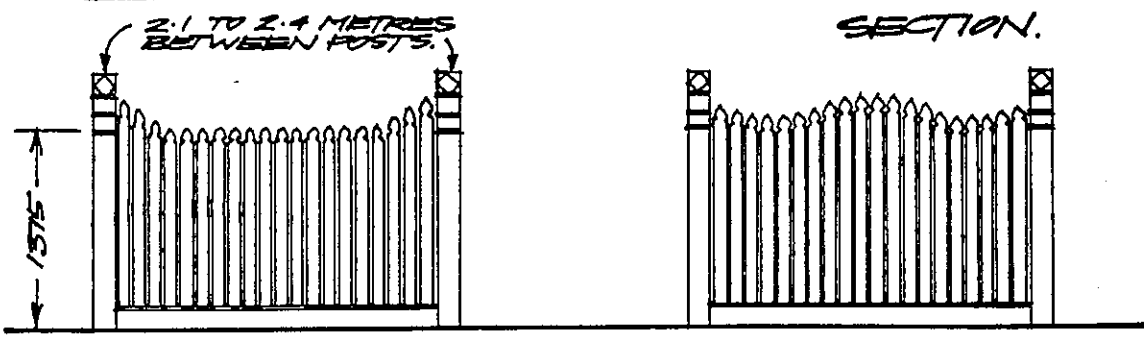
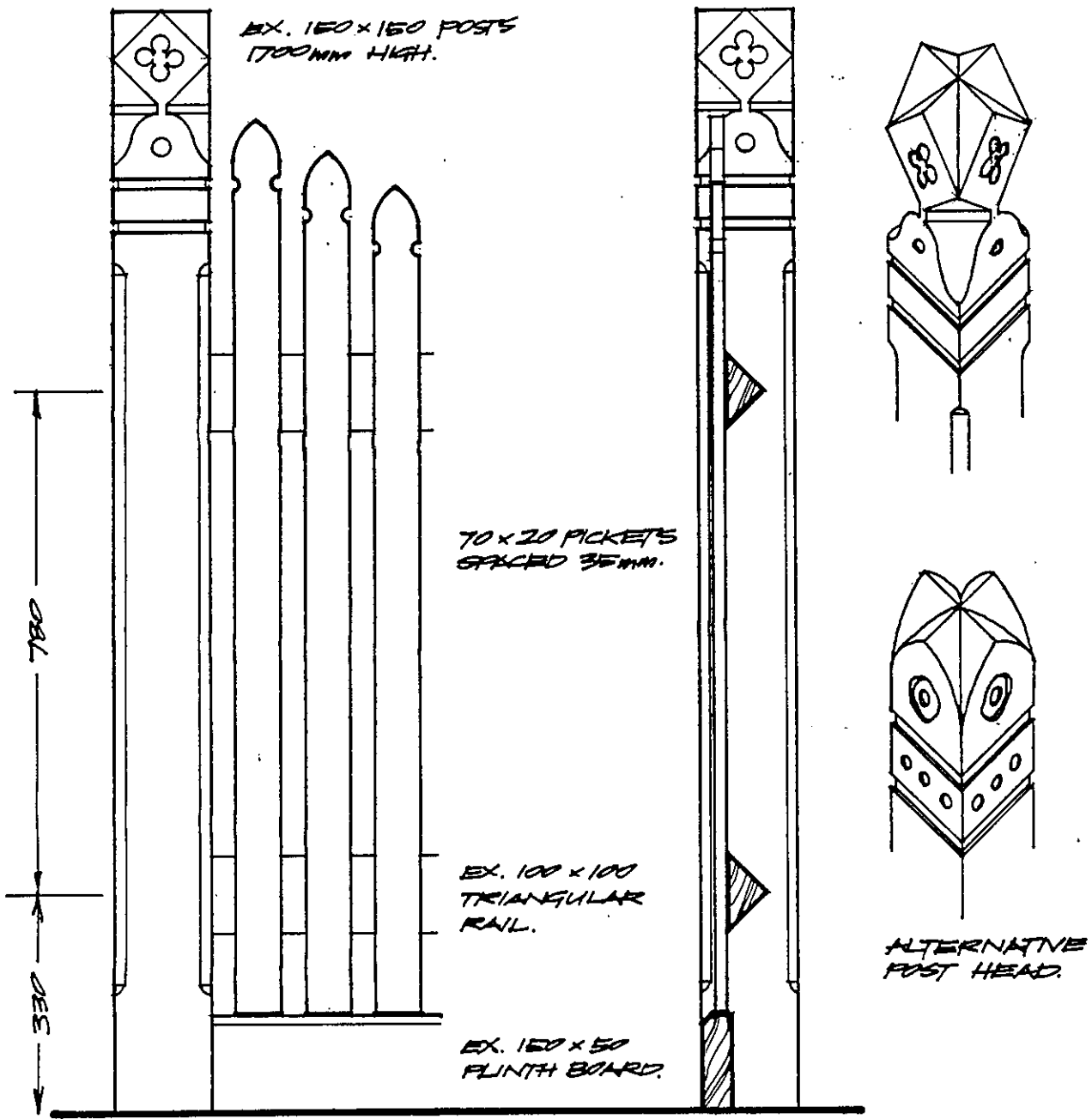
The Victorian's had an enviable appreciation of colour showing a degree of creativity and complexity in designs and techniques no longer characteristic of the building industry. These skills appear especially fine when it is borne in mind that painters mixed their colours for each job without the aid of colour charts. Nevertheless, in spite of the richness of colour schemes, most characteristic of the Italianate and other Boom Styles, one should be cautioned against "gilding the lily". External colour schemes were more typically sombre, using browns and creams with monotonous regularity. Inside, cream, browns, greys and drab greens were perhaps the most common colours, whilst heightened interest could be obtained with wood graining, stencilling and wall papers. Again, however, these beguiling techniques should not be overused, especially in smaller villas, it being perhaps preferable to adopt schemes of decoration in keeping with the status of the house.

Fences and Gates

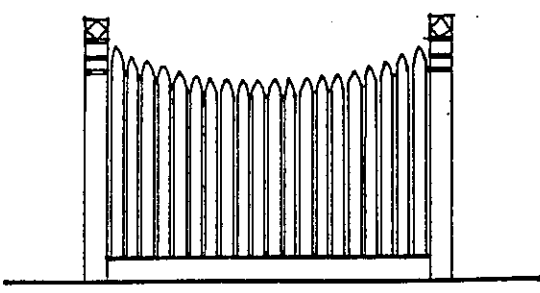
The National Trust's Technical Bulletin 8.1 Fences and Gates compiled by Richard Peterson is recommended reading, giving general information about fences of the period. In Box Hill the number of cast iron palisade fences appears to have been very small and few, if any, survive today. The provision of new fences of this type, therefore, is probably not representative of Victorian Box Hill and should not be pursued. Occasionally, corrugated galvanised iron fences with capping rails and moulds were used and survive as front fences but again their application was unusual rather than general.

The most common form of ornamental front fence was the timber picket fence further enriched with timber gates. Good quality work expressed each vertical timber post as a design element in the fence with horizontal rails checked in. These posts were often elaborately worked with chamfers, rebates, quatrefoil motifs and a variety of terminations. Fence posts were generally 150mm square and the plinth board, always checked into to the post to avoid twisting was invariably 30mm thick and between 130 and 200mm high. Typical vertical dimensions for fence and gate posts were 1.5 to 1.75 metres, the pickets themselves having a line some 1.4 to 1.5 metres above ground level. The pickets were cut to numerous stock patterns, often increasing in height as they approached the fence post or forming a sweeping catenary from one post to the next.

Ledged and braced gates commonly had pickets fixed to them to match the detail of the fence itself. In better quality work, however, the gate was a feature in itself having chamfered rails and styles, vertically or diagonally lined panels and turned timber balusters in the upper portions.



ALTERNATIVE PICKET LAYOUTS.



victorian
fences

- Important Do's and Dont's

Do make sure that new decorative detail is correct for the style of the house. It should be well copied and be stylistically compatible showing that the owner has an understanding of the significance of his or her villa.

Do not use vee jointed linings in Classical Revival villas. Do use quirk beaded linings.

Do not apply a clear finish to pinus radiata linings or sand blast interior brick or timber linings to achieve a picturesque "cottage" effect since this is incompatible with the Victorian era.

Do not paint external walls white.

Try to avoid the temptation of applying a degree of ornamentation and enrichment which is too complex for the style or social status of the house.

Do make sure that panelled doors are traditionally constructed with styles, rails, panels and moulds to both sides of the door. Poor copies are always a disappointing substitute. Front doors should always be painted or wood grained. They should not be stripped or varnished.

Beware of tradesmen claiming to have skills which they do not have. This is especially necessary with the following trades:

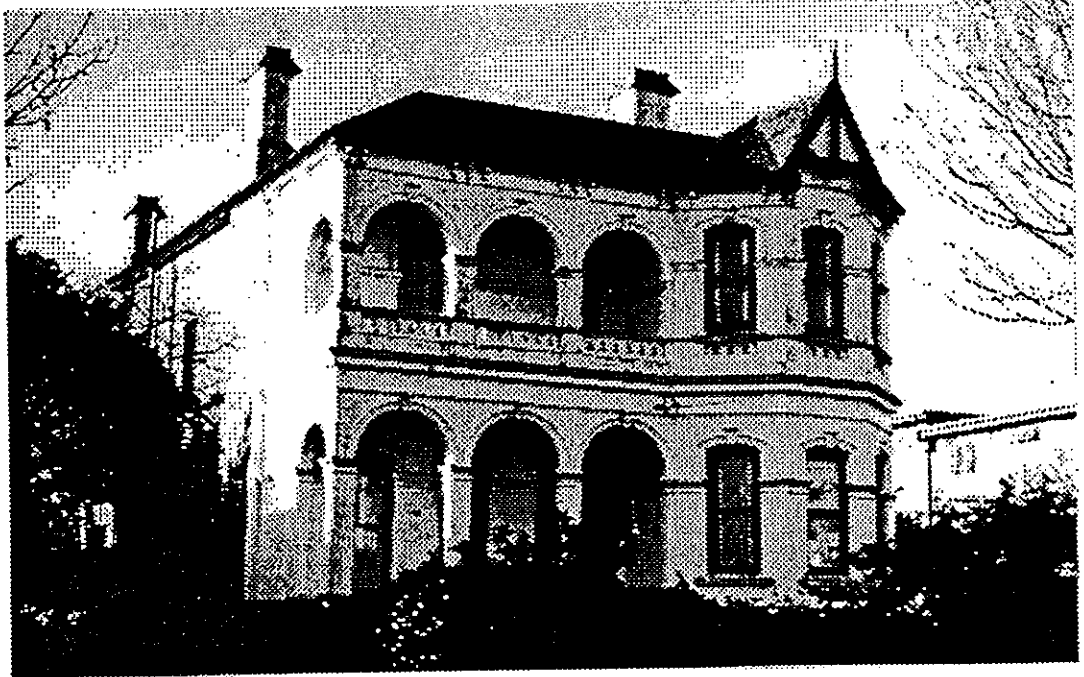
- tuck pointing
- ornamental plasterwork
- stencilling
- wood graining
- marbling

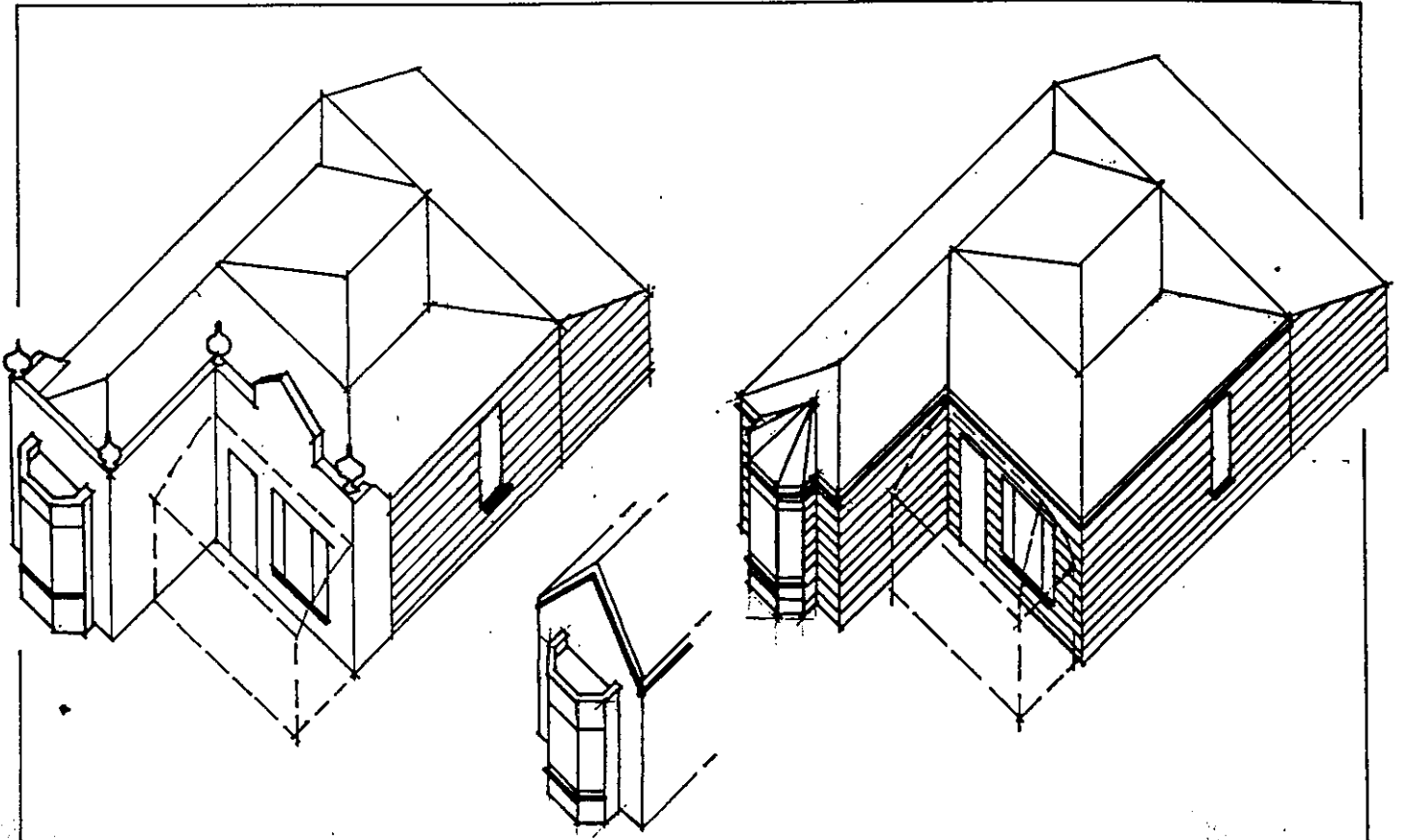
3. Italianate Villas

Italianate villas have their stylistic origins in Renaissance Italy as they were interpreted in England and later again in the Australian colonies. The development of the Italianate villa reached a crescendo during the late Victorian Boom period and is reflected in Box Hill in the richly decorated polychrome and stuccoed villa residences of both impressive and diminutive proportions. Distinguishing features have the richness of their architectural details as a common theme.

- Typical Forms

Architectural form grew out of Classical Revival precedent and became more complex. Distinguishing shapes associated with the Italianate school in Box Hill included the introduction the bay (canted) window, the predominance of the hip and pedimented forms and the introduction of the parapet, associated with the development of the cornice, balustrading and vase like terminations to pilasters.





basic italianate villa forms

- Verandahs

The hipped verandah became the norm often embellished, though rarely in Box Hill, with a pediment to accentuate the point of entry and having a fretted tympanum.

Columns were cast iron, or of similar patented designs and were frequently coupled in pairs.

- Windows

Innovations included the use of bayed windows and the grouping of windows into threes, the popular Serlian motif (after Sebastiano Serlio who published sketch books of ancient buildings during the sixteenth century) having a round central arched window flanked by flat arched windows.

Where windows were grouped the common piers were at times replaced by "barley sugar" colonettes whilst at other times these elegant features simply enriched the window reveals.

The decoration of window surrounds, in conjunction with stuccoed surfaces generally, also distinguished the Italianate style. Simple sills and architraves were enriched with fluting and replaced by "aedicules" having pediments, flanking pilasters and consoles. Pediments were triangular and curved whilst round arches sometimes surmounted flat head openings with ornamental spandrels. The variety of treatment based on Roman ornamentation as popularised by Italian Renaissance scholars was endless and can be seen today in Box Hill.

- Roofs

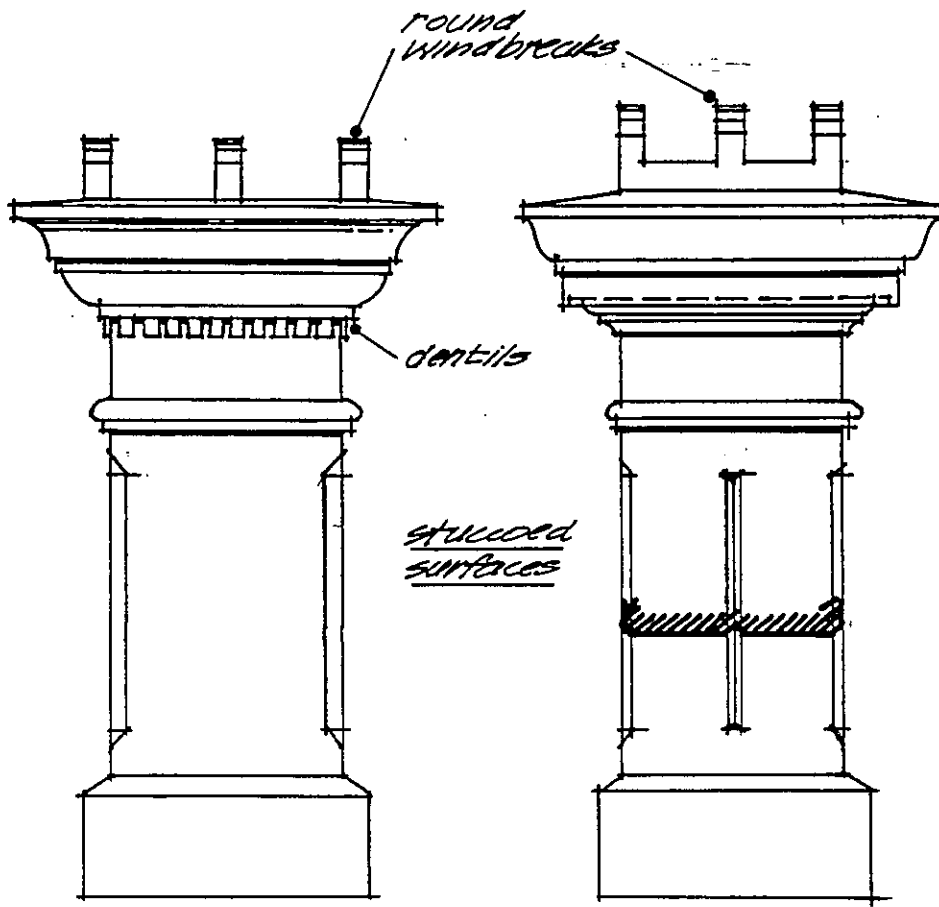
Roof forms remained similar to Classical Revival villas generally although the use of patterned slates became more common and flamboyant.

- Chimneys

Stuccoed chimneys were richly decorated with elaborate cornices, sometimes bracketted and dentillated, semi circular windbreaks instead of chimney pots and enriched panels.

- Surface Treatments.

Stucco and polychrome brickwork were characteristic of the period. Stuccoed surfaces became a pastiche of cast cement ornaments set in cement and pinned to plain walls which were further revealed by horizontal and vertical elements, run with a template in wet cement and serving to divide base walls into small sections.



INTAGLIO

italianate chimney stacks

The Italianate architects drew on the temple form of the ancient Greeks, deploying pilasters (columns, entablatures, architraves, frieze and cornice) and string courses freely to break up the building surfaces. Parapets were devised with elaborate profiles made up of finials, vases, balustrades, curved, triangular and "broken" pediments. Corners were emphasized with quoins, at times "vermiculated" and at times "rusticated". Plain surfaces were lined out in ashlar and at times enriched with incised panels known as "intaglio". The whole effect was distinctly Italianate and distinctly Boom style and stood in marked contrast with the Classical Revival buildings of the preceding decades.

Face brickwork was often used in conjunction with stucco, patterned surfaces becoming a hallmark of the style, the openings and corners being emphasized with contrasting bricks and the cornices having intricate moulded brickwork to form bracketted friezes.

- Joinery

The late Boom style Italianate villa took the work of the preceding decades as a starting point and enriched it further. In Box Hill, verandah beams were often dentillated whilst a tiny timber fringe was occasionally placed above the dentil line and beneath the gutter mould. Fascia boards to eaves were often fretted to emulate a valence and front door panels had curved tops.

- Fences and Gates

These were similar to the fences and gates of Classical Revival villas.

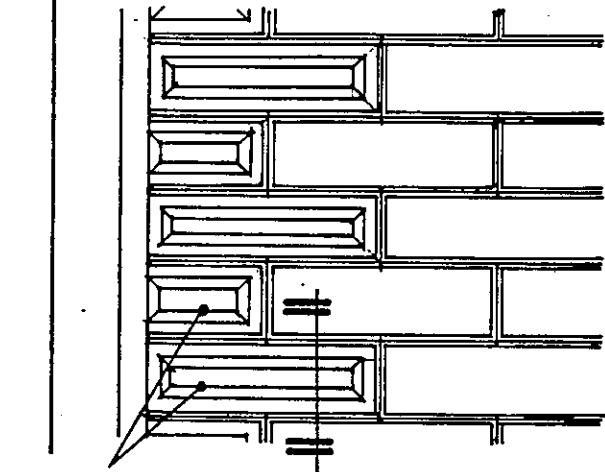
Important Do's and Dont's

When adding onto an Italianate villa, do be sure to accurately copy any details which you have resolved to replicate and make sure you use them in a manner which would not look out of place on an early building.

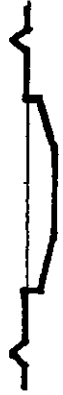
Be aware of the order and proportion of Italianate facades which are just as important as the ornamentation itself.

Try not to "go one better" than the building which is being added on to by keeping the amount of ornamentation to a reasonable minimum.

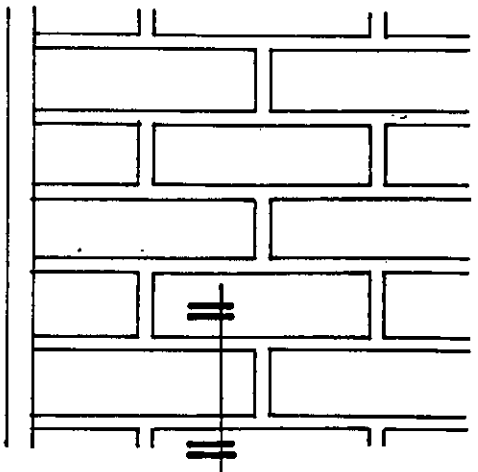
Never paint an unpainted stuccoed wall.



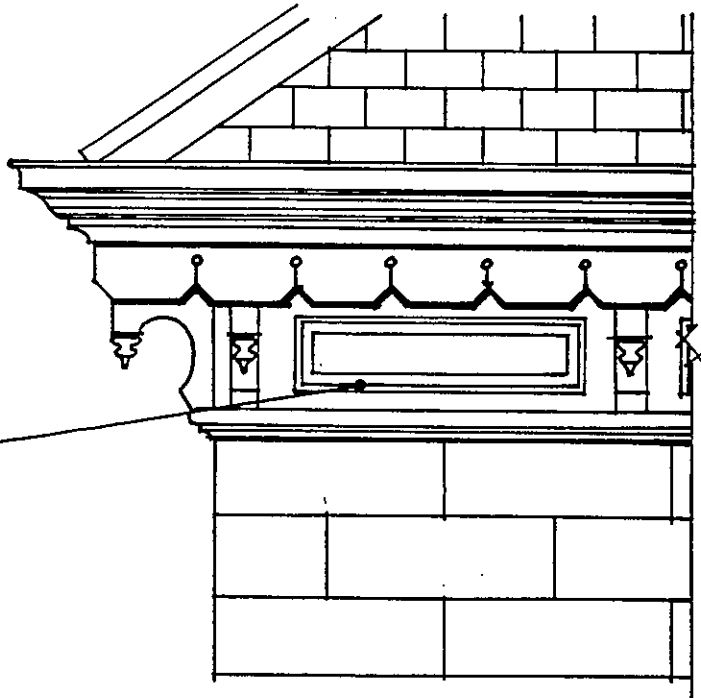
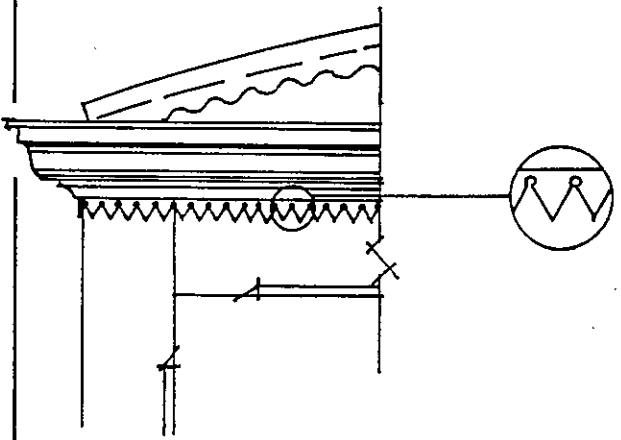
QUOINS



ashlar boarding



width of rebate varies



italianate frieze

- Queen Anne villas

So-called Queen Anne villas evolved stylistically as a reaction to their comparatively sombre Classical Revival and Italianate forebears and represented a particularly English development of domestic architectural style as opposed to the earlier dependence upon Italian forms. The style influenced colonial architects both directly and indirectly via America and became popular during the early 1890's at a time when Box Hill was riding on the "crest" of the Boom.

- Typical Forms

The Queen Anne Style involved a break away from preceding villa forms, although the application of Queen Anne detail to these was common enough. Essentially, though, the Queen Anne style, in hearkening back to English domestic architectural precedents, introduced a picturesque approach to building form. There were initially no stereotypes, common features including steeply pitched gabled roofs, dormer windows, towers, overhanging gable ends and tall chimney stacks. There are few well developed early examples in Box Hill, although the Beatrice Avenue school in Surrey Hills (1890) is one. Later, nineteenth century Queen Anne was to lay the foundations of the distinctively Australian Federation Style which gained universal acceptance after the turn of the century. In Box Hill many late nineteenth century and early twentieth century villas incorporate Queen Anne details.

- Verandahs

The form of the early Queen Anne verandahs was not greatly different from preceding decades. They were, however, very different in their choice of materials and development of detail.

- Windows

Casement windows usually replaced double hung windows, with smaller fixed upper lights finished in leadlight work and replacing the acid etched glass of previous decades. Even the casements were often finished in clear lead light work, whilst projecting circular, canted and square bay windows were very popular. Upper level bay windows were bracketted and window hoods with enriched timber supports became features of the style. Medieval detail was introduced in the frames and reveals and the head of each sash was often curved on the bottom edge.

- Roofs

The finish of Queen Anne roofs was not markedly different in Box Hill from the Classical Revival and Italianate villas. Nevertheless, the use of the gable could be considered mandatory, in conjunction with a hipped roof, the distinguishing architectural character being achieved through the use of decorative woodwork and rough cast cement in the gable ends.

- Chimneys

Queen Anne chimneys were distinguished by their height, being both tall and thin and adding interest to the picturesque skyline of these villas. They were often grouped in twos and threes and were also recognisable in Box Hill by the use of strapwork in cast cement or brickwork.

- Surface Treatments

Masonry walls were always in red brick often with black tuckpointing and represented a departure from the polychrome and monochrome brick walls of preceding decades. Interest was added with fair face and rough cast rendered surfaces and with timber strapwork after the style of English Medieval buildings. At times the illusion of "half timbering" was created by the decoration of barges. Scalloped and square timber and terra cotta shingles were less often used as hung wall tiles and can occasionally be seen in the municipality.

- Joinery

The rejection of classical moulds and profiles was characteristic of the style. New profiles reflected on Medieval forms and can be seen in the following elements:

Verandahs

Although adopting earlier stylistic forms, Queen Anne verandahs were distinguished by their exclusive and innovative use of timber, often recalling English Medieval motifs and reflecting also on new techniques in wood machining. Verandah posts were most commonly turned on a lathe but they were also worked by hand, characteristic details being the tapered chamfer and trefoil/quatrefoil patterns. Cast iron friezes were replaced with turned and sawn "ladder frames" and similar patterned open work. Friezes were of a constant depth or scalloped and the preceding cast iron brackets were replaced with fretted or incised timbers. Balustrade panels were usually an extension of the frieze design and of timber construction.

Barges

The distinguishing features of Queen Anne barges was the level of decoration applied to them. Timber had replaced cast iron as a decorative device and the gable apex was often filled with fretted timber work, the sun burst motif being in common use together with vertical strapwork, king posts and all manner of variations. The barges themselves were enriched with applied mouldings, including ovolos to the cappings and quirks and paterae along the barge faces. The overhanging barges themselves were almost always carried on fretted or turned curved timber brackets, enhancing the Old English look.

Eaves

The boxed eaves of the Italianate architects were replaced with raked eaves and exposed gutter ends carrying the gutter mould and gutter. The sloping soffit was always timber lined in good quality work.

Skirtings and Architraves

Although Classical mouldings were used in Queen Anne villas, they were more often altered to include the distinctive Queen Anne ribbed moulds and at times consisted totally of ribs and medieval inspired profiles. These features first appeared in the 1890's and gained general acceptance following the turn of the century.

Ceilings

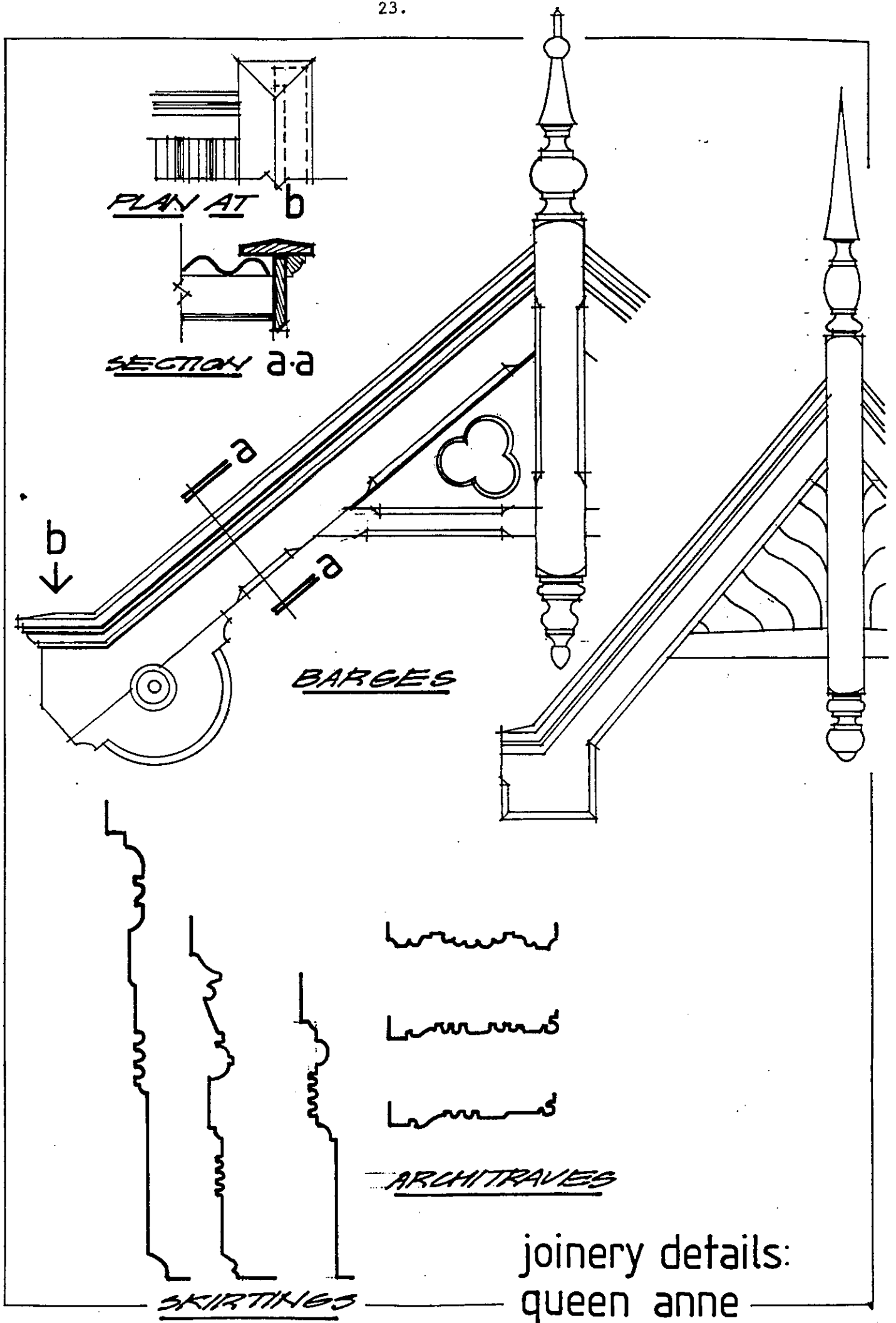
Timber lined ceilings were common throughout the nineteenth century since this material was actually cheaper than lath and plasterwork. Their enrichment, however, with the subdivision of the ceiling area into panels defined by ribs became popular in good quality work in Queen Anne influenced buildings. Each panel was usually diagonally lined in vee jointed linings and was varnished slightly lighter than the ribs.

Doors

Front doors and surrounds often incorporated traditional Classical Revival detail. True Queen Anne doors, however, revelled in the ornamental detail of the day and although classically inspired, incorporated rib moulds, leadlit panels, and pediments with elaborate sill moulds. Moulded panels often had curved corners.

- Plasterwork

Identifiable differences in Queen Anne cornices included the incorporation of ribbed moulds either side of the Cavetto.



PLAN AT b

SECTION a-a

BARGES

ARCHITRAVES

SKIRTINGS

joinery details:
queen anne

- Fences and Gates

These were commonly similar to Classical Revival villas. True Queen Anne detail, however, was often incorporated in the design of fence posts which displayed the popular ribbed moulds.

Important Do's and Dont's

When adding on to a Queen Anne villa, be sure to accurately copy any details you have resolved to replicate and take time to understand the distinguishing features of the style so that they might be reflected in any new work.

Do not overpaint tuckpointed brick surfaces.

5. The French Second Empire Influence

The influence of the French Second Empire Style or French Renaissance is best seen in public buildings in Victoria and was arguably an influence in Arthur Clarke's design for the Nunawading Shire hall of 1889, formerly situated at the corner of Cambridge and Station Streets, Box Hill. Salient characteristics were the mansard roof, forming a truncated shape when applied to a tower, pavilions and an excess of ornamentation which was also a characteristic of Italianate buildings. In Box Hill, the comparatively few instances of Second Empire influence take the form of mansard towers and are important through rare contributors to the City's heritage.

**CITY OF BOX HILL
HERITAGE GUIDELINES**

4. Edwardian Villas



1. Introduction

These Guidelines and others in the series describe the salient characteristics of various architectural styles encountered in the City of Box Hill. They will help readers to identify the style of individual buildings and serve also as a source of inspiration when making alterations and erecting new buildings in sympathy with their character.

The Edwardian era commenced with the enthronement of King Edward VII in 1901 and concluded with his death in 1910. In Australia, the Queen Anne style developed into a distinctively Australian form, usually termed Federation style, during these years and remained popular until the First World War. Houses built during this period are termed Edwardian villas in these Guidelines.

2. Typical Forms and Elements

The typical Edwardian villa had a steeply pitched pyramidal roof, often enhanced by dormers and always relieved by one or more gable roofed extensions which usually acted as terminations to the verandah. The verandah roof was commonly formed as an extension of the main roof, sweeping down to head height and carried on timber posts. A characteristic was the development of the diagonal axis, commencing at the top of the pyramidal roof and running down the line of the hip to the verandah corner. It was strengthened by judiciously placed gables, corner bays and even turrets with distinctive conical ("candle snuffer") roofs. Features were often placed symmetrically about the diagonal axis.

- Verandahs

The verandah was an integral part of the roof design and was sometimes emphasised with protruding porches and turrets. Constructional details were similar to the Queen Anne style.

- Windows

These were also similar to the Queen Anne although it was during the Edwardian era that the impact of the Art Nouveau movement was experienced in the design of leadlight work. A further innovation was the porthole window, usually situated near the front door and under the verandah. It was emphasised by radiating courses of bricks and decorated with leadlight, often depicting Australian topics, the kookaburra being a favourite subject.

- Roofs

Roofs characteristic of the Edwardian period represented a development of the Queen Anne with steeply pitched pyramidal forms often extended in a continuous plane to become the encircling verandah roof. The main roof was enriched with gables, dormers, towers and ridge cresting, the entire composition being further complemented by tall top heavy chimney stacks. The floor plan, when taken up to form the roof, was further expressed in the third dimension by placing emphasis on the diagonal axis, usually with a gablet or conical turret. Roofing materials were initially slate with terra cotta ridging tiles and finials; but eventually the slate gave way to Marseilles pattern glazed terra cotta tiles, imported initially but later locally manufactured. The colours were rich red and although grotesque dragons and griffins were featured as ridge finials, most Box Hill residents settled for foliated or ball finials in terra cotta.

- Chimneys

In Box Hill Edwardian and Queen Anne chimneys were, with isolated exceptions, very similar.

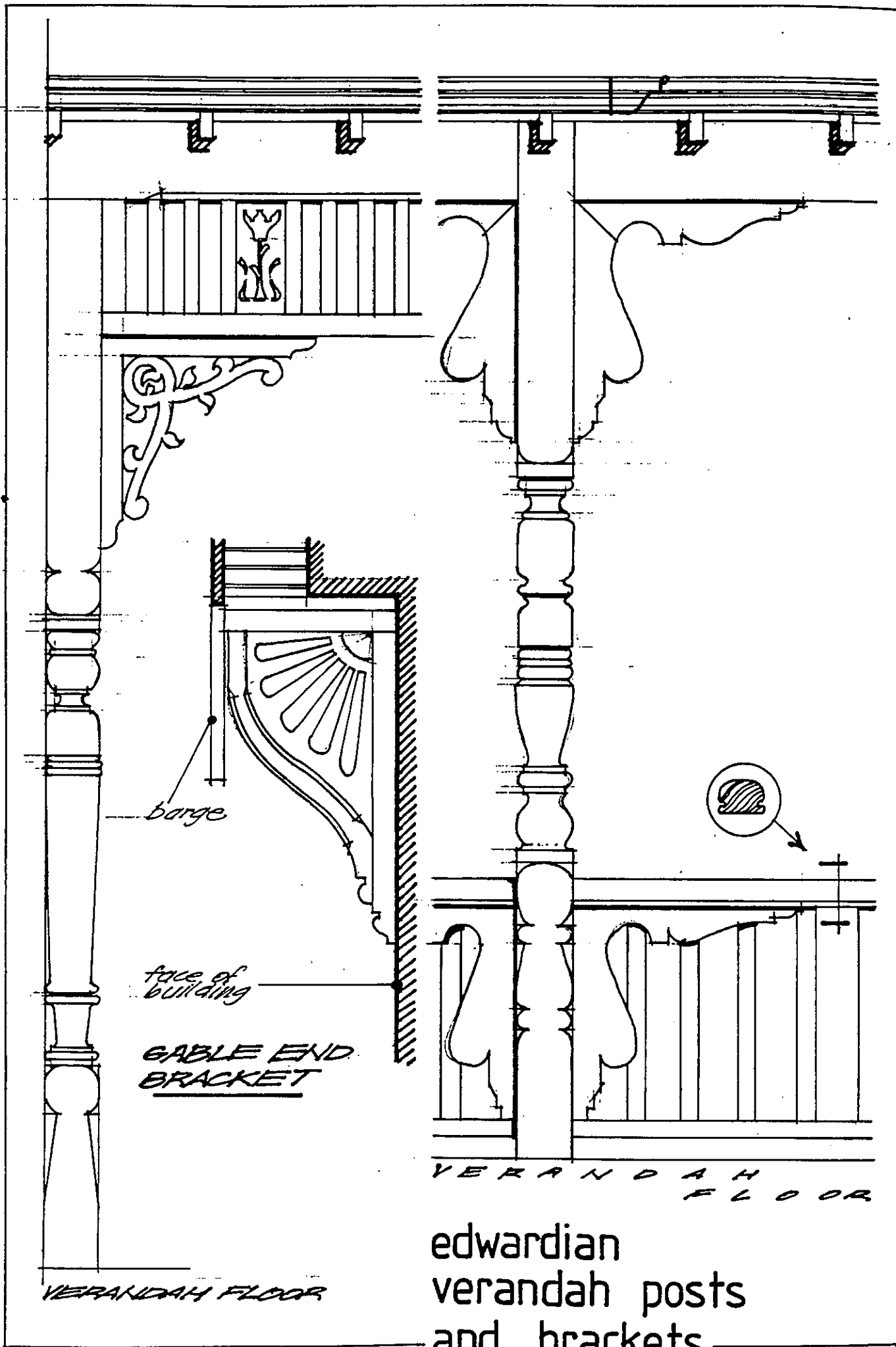
- Surface Treatments

Associated with the growth in population of the detached house following the Post Depression development of suburban Melbourne, the Federation villa experienced a level of popularity which could only be met by the large scale construction of houses in timber with weatherboard linings. These were always square edged and occasionally "shingled" in bands of three or more boards. Very occasionally they were scalloped to resemble fish scales. More common was the use of rusticated boards to heighten the picturesque effect. At times, weatherboards were reduced to an encircling dado and the wall space above finished with laths and rough cast. Brickwork remained similar to the Queen Anne period, whilst the use of strapwork became almost mandatory.

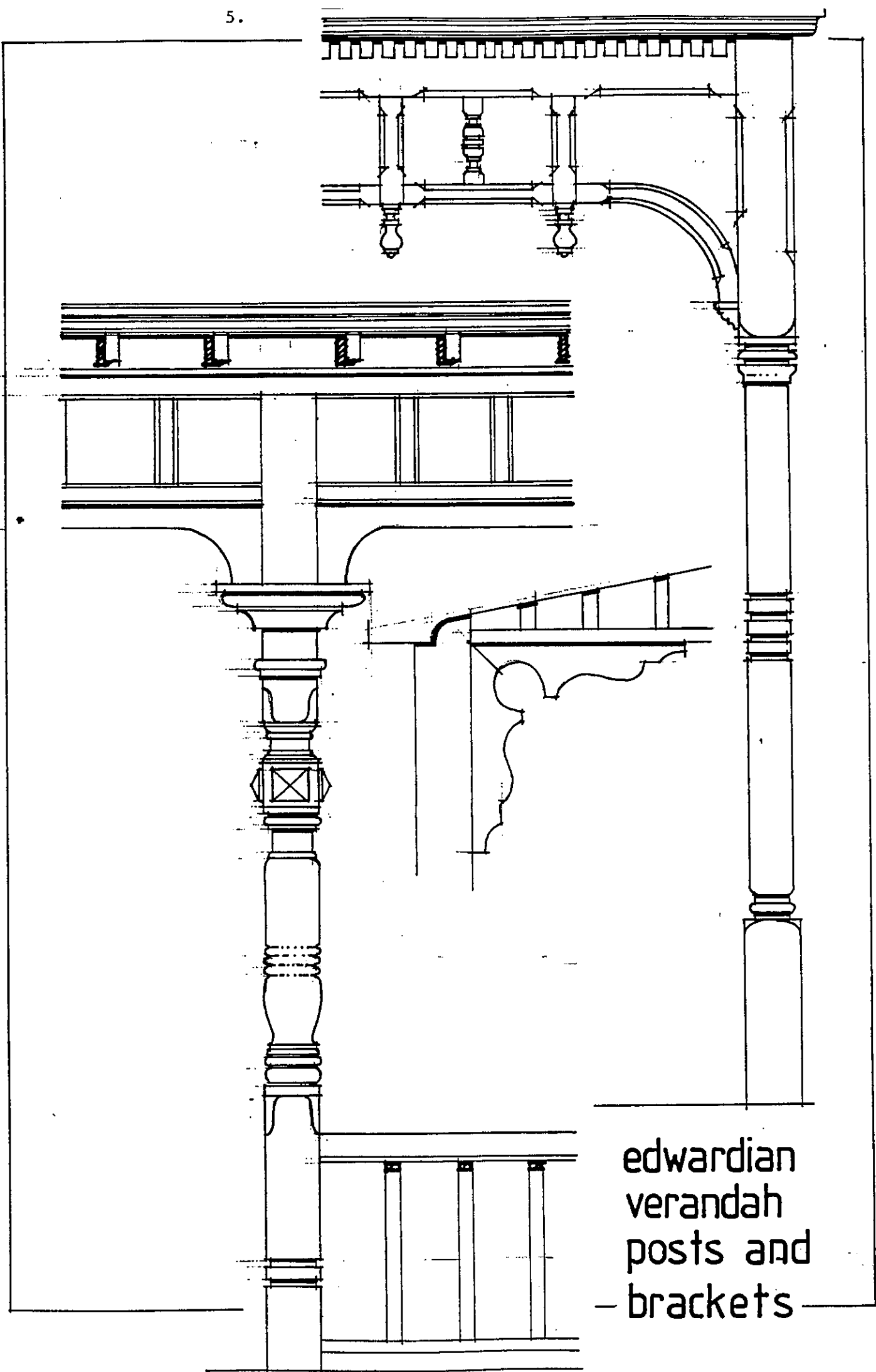
An innovation of the late nineteenth century which gained widespread acceptance during the Edwardian years was the use of stamped zinc ceiling and wall linings. It is thought that they would be rare in Box Hill prior to the turn of the century. Patterns suitable for external use included fish scale and brick panels and also roughcast, nailed to studs with galvanised clouts.

- Joinery

The Federation Style retained the innovations of the Queen Anne period and enriched them by incorporating Art Nouveaux motifs.

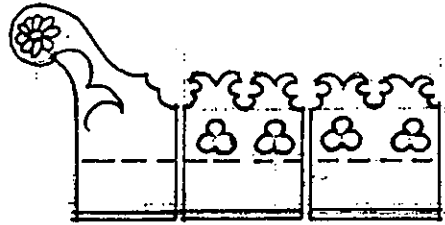


edwardian
verandah posts
and brackets



edwardian
verandah
posts and
brackets

SECTION
AT a-a

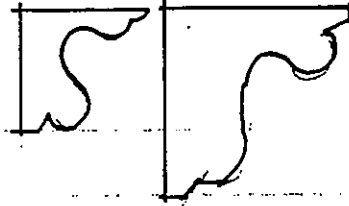


RIDGE CRESTING

USED WITH SLATES
(OR TERRAZZO TILES)

FISH SCALE SHINGLES

BRACKETS
AT a AT b



ROUGH CAST

LEADLIGHT TO
FIXED SASHES

DOUBLE HUNG
(OR CASEMENT)
WINDOWS

RUSTICATED
WEATHERBOARDS

PLINTH
BOARDS

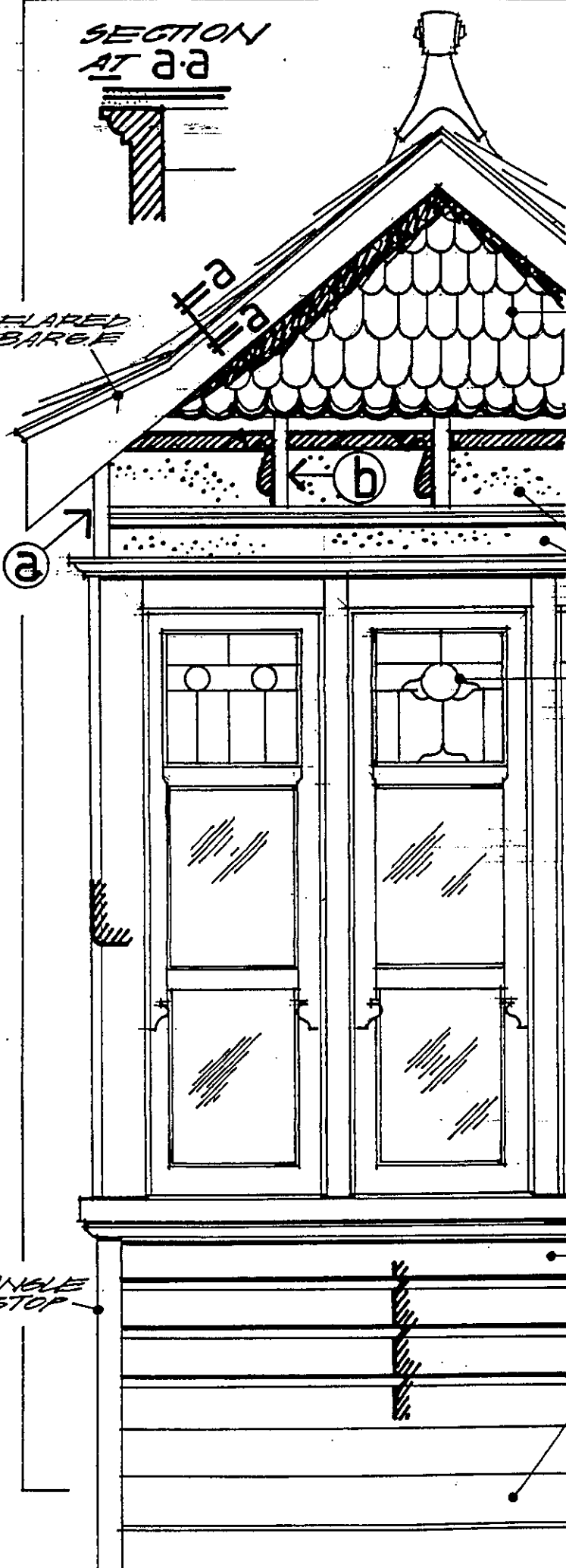
edwardian
details : bay

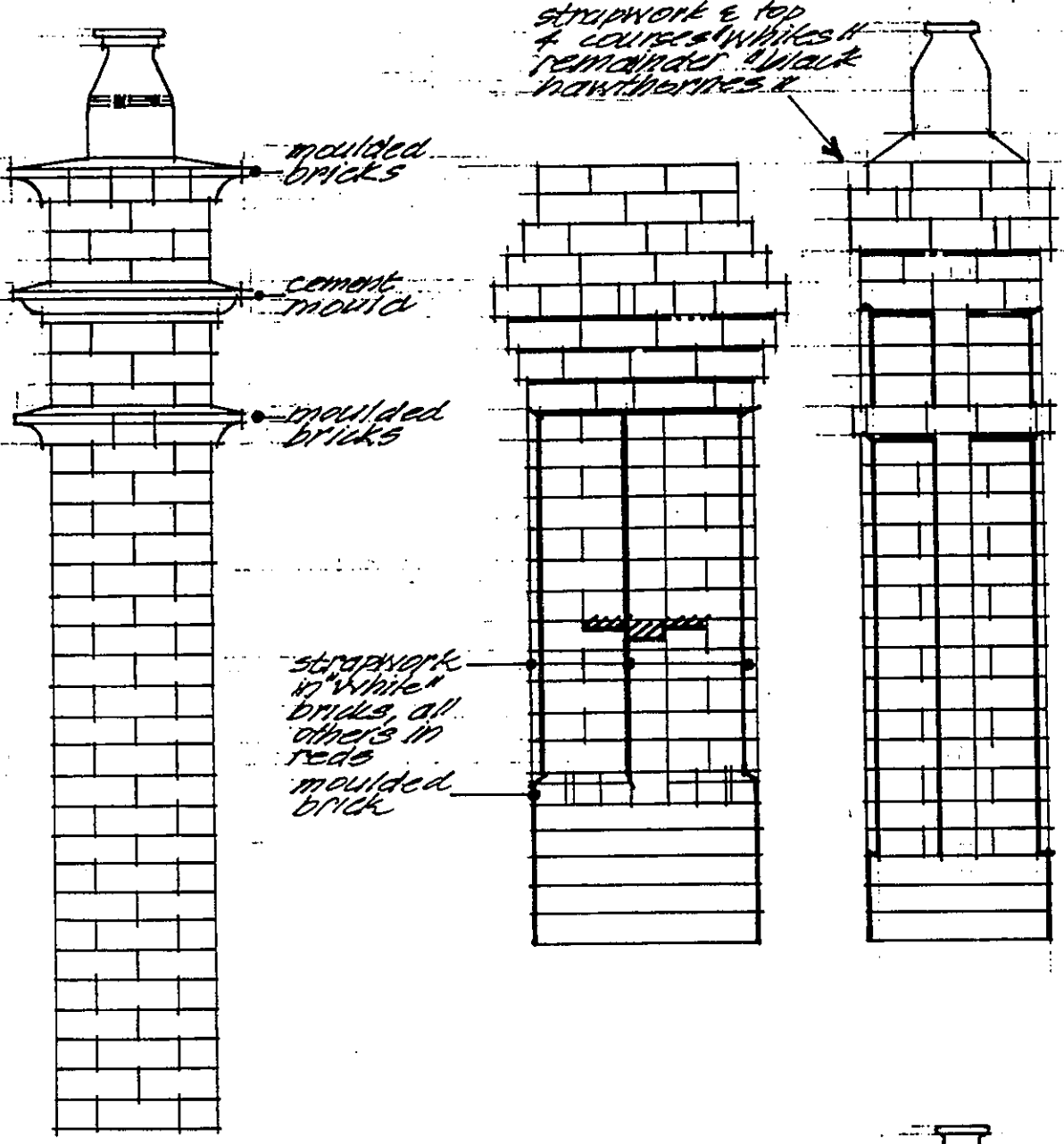
FLARED
BARGE

a

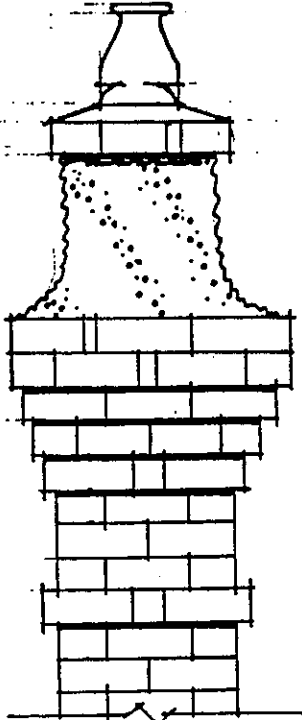
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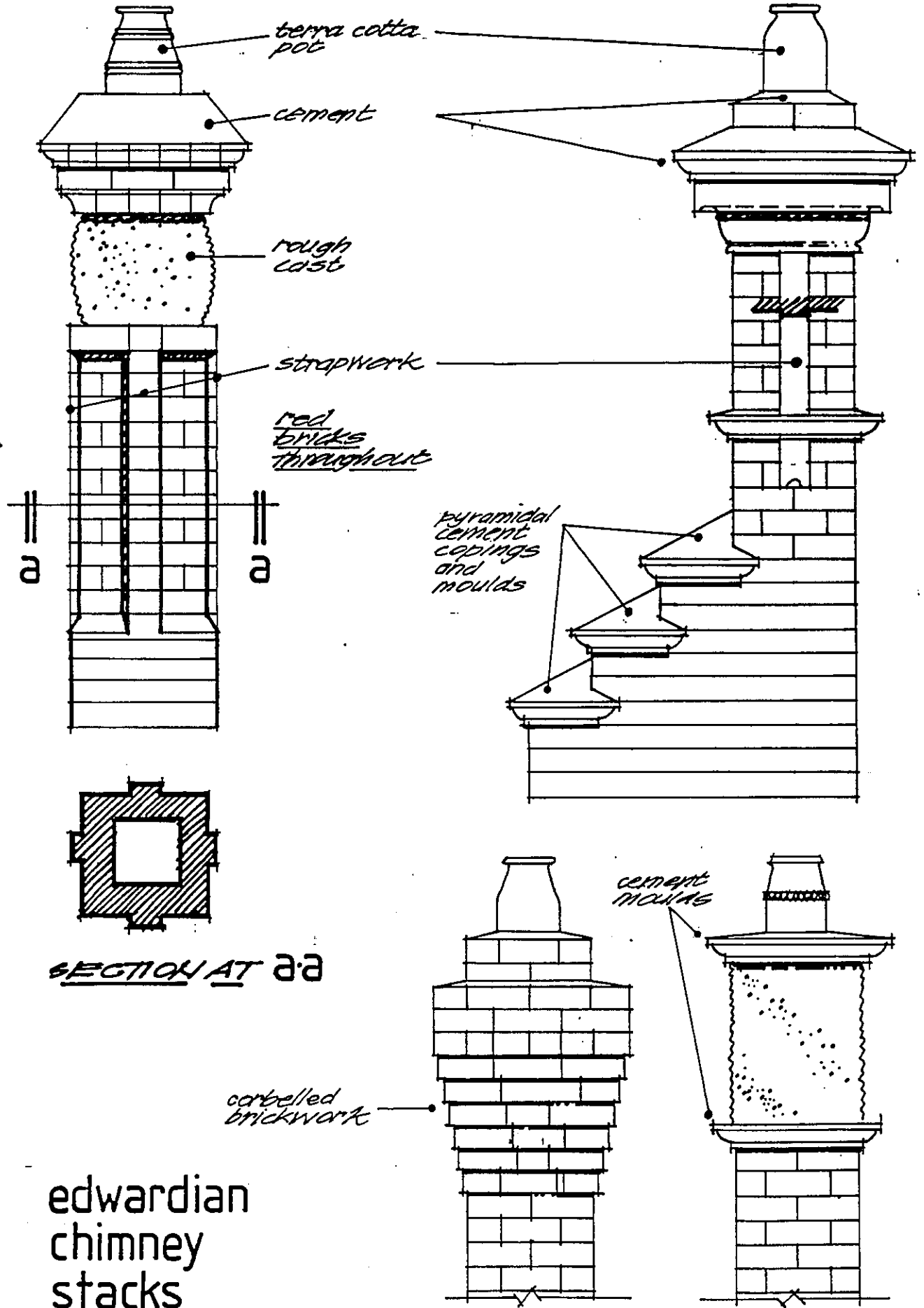
ANGLE
STOP





edwardian chimney stacks





edwardian chimney stacks

Verandahs: Verandah friezes and balustrades were heavily influenced by Art Nouveaux motifs including the stemmed leaf symbol cut with a fret saw into narrow battens. Its acceptance in Box Hill was widespread, supplanting the earlier work of the Queen Anne architects who drew for a great part in this area on American precedent.

Barges and Eaves: These were similar to the Queen Anne style.

Skirtings and Architraves

Classically inspired mouldings were often retained in Edwardian villas and used in conjunction with the ribbed moulds characteristic of the Queen Anne period.

Doors: Front doors were similar to Queen Anne precedent, the lock rail being higher than that of the Classical Revival villas of the previous century. The glazed panel above the lock rail was often segmentally arched and the bottom face enriched with a sill mould and fringe. The glazing was either lead lighting or Flemish stained glass, later supplanted by the ubiquitous "Arctic" pattern ripple glass of various colours.

- Surface Treatments

Walls and ceilings continued to be finished in timber (quirk beaded) and plaster, but the development of the decade was the widespread use of stamped zinc sheets. Metal ceilings and dados exhibiting designs heavily influenced by the Art Nouveaux movement were both cheap and visually effective. A limited range of patterns is being reproduced today and is most suited to buildings of this era. Although generally painted in a single colour, ceilings were occasionally finished in delicate pastel tints enhancing the designs of the metal sheets. It is not known if examples survive in Box Hill.

- Fences and Gates

The timber picket fence is characteristic of the period although few examples survive in Box Hill. The gate and fence posts display joinery techniques typical of the period, the moulded caps giving way to curves and scrolls and sections being turned on the lathe after the fashion of the period. Although the use of late Victorian pickets was common enough, subtle changes were introduced, including the use of narrow pickets (35mm) with round tops.

Important Do's and Dont's

Do not overpaint tuckpointed brick surfaces.

**CITY OF BOX HILL
HERITAGE GUIDELINES**

5. Californian Bungalows

1. Introduction

These Guidelines and others in the series describe the salient characteristics of various architectural styles encountered in the City of Box Hill. They will help readers to identify the style of individual buildings and serve also as a source of inspiration when making alterations and erecting new buildings in sympathy with their character.

The Californian Bungalow replaced the Federation villa during the second decade of this century and dominated the 1920's. Its origins are found in the houses developed around Los Angeles, California, during the first decade of this century which were, in turn, influenced by local wood building traditions, the Arts and Crafts movement, and by Japanese and Swiss building techniques and forms. In Box Hill, all of these influences can be seen in its Californian bungalows.

2. Typical Forms and Elements

In form and detail, the bungalow represented a dramatic departure from the Federation period. The Swiss chalet roof was characteristic and the verandah, carried on heavy piers or posts was an integral part of the bungalow form. It was formed by an extension of the roof and was a deeply projecting and shady structure carried on massive piers and beams with the main gable above finished either in shingles or a combination of shingles and strapwork on roughcast or asbestos cement sheet. The piers always consisted of a wide masonry base sometimes with niches, and a variety of supports above including truncated masonry extensions, coupled posts and cast cement columns with either smooth or fluted shafts. They supported the principal roof beams and represented, in the case of the coupled posts an opportunity for the decoration of the post/beam connections. In Box Hill, the enriched brackets at these points are a distinguishing characteristic, exploiting the Japanese theme with flare.

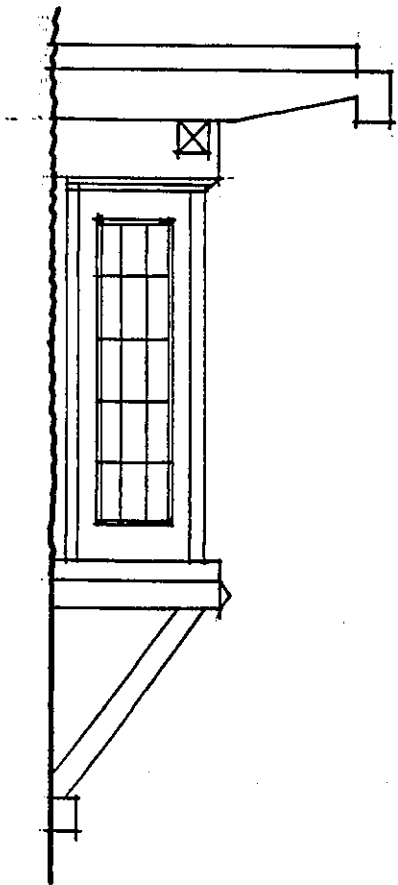
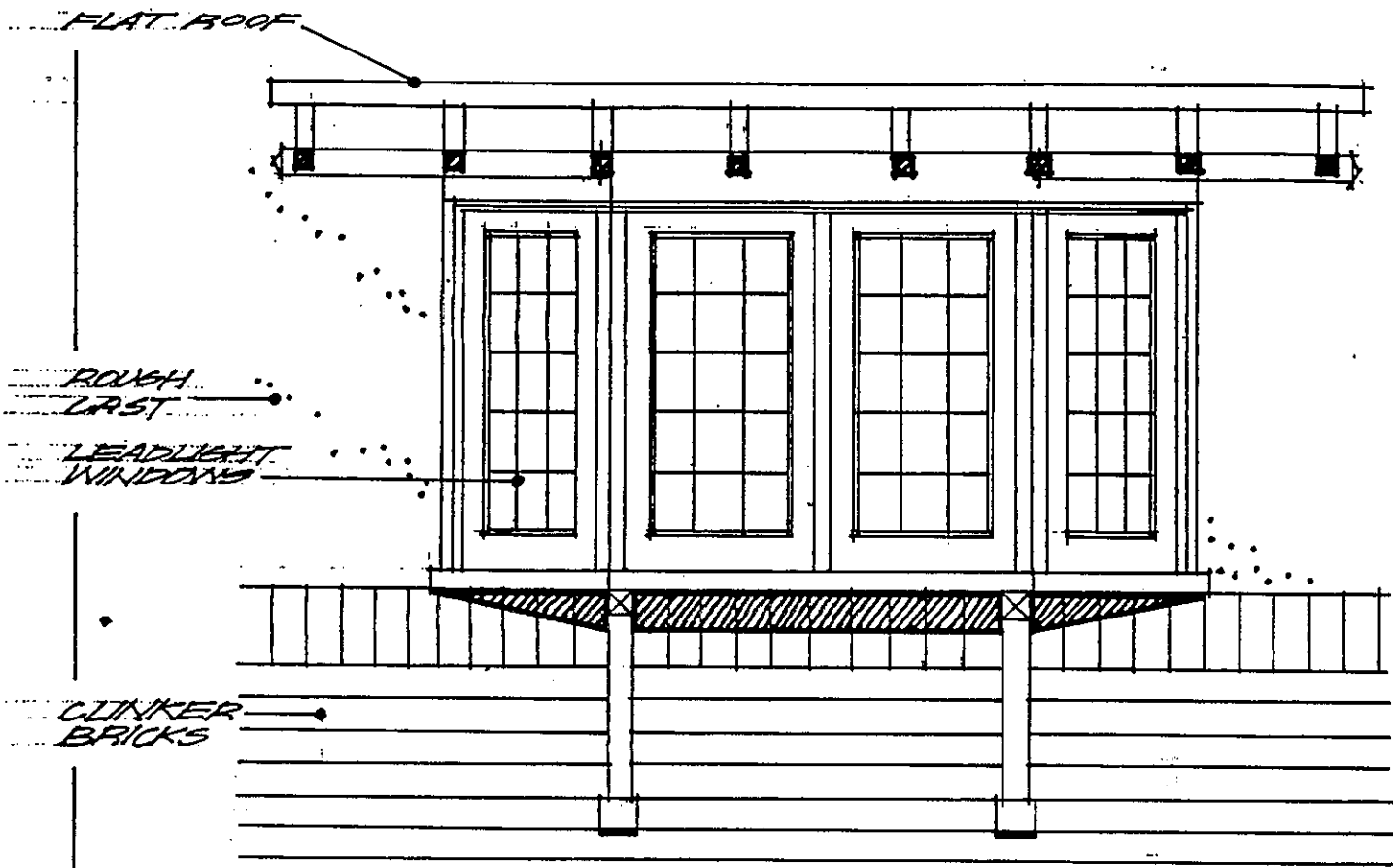
- Windows

Bungalow windows were double hung, set so as to project beyond the wall line with the sill being supported on timber or brick brackets. Narrow timber hoods were often fixed at window head height and the upper sashes were always enriched with glazing bars and leadlight work. The bars formed a range of characteristic patterns, including diamonds and crosses, and recalled the Arts and Crafts origins of the style.

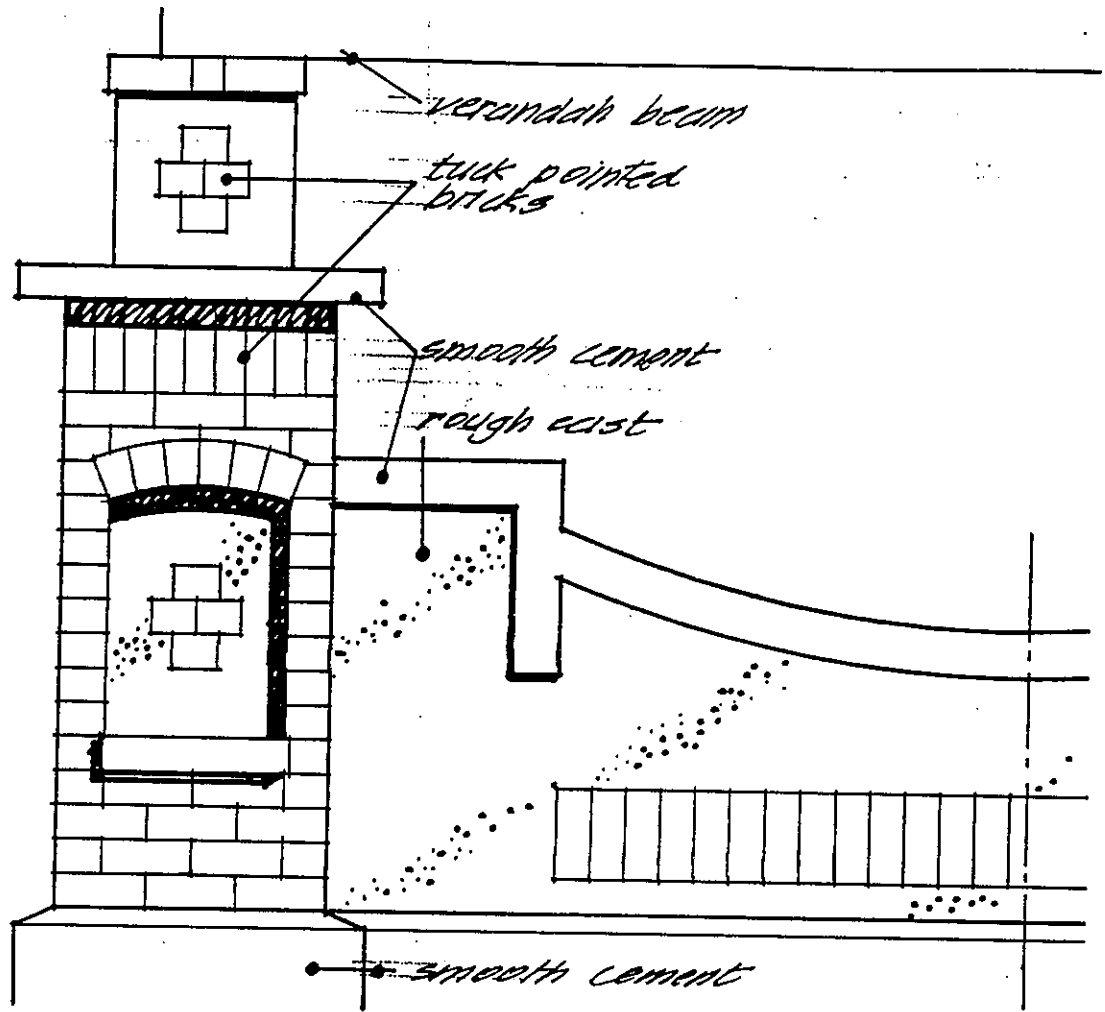
Tiny windows were also a feature, too small to have any practical purpose but important character elements, being enriched with leadlight work and surrounded by roughcast.

- Chimneys

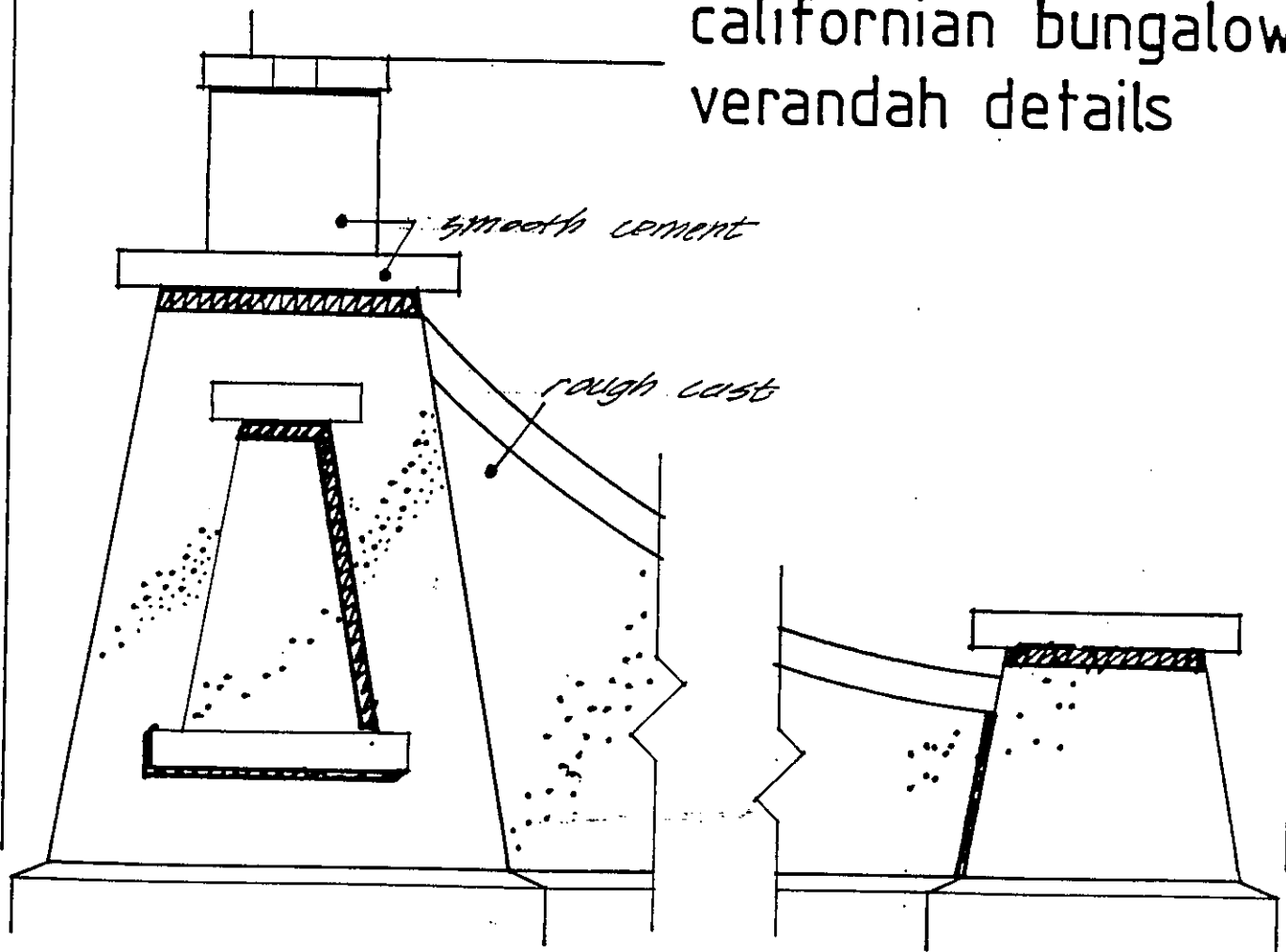
Chimney stacks were often tall and compared closely with those of the contemporary Arts and Crafts style. They were typically rough cast and crowned by a 230mm soldier course of bricks or by an over hanging concrete slab surmounted by an undecorated terra cotta pot.

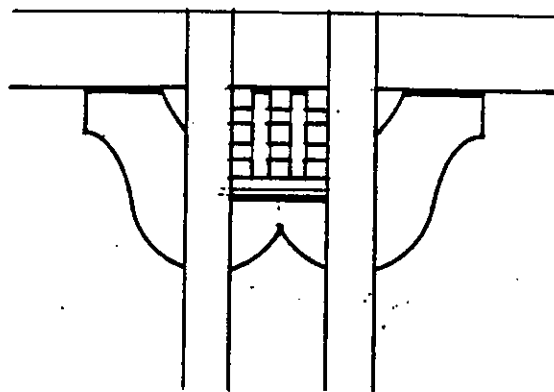
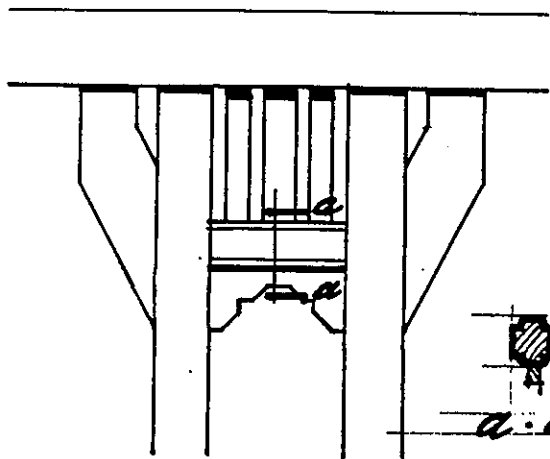


californian bungalow
bay window

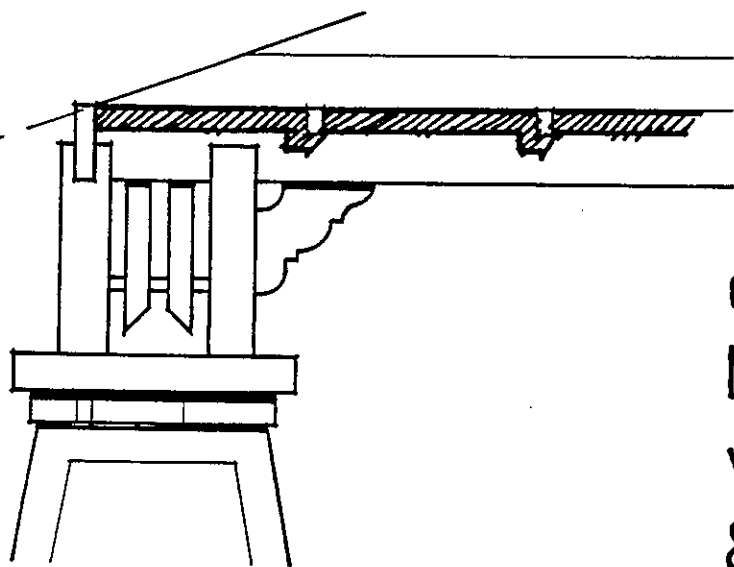
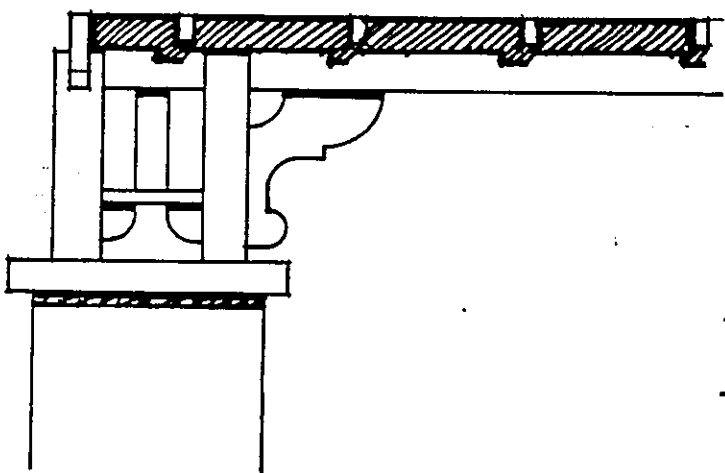
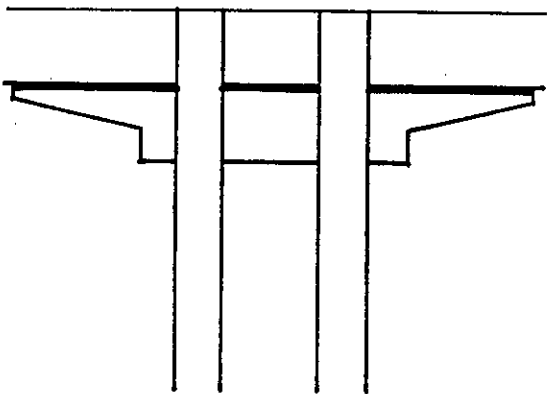
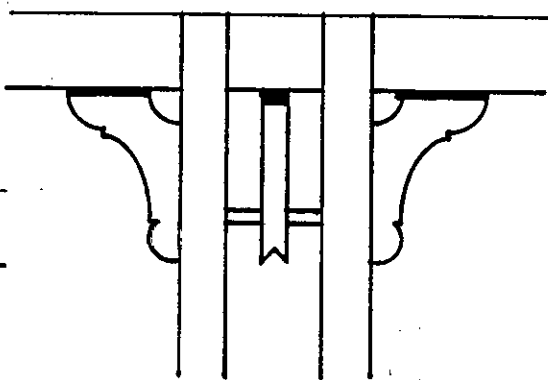


californian bungalow verandah details





a-a



californian
bungalow:
verandah post
& beam details

- Surface Treatments

The complexity of surface treatments was a hallmark of the style, the juxtaposition of finishes being expressive of the picturesque nature of Arts and Crafts influenced buildings. In Box Hill, brickwork is typically used sparingly and concentrated on the verandah which functioned as the main design feature. Clinkers and reds were common, ornamental work being black and white tuckpointed and relieved by niches and patterns in the piers with ledges and soldier course trims. Rough cast and fair faced stucco work added complexity which was reflected also in the front gable treatments. The main house walls, by contrast, were comparatively plain and generally weatherboard clad.

Roofs were terra cotta or cement tiled.

- Typical Elements: Joinery

Joinery details represented a total departure from past practices.

Barges were unenriched, usually fitted with a batten to support the tile verge.

Eaves were timber lined and raked without fascias, the quadrant gutter being carried on a quad mould or square batten fixed to the exposed rafter ends.

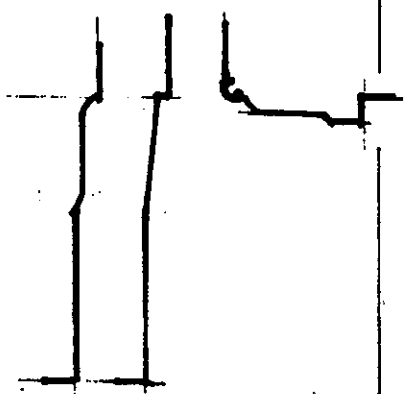
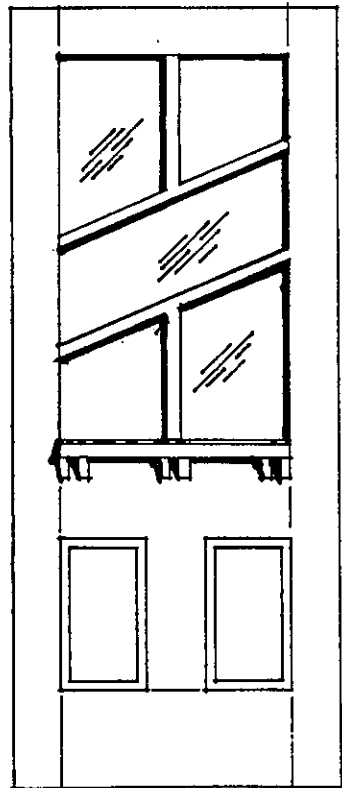
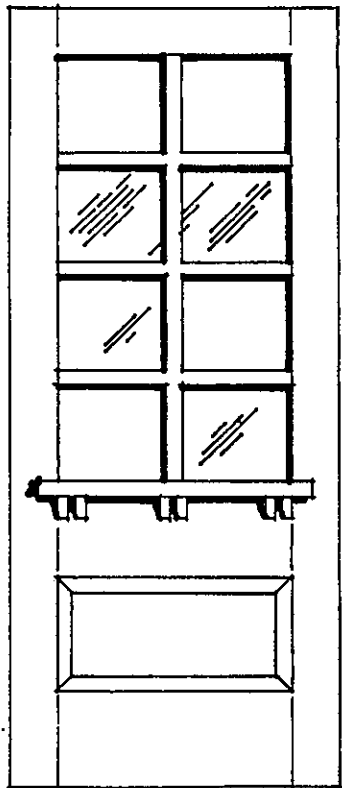
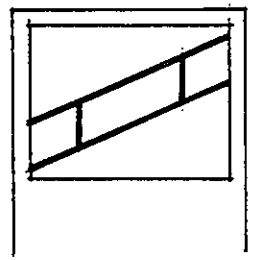
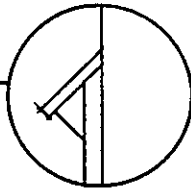
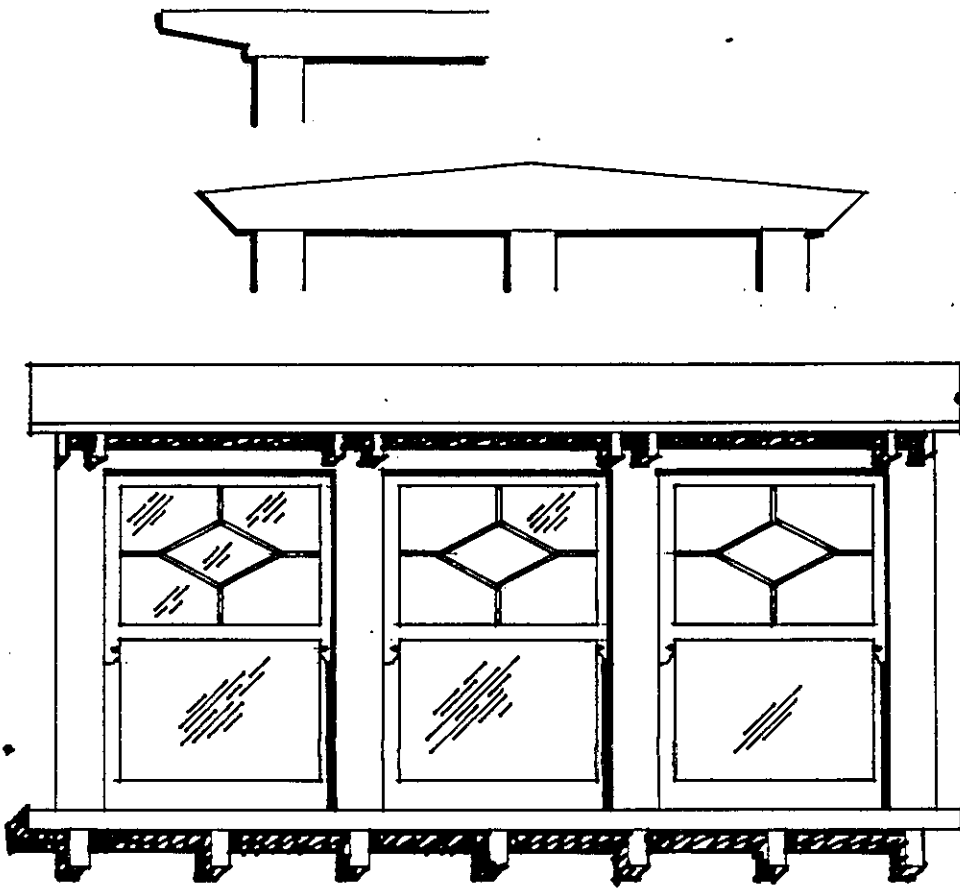
Skirtings and Architraves, etc.

Interior joinery was dark stained, skirtings and architraves conforming to simple profiles. Windows were graced by wide sills and reveals, panelled doors with leadlight work were also dark stained and the door head height was emphasised by a plate rail effectively subdividing wall surfaces into the "fill", below and "drop" above. Ceilings were plastered and occasionally subdivided into panels by dark stained beams.

Slated screens were also features visually separating the entrance hall from interior passages.

- Linings

Stamped zinc linings were replaced with plaster and timber. The walls often had dark panelled timber dados made from plywood and timber strapwork surmounted by fair face or textured plaster. Ceilings were either subdivided into panels, as noted, or finished with plaster sheets carrying cast cement patterns.



SKIRTINGS
&
ARCHITRAVE

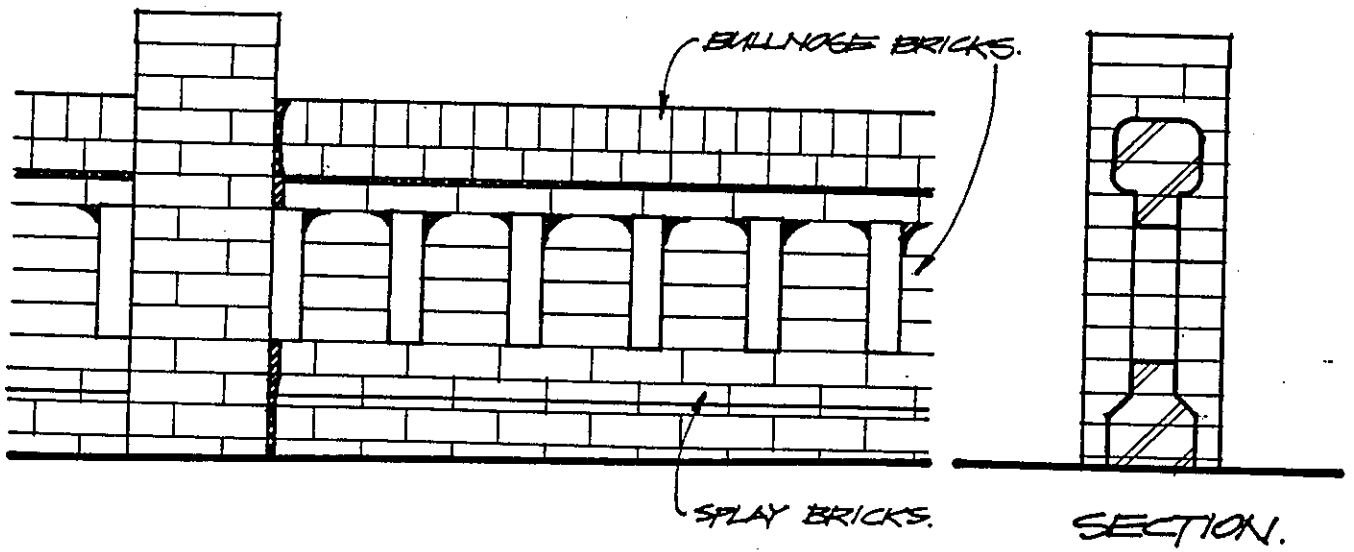
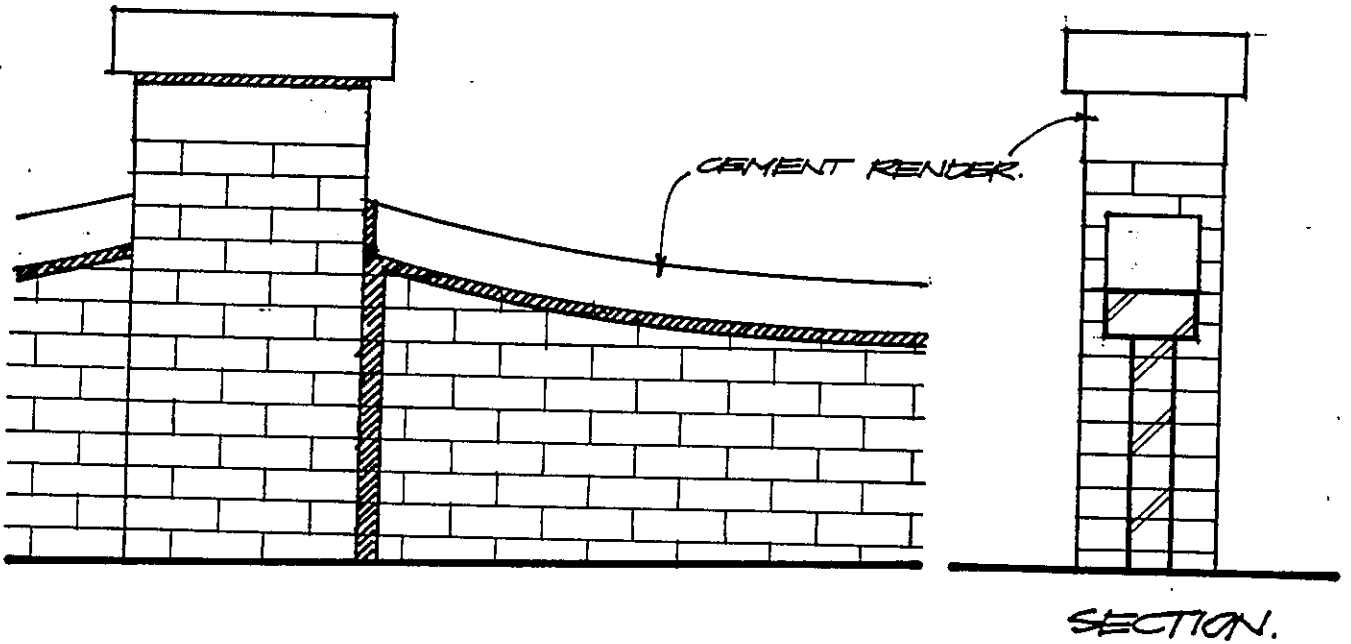
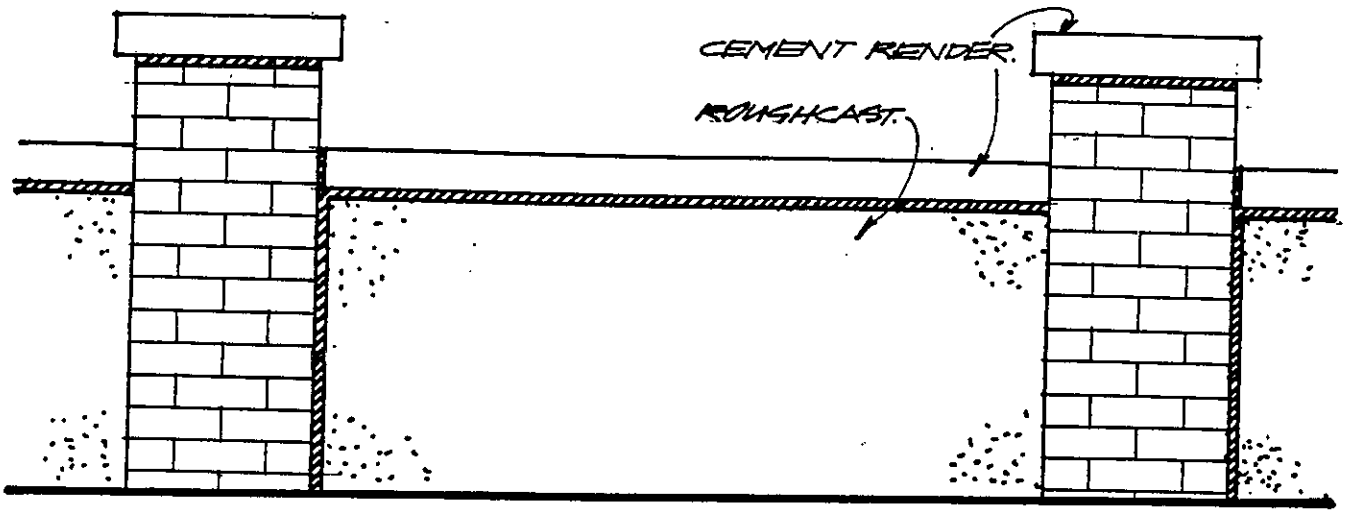
californian
bungalow
window &
door details

- Fences and Gates

In Box Hill Californian Bungalows were commonly provided with crimped wire fences and gates consisting of the common scalloped wire fencing secured to timber posts with curved or pyrimdal tops. Less common alternatives included Humes patent rolled steel fences but their survival in Box Hill is uncertain. More often the treatment of the verandah piers was extended by the use of brick and cement pillars connected by means of dwarf walls and chains hanging in a graceful catenary. Alternatively the chains were replaced by three inch wide plain timber pickets.

Important Do's and Dont's

1. Do not overpaint the varied brick and stuccoed surfaces which are important character elements of Californian Bungalows.
2. Similarly, if the dark stained timbers of the interior spaces survive, retain them instead of overpainting them in lighter colours.
3. Do not underate the heritage value of the Californian bungalow style by "mixing" it with features of earlier building styles.
4. Make sure that new front fences are compatible with the bungalow style and not "borrowed" from earlier periods.



californian bungalow fences

CITY OF BOX HILL HERITAGE GUIDELINES

6. Arts and Crafts Villas



1. Introduction

These Guidelines and others in the series describe the salient characteristics of various architectural styles encountered in the City of Box Hill. They will help readers to identify the style of individual buildings and serve also as a source of inspiration when making alterations and erecting new buildings in sympathy with their character.

The Arts and Crafts movement has its origins in England where William Morris and others, working during the middle and late Victorian period, drew upon the work of Medieval craftsmen as a source of inspiration. They argued that the work of the craftsman should not be separated from that of the designer, the very act of making something involving artistic judgement. This view was at odds with the mechanised production methods of the industrial revolution with the result that the Arts and Crafts movement was seen as a somewhat romantic return to values rapidly being lost. In so far as domestic architecture was concerned, the movement had a far reaching effect and is inseparable from the development of the English Queen Anne style, Edwardian design and the Californian Bungalow. Typically, Arts and Crafts elements are those where the craftsman's hand can be readily seen. They include the use of rough cast (pebble dash) leadlight work, complex brickwork, stained timber, shingles and small jewel like windows enriched with lead light work, hood moulds and brackets. The Arts and Crafts vocabulary was comprehensive and by no means limited to the exterior fabric of buildings. Whilst its impact can be traced in Box Hill by a close examination of the architectural styles described in other leaflets of this Guidelines series, it also deserves a place on its own. Box Hill, after all, sustained the greater part of its development during the Inter War period and it was at this time that a small number of houses were built which cannot readily be grouped under other stylistic headings. They are best described as Arts and Crafts.

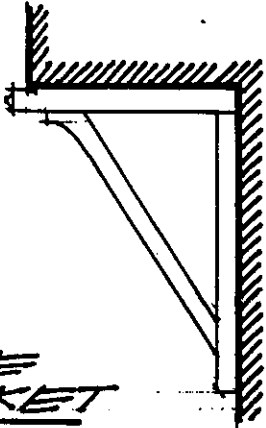
2. Typical Forms and Elements

Arts and Crafts houses are usually distinguished from other contemporary styles by their steeply pitched roofs and their contrived elevations which are expressive of the sense of shelter and home. Symmetry is an important feature. Chimneys, symbolic of this notion, are tall and prominent elements, often placed centrally on the main elevation or symmetrically either side of a central feature. The symbolism of the arch as an embracing and protective element is commonly used, especially over the entry. The roof lines are often carried down in a sweeping curve well below ceiling level, again emphasizing the protection afforded by this element. Importantly, Arts and Crafts houses can be readily distinguished from the contemporary Bungalow Style not so much by the detail which is often comparable but by their forms and especially roof pitches.

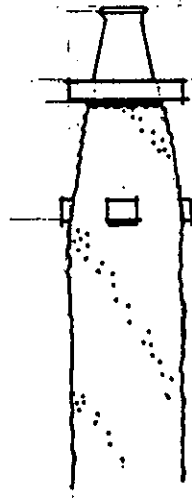
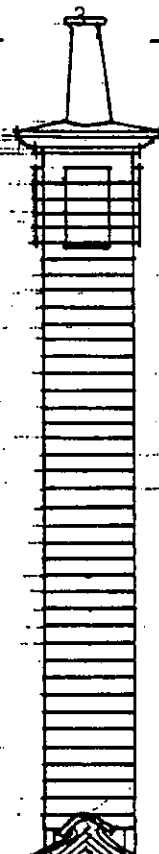
ELEVATION
AT a



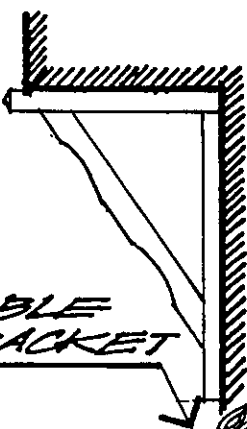
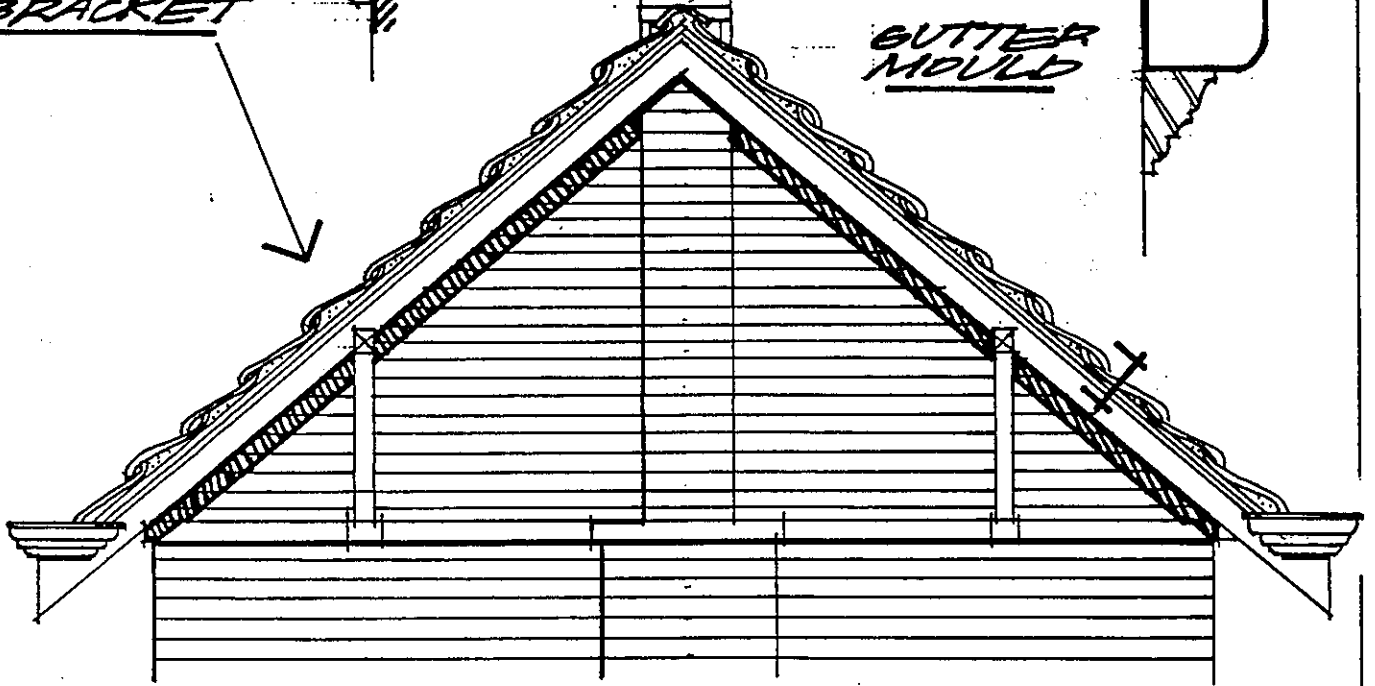
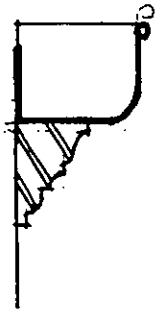
PORCH
DETAIL



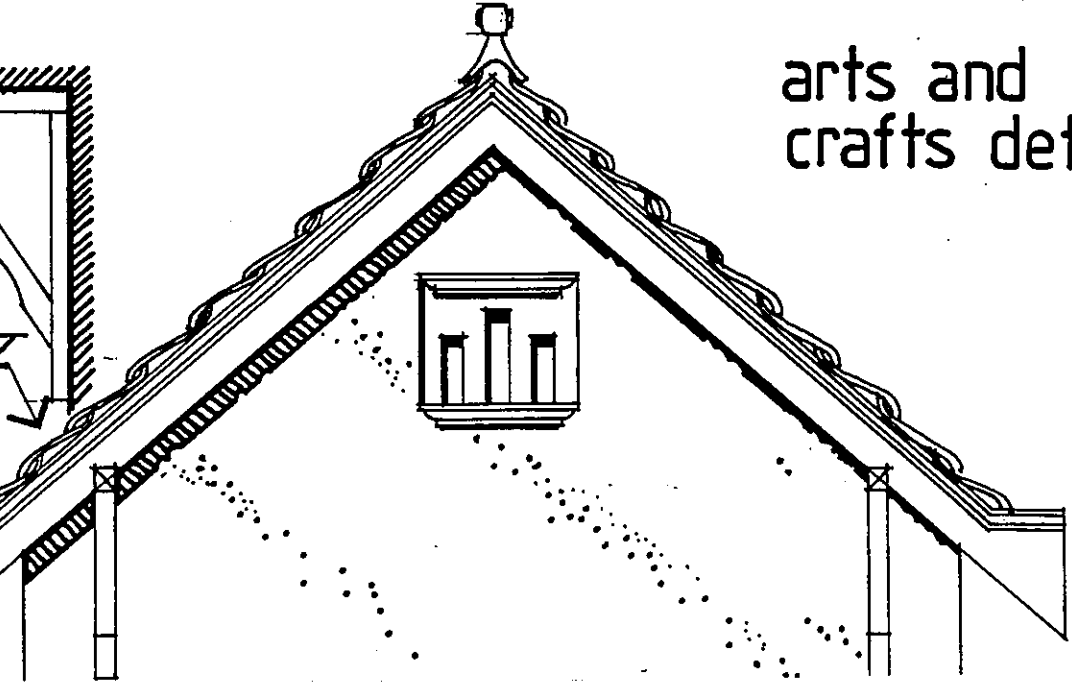
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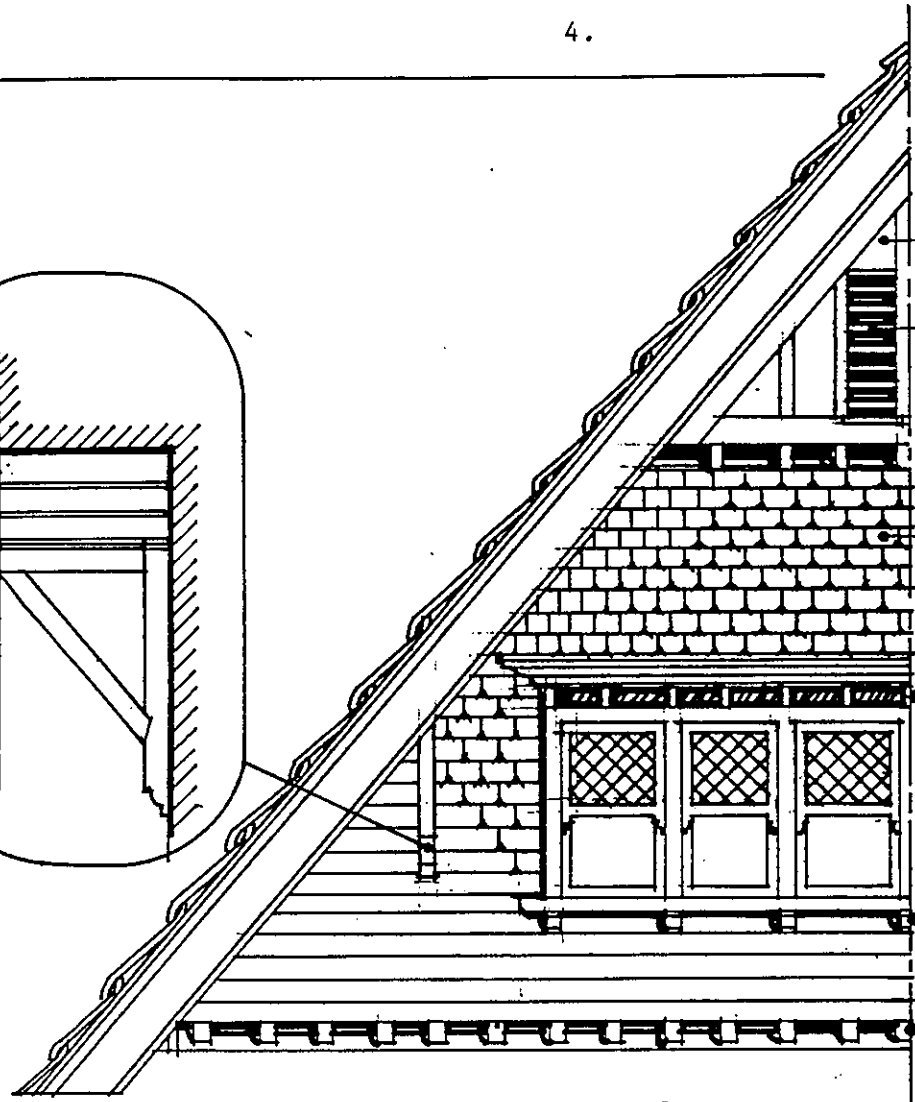
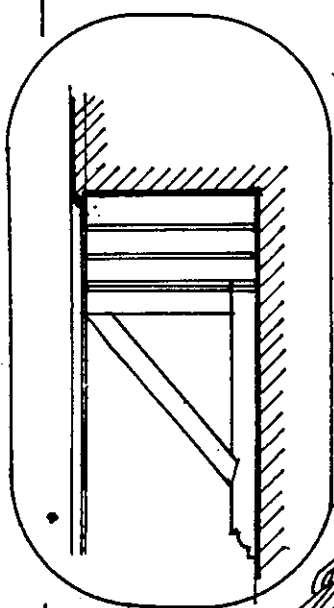
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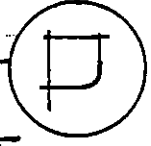
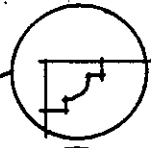
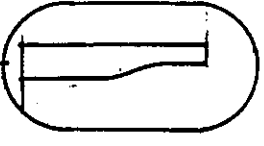
arts and
crafts details



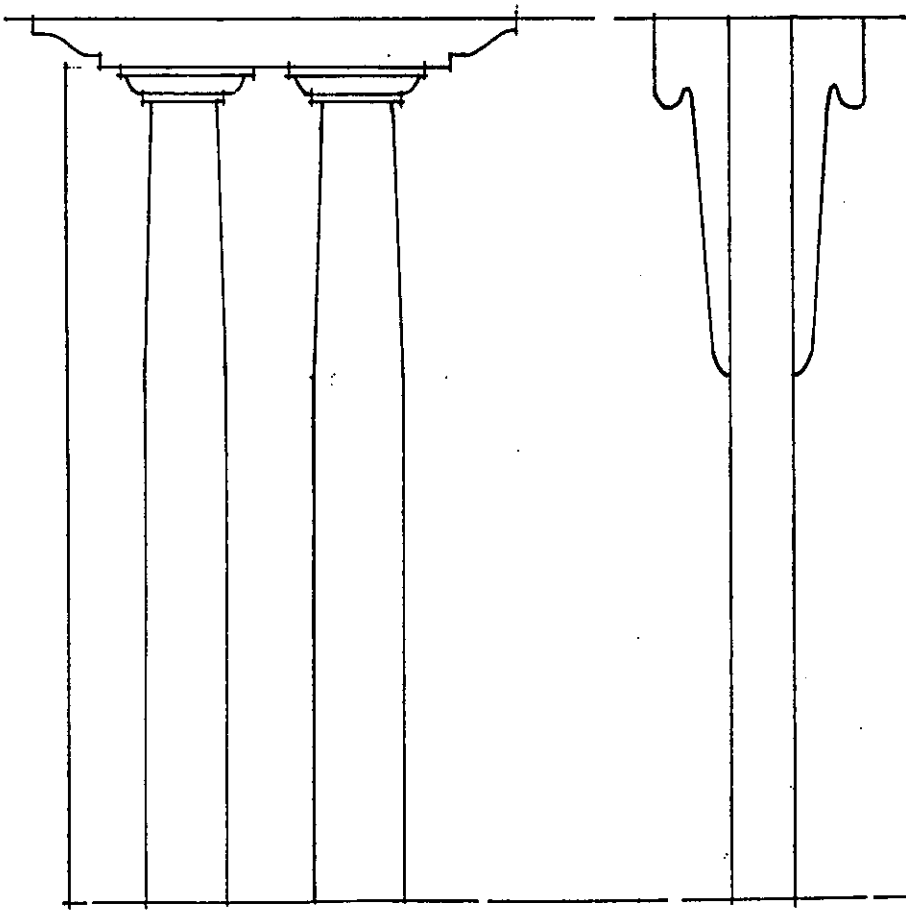
CEMENT SHEET

TIMBER LOUVRES

TIMBER SHINGLES



VERANDAH ROOF



arts & crafts
details

- Verandahs and Porches

Verandahs roofs may be attached to the bulk of the house or be formed by an extension of the main roof. They may be carried on large brackets or alternatively by timber posts of simple form, usually square in section but sometimes partially or wholly truncated. These posts are often coupled, as in the Californian Bungalow, and linked by a small beam with decorated ends. Brackets are simple, enhancing the unsophisticated effect. Arts and Crafts villas are also distinguished by their use of the recessed porch, often emphasised by a prominent round arch as a centre point of the design. Its curved shape may be further accentuated by several courses of shaped red bricks in contrast with the general wall finish.

- Windows

These are distinguished by their "cottage" appearance, often achieved through the use of diamond shaped leadlight work, especially in the upper sashes of double hung windows, and in casements. Individual windows are grouped into rows and curved or rectangular bays which become important picturesque elements in the organisation of elevations. Occasionally, very small windows add to the quaint appearance of these houses. Sills and heads are often detailed in a fashion similar to the Bungalow with bull nosed brackets and window hoods. Another hallmark of the style is a thin vertically placed roof vent, sometimes louvred, and located centrally beneath the ridge lines in gable ends. On occasions, this feature is enhanced by the provision of three such vents with two smaller "slots" either side of a taller central vent.

- Roofs

Always the dominant element, symbolising the protection which it affords, the Arts and Crafts roof was steeply pitched with sweeping lines as has been noted. Invariably the gable end faced the street and was high enough to incorporate upper level windows. Along the face of the roof slope, dormer windows were common with small gable roofs or sloping flat roofs. The barge overhang was almost always bracketted and the roof linings terra cotta tiles. Sometimes, picturesque towers with bell shaped roofs are features and may be seen in Box Hill.

- Chimneys

Similar to the Californian bungalow but given greater status in the arrangement of elements, the Arts and Craft chimney stack was often absurdly tall, truncated, and finished with an almost top heavy capping slab crowned with a terra cotta pot of characteristic truncated form. Chimney stacks were often used to strengthen the symmetry of a composition by placing one either side of the entry or by locating a single stack in the centre of the main gable.

- Surface treatments

Traditional materials were used for visual effect and included red brick, rough cast and timber or even terra cotta hung shingles over large areas. The effect of half timbering was achieved with timber strap work and cement sheet or rough cast panels. Externally, timber or brick dados were often surmounted by rough cast fill and rough, uncoursed stonework was occasionally incorporated in pillars and low walls.

- Joinery

External joinery generally had a disarmingly simple appeal, emphasizing the primary importance of solid timber sections. Although some moulded timbers were carried through from earlier styles and often used on barges and doors, the emphasis was on simple appealing forms relieved by curvilinear beam ends and post brackets. Greater visual interest was described to the choice of surface treatments rather than the use of complex fretted and moulded timber work.

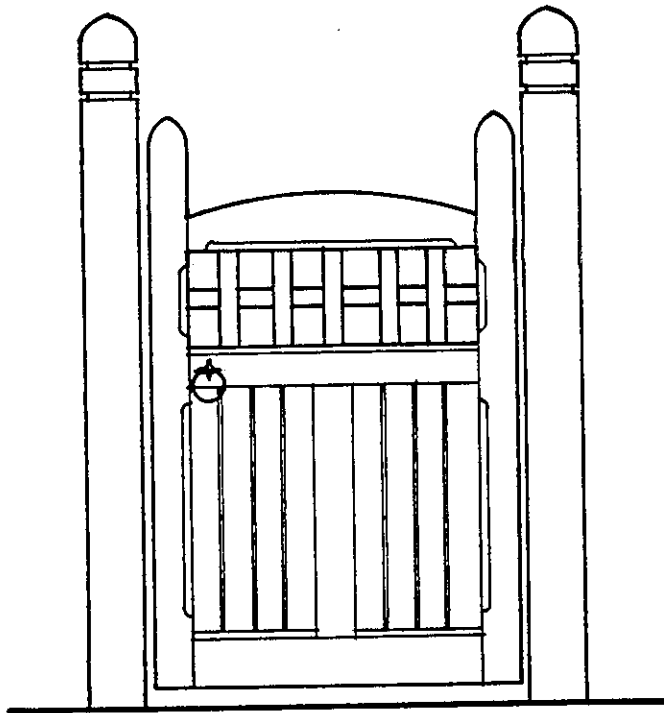
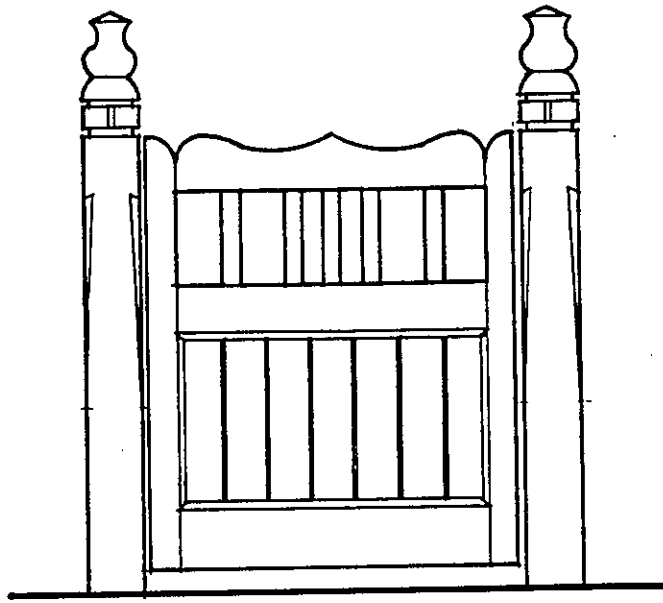
Inside, dark timber panelling, ceiling beams and plate rails were typical of the main rooms whilst architraves occasionally had truncated sides oversailed by the heads.

Skirtings and architraves of red pine, dark stained, were similar to those of the Bungalow with minimal enrichment, extending to a splayed or slightly curved face.

Front doors were either single or double leaf with flydoors, the upper panels being invariably obscure glazed and the lower panels being traditionally constructed with bull nosed sunk moulds. Alternatively, the section beneath the glazed panel was filled with vertical vee jointed linings. There were many variations.

- Fences and Gates

Few survive in Box Hill. Although the fences of the contemporary Californian Bungalow are compatible, other types include a low timber framed fence clad with vertical vee jointed linings and capping rail. The height of the fence might be extended by a continuous strip of square lattice work finished with another capping rail, the effect being complete with a cypress hedge. Volcanic rock fences are also characteristic. Curiously, a small number of timber gates and gate posts survive in the municipality, the illustration being representative. Picket fences incorporated wide pickets with flat tops and motifs cut out of the picket head.



arts & crafts:
gates

