Architectural Heritage of Pondicherry

TAMIL AND FRENCH PRECINCTS

ARCHITECTURAL HERITAGE OF PONDICHERRY

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April 2010

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A preliminary study on the French and Tamil Precincts of Pondicherry was undertaken with the financial assistance of the **Town and Country Planning Department**, Government of Pondicherry (2000/01). This hand book is based on the above, updated, extended and published under the **Asia Urbs Programme, Pondicherry.**

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Town and Country Planning Department, Government of Pondicherry for their financial assistance for the initial study and listing/grading of buildings in the French and Tamil parts of the old town.

École Française d'Extrême-Orient (EFEO) and the *Institut Français de Pondichéry (IFP)* for providing many old photographs and drawings from their valuable archival collection.

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Dedicated to the memory of
the late Mme Françoise l'Hernault (1937-1999)
of the École Française d'Extrême-Orient
who was actively involved in the protection of
the architectural heritage of Pondicherry

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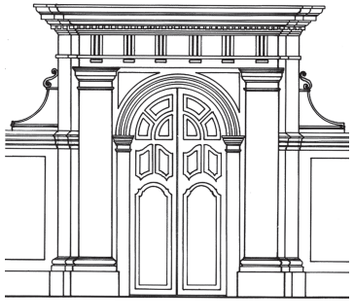

Foreword

Pondicherry has an interesting cross-cultural history and its built form is one of the major components in lending a unique identity to the town. The old town of Pondicherry which is a showcase of the two distinct architectural styles – French and Tamil – is recognised in principle as a 'Conservation Zone' by the Government of Pondicherry.

Over the last few years the town has been fast losing its charm and its unique Franco-Tamil character because of developmental pressures, unchecked demolition of heritage buildings, lack of awareness about heritage values, property divisions, unsympathetic alterations of original buildings and insensitive new constructions.

For some years it has been felt that an effort should be made to save the town's architectural heritage. This publication is intended as a user-friendly manual – explaining the issues of historic preservation within the Tamil and French precincts of the old city.

Main topics covered: understanding the architectural characteristics of both the towns, conservation principles, legal issues and how to construct new buildings harmoniously within the historic context.

We would like to mention that the examples shown here (especially the positive and negative examples) are only to facilitate better understanding of the conservation issues and are in no way intended to promote or undermine the reputation of the owner/architect/engineer of the concerned building.

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1

INTRODUCTION

Old Town of Pondicherry
Conservation Issues
Definition of Listing and Grading of Heritage Buildings
Conservation Principles
Preserving the French and Tamil Styles

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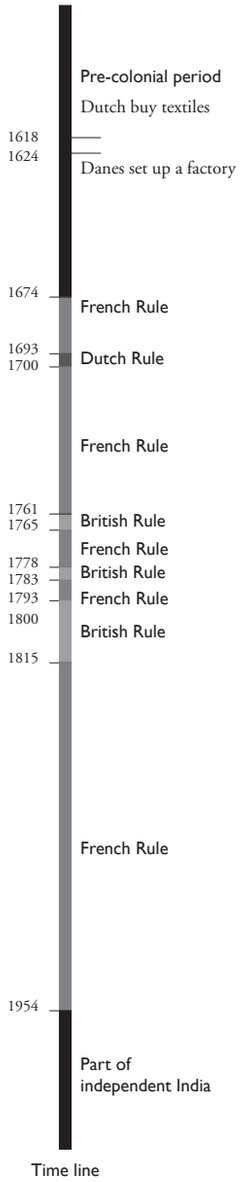
1.1 Old Town of Pondicherry



Originally a scattered settlement of fishermen and weavers, the place later developed into a busy trading port having ties with the Roman Empire (and is referred to as 'Poduke' by the classical geographers of Rome and Greece). Mentioned as *Vedapuri* (as it was a vedic learning centre in ancient times) the place later flourished as a port town of the Cholas under the name *Puducheri* ("new town" in Tamil) until it finally became a busy trading centre of the colonial powers. The place was called *Pondichéry* by the French, who established their trading port and constructed a fort (1689) near the location where today the Aye Mandapam stands. Following the expansion of their activities and settlements, the entire town was fortified, including the Indian quarters, and the street plan in 1750 was almost the same as today.

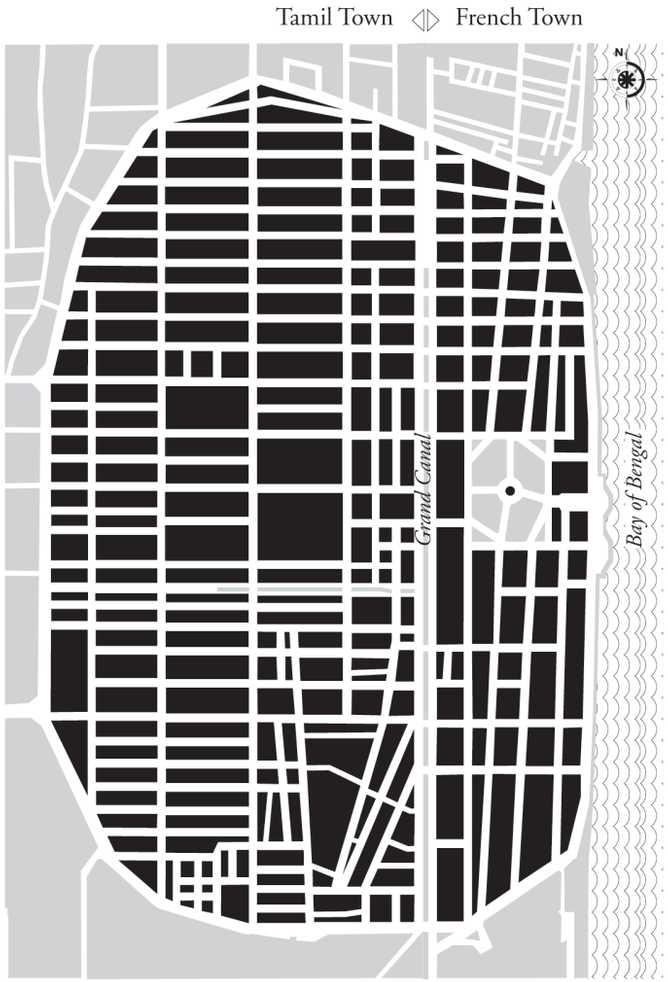
Till now, this orthogonal pattern of streets has been assumed to be modelled on the French 'Bastide' towns. However some recent discoveries point to its root in the master plan made by the Dutch for the development of Pondicherry during their occupation in 1694.

In 1761 Pondicherry was destroyed by the British after their siege and returned to the French in 1765, following which there was a period of active reconstruction (mostly over the old foundation remains). The Grand Canal was completed around 1788 as a storm water drain marking a clear demarcation between the French and Tamil towns.

The fortified town, planned on a grid pattern in oval shape, encompasses two different parts – Tamil and French, divided by the canal. The Tamil town in turn has an intimate fabric of Hindu, Christian and Muslim quarters.

The French town has structures in the European classical style comparable to the Parisian villas of the "hôtel particulier" (urban upper middle class in France) while the buildings in the Tamil town have a strong vernacular influence of surrounding Tamil Nadu.

The two contrasting styles, existing side by side, have influenced each other, resulting sometimes in a unique blend of European and Tamil architectural patterns, reflecting the cross-cultural impact and giving the built form a certain "Pondicherry-ness."



Plan of Pondicherry

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1.2 Conservation Issues

What is the problem?

Old residents and visitors agree that Pondicherry is fast losing its special character or ambience. This is not just because of increasing population and pollution; one of the major reasons is that old buildings that formed the special quality are disappearing at an alarming rate and the type of structures that are coming up could be anywhere in India. Thus the 'sense of place' is getting blurred and there is a loss of the town's cultural identity.

Pondicherry does not have a large number of monumental buildings but is noteworthy for its domestic architecture. The architectural character is a result of hundreds of French and Tamil houses that create the 'milieu' or 'ensemble'. If this heritage has to be protected then every old house counts.

The responsibility of safeguarding the special ambience and the architectural heritage of this town lies with its building owners, citizens and political representatives as well as the Administration of the Union Territory.

How do we solve this problem?

- Prohibit demolition of listed buildings through legislation and incentives. Require compulsory documentation before undertaking any alteration or extension work.
- Impose high penalties on those who demolish without permission.
- New buildings within the designated conservation precincts should follow the traditional pattern of the surrounding buildings, so that they are 'unobtrusive' and blend inconspicuously into the surrounding architectural style. Façade finishing, colour schemes, etc, will also have to be regulated and controlled.
- Strictly monitor building activities in the old town, including over weekends, to ensure that buildings are not disfigured or demolished without permission, and façade designs are executed strictly in accordance with the approved building plans and colour schemes.

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Montorsier Street (Tamil Town) in 1988

Same stretch at present

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1.3 Definition of 'Listing' and 'Grading' of Heritage Buildings

Among conservation measures the need to preserve existing old buildings is foremost. Since 1987 INTACH, together with EFEO, has prepared and updated an inventory of heritage value buildings in the old town. These buildings are classified into different categories (based on their architectural/historic/archaeological importance). The total number of listed buildings in 1995 was about 1800, but according to the latest revised list (2003) there are now only about 1200 buildings left. This is because during the last eight years hundreds of heritage buildings have been demolished – mostly in the Tamil part.

Presently the list has been revised and updated according to the standards prescribed by the Ministry of Environment and Forests (MoEF). The former listing graded the buildings into A, B & C categories. The revised list has four categories: I, IIA, IIB & III *(ref p98-99 for details and map)*.

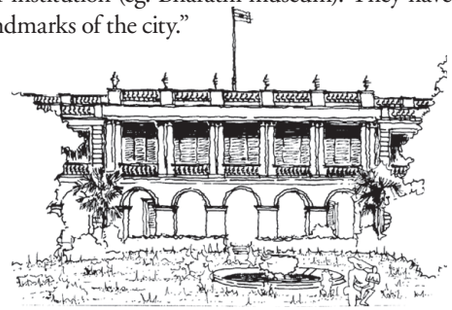
Listing

The draft Heritage Regulation – circulated by the MoEF – explains listing and grading as follows:

"Listing does not prevent change of ownership or usage. However such usage should be in harmony with the said listed precinct/building."

Grade I

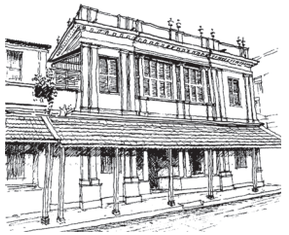
"... buildings and precincts of national or historic importance (eg. Raj Nivas), embodying excellence in architectural style, design, technology, material usage; they may be associated with a great historical event, personality, movement or institution (eg. Bharathi museum). They have been and are the prime landmarks of the city."



Raj Nivas (French Town), Grade I

Grade II (A & B)

"… buildings of regional or local importance, possessing special architectural or aesthetical merit, cultural or historical value, though of a lower scale than in Heritage Grade I. They are local landmarks, contributing to the image and identity of the City. They may be the work of master craftsmen, or may be models of proportion and ornamentation, or designed to suit particular climate."



12, Bharathi Street
(Tamil Town), Grade II A

9, Desbassyns de Richmont
(French Town), Grade II B

Grade III

"… buildings and precincts of importance for townscape (including rock formations), they evoke architectural aesthetic or sociological interest though not as much as in Heritage Grade II. These contribute to determine the character of the locality, and can be representative of life style of a particular community or region and, may also be distinguished by setting on a street line, or special character of the façade and uniformity of height, width and scale."

67, Chandha Sahib Street (Tamil Town), Grade III

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1.4 Conservation Principles

Conservation of any historic town will have to be practised at two levels:

i) individual buildings and

ii) areas of town where a number of traditional structures are still intact and a collection of such buildings form the unique 'milieu'.

The former can be termed 'heritage building' and the latter 'heritage precinct'.

Heritage Buildings

A sincere effort should be made to preserve all the listed buildings. Often superficial blemishes and lack of maintenance persuade people that buildings should be pulled down. However, if the structure is basically sound a building can be rehabilitated economically by repairing cracks and leaks and providing modern amenities of water, electricity, air conditioning, garage etc. Old buildings, if they are basically in good shape, can be restored and put to new uses – for example a residence could be converted into a clinic, small hotel or office, keeping the essential character intact and adding new spaces harmoniously.

Heritage Precincts

Most buildings in precincts are of similar vernacular style and typology, however with individual variations. The harmony of the streetscape is because of the unique form and scale, use of traditional materials, colours, fenestration and decorations. It is the character of the area that needs to be preserved. This can be done firstly, by retaining and renovating old buildings, and secondly by controlling the new buildings that come up in such areas so that they blend unobtrusively into the existing fabric. Therefore new constructions should be such that they harmonise with the special character of the precinct with sensitive architectural and visual qualities, special regard being paid to such matters as height, skyline, façade fenestration and colour, building materials, name boards, volume, harmony and rhythm.

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Example of French style buildings in Pondicherry

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1.5 Preserving the French and Tamil Styles

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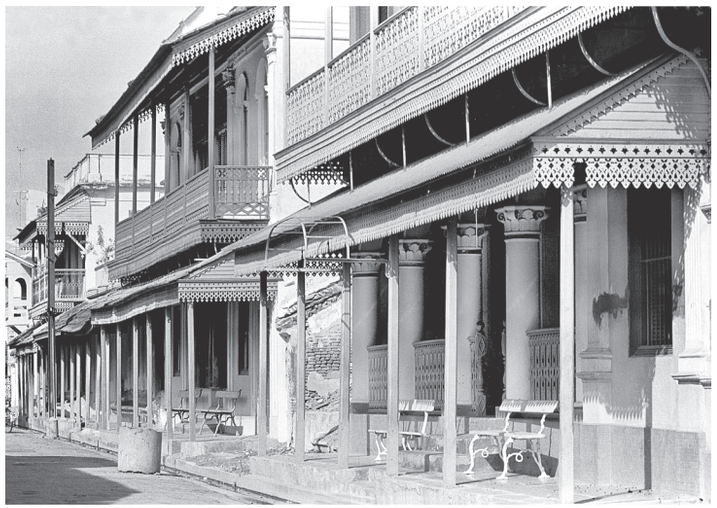

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Example of Tamil style buildings in Pondicherry

The signature mark of Pondicherry is the co-existence of two distinct styles - that of the French and that of the native Tamil. It is important to preserve these two styles simultaneously in order to conserve the cross-cultural image of the town. From the statistics of the stock of heritage buildings in 1995 and 2003 one could observe that the French town is being better preserved than the Tamil town even though the number of heritage buildings are fourfold more in this part.

In most cases the façades which are coming up in the name of 'French' or 'Tamil' styles are not authentic but just pastiche imitations and gimmicky. Also there is a fancy among the owners and engineers/architects to adopt 'French style' even if the building is being constructed in the Tamil town.

Hence the need for a comprehensive and independent set of guidelines for the French and Tamil town areas. In this booklet, the aspects of architectural features, guidelines & recommendations and case studies are dealt with separately for the French and Tamil towns while the information applicable to both the areas, like heritage-friendly byelaws, technical suggestions and approval procedure, are dealt with in the annexure.

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2

FRENCH TOWN

Architectural Features
Guidelines and Recommendations
Case Studies

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2.1 Architectural Features

2.1.1 Layout of the French Town
2.1.2 Streetscapes of the French Town
2.1.3 Design Aspects
2.1.4 Climatic Considerations
2.1.5 Structural System
2.1.6 Construction Techniques
2.1.7 Features of a French House
2.1.8 Features of typical French Façades
2.1.9 Typologies of French Buildings
2.1.10 Compound Walls
2.1.11 Entrance Gates
2.1.12 Windows
2.1.13 Doors
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2.1.15 Colonnades
2.1.16 Pilasters and Cornices
2.1.17 Staircases
2.1.18 Balconies
2.1.19 Parapets
2.1.20 Building Composition
2.1.21 Street Composition

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2.1.1 Layout of the French Town

French Town originally developed along the coastline around the Government Square (present 'Bharathi Park' area). This Square was surrounded by stately government buildings, while residential buildings interspersed by institutional buildings extended on either side.

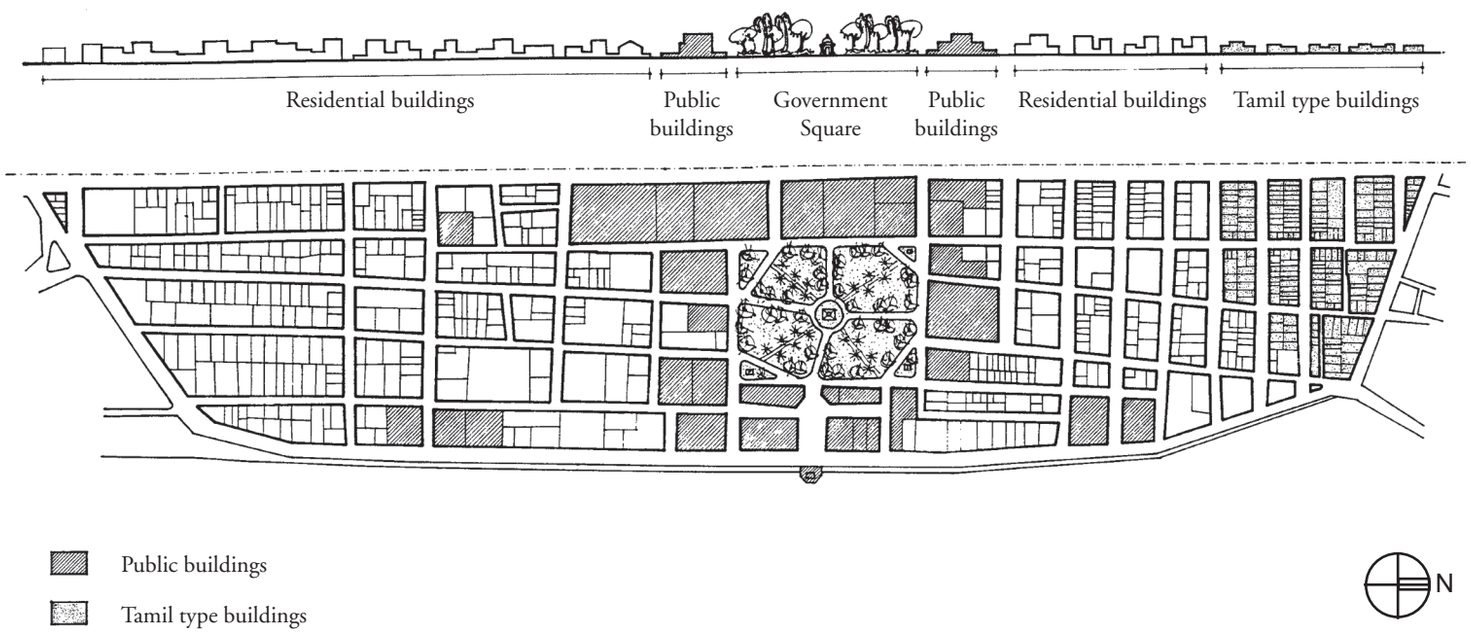
The avenue along the beach was also reserved for important buildings like the Customs House, Tribunal, Court and others. The Grand Canal separates the French and Tamil towns and originally there had been only two bridges across this canal. On the northern side of the town there is a settlement of low-rise Tamil style buildings probably meant for the local employees closely associated with the then French Government.

In the French quarter the buildings are of two main categories – public and residential:

Residential – form the major building stock, simple and varied accordingly with full or partial frontage and built wall to wall giving the typical street character.

Public – set amidst large plots with transparent enclosures, the plans came from France and were adapted to local conditions, usually grand two-storied structures with arcades in ground floor and colonnades in first floor.

The sizes of plots and buildings are comparatively larger making this part of the town a low density settlement.



Plan and Section of the French Town

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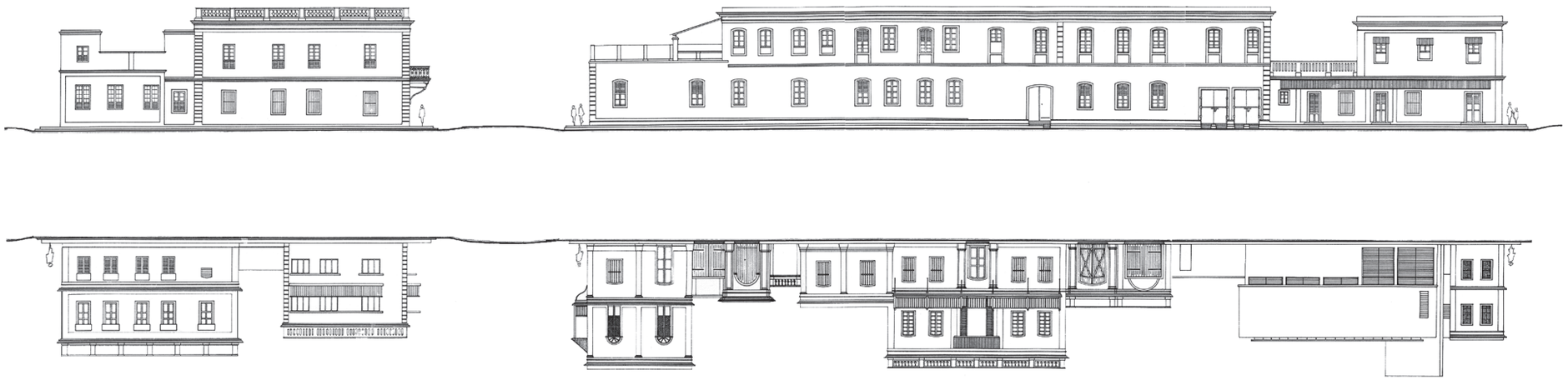
2.1.2 Streetscapes of the French Town

The streets are usually characterized by continuous wall to wall construction, full or partial street frontage, high garden walls, elaborate gateways, and solid walls divided into smaller panels by the use of verticals (pilasters) and horizontals (cornices). These street façades are usually plain and austere, enhancing the effect of the straight and perpendicular grid plan of the town. The exterior wall panels feature flat or segmental arched windows with bands and louvred wooden shutters. In the case of two-storied buildings wooden balconies supported on wrought iron brackets are common. The building composition is completed by a continuous parapet usually decorated with loopholes or terra-cotta pot balusters, or curved. In the case of important buildings decorative features and end ornaments are commonly used.

2.1.3 Design Aspects

Set within high compound walls and ornate gates, most French houses were built on a rather similar ground plan with variations in size, orientation and details. The plan is the local version of the "hôtel particulier", the typical mansion of the eighteenth century urban upper class in France. The main feature is the symmetrical plan and façade which usually opens on to the garden/court. The plan is marked by interconnected large rooms without corridors (a nineteenth century innovation). In front of the main façades colonnaded porticos were built to provide better protection from sun and rain as well as to provide a pleasant transition to the garden. A major change from the French model is the use of flat terraced roofs instead of the pitched roofs of the Parisian villas – an influence of local climate and construction techniques.



Street Elevation, rue de la Marine

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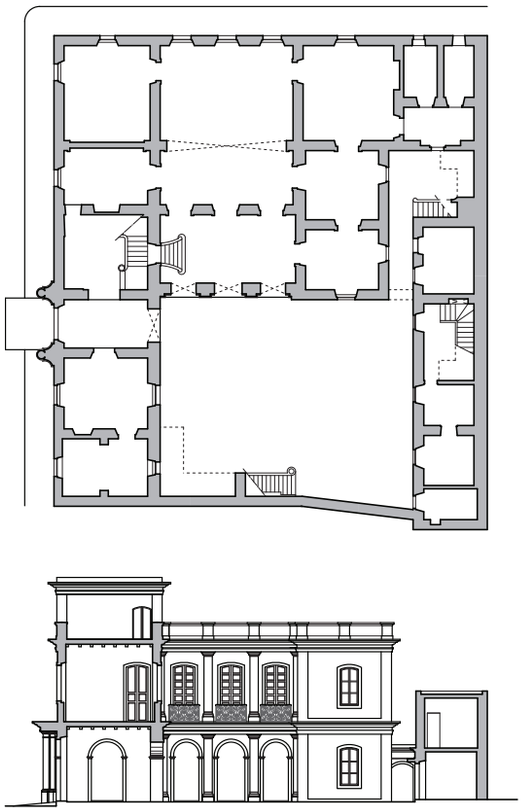
The private garden court forms the major space onto which the other building spaces open. In most cases the entrance court and private court are combined and the interior façades – arcades, colonnades – face the courtyard. The interiors are more ornate than the exterior and the rooms are marked by high ceilings, high arched doors and windows with louvred or wooden shutters and bands. Series of arched openings are usual in the case of long halls.

The ceilings are marked by heavy wooden beams and wooden joists supporting Madras terrace roofing, the huge wall area is sometimes divided into ornate panels by plaster decoration and a simple cornice runs below the ceiling beam; the floors are of plain cement or coloured with red oxide, occasionally with teak wood flooring. In the case of two-storied buildings an arched staircase connects the two floors.

View of a French streetscape



Plan and section of a residential French building, 19, rue Dumas

2.1.4 Climatic Considerations

Because of the high ceilings, voluminous rooms and large number of openings the response to climate is convincing. The openings are generous and doors and windows with operable louvres or cane work are well aligned, enhancing movement of breeze to beat the heat and humidity. The semi open colonnades and arcades provide a comfortable informal living space.

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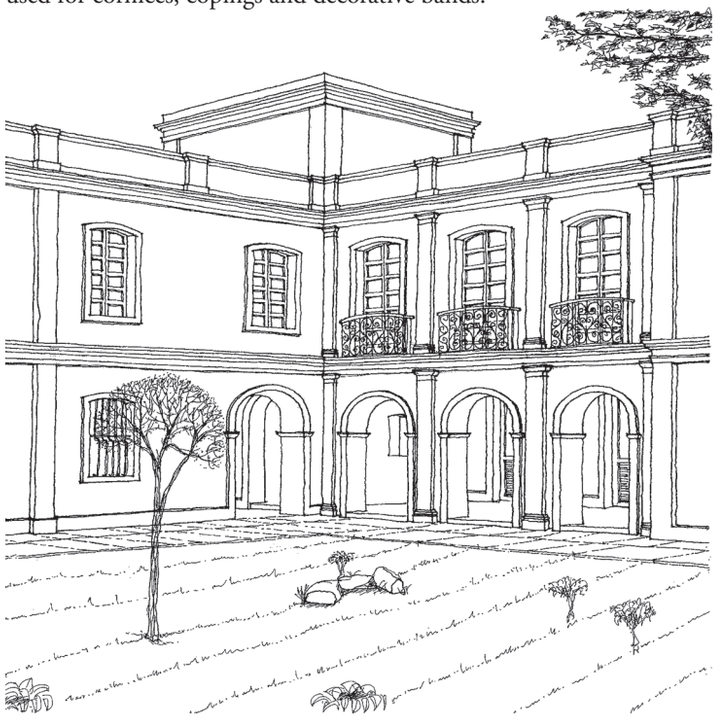
2.1.5 Structural System

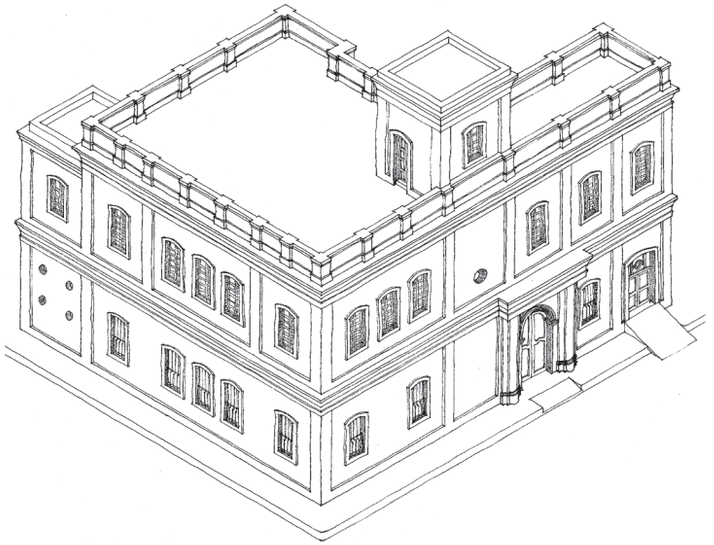
The buildings feature load bearing walls (usually two feet wide and fourteen feet high). These brick walls are packed with an infill of mud and brickbats. The first floor walls are lesser in width than those of the ground floor. Columns and arches are of brick masonry supporting heavy timber or steel beams with Madras terrace roofing (brick-on-edge masonry in lime mortar over closely spaced timber joists). Water proofing was done in the local lime terracing technique.

Balconies are linear (usually four feet deep) and rest on wooden joists over an edge beam held in place by wrought iron brackets. Occasionally the balconies rest on cornice platforms.

Mangalore tiled lean-to roofs (mostly on the first floors) with wooden rafters and edge beam that rests on capitals over square columns. In some cases the lean-to roof is supported by iron brackets. Brick corbelling is used for cornices, copings and decorative bands.



Interior view of 19, rue Dumas – large courtyard with arched inner façade & ornate balconies



Exterior view of 19, rue Dumas with full street frontage and ornate entrance

2.1.6 Construction Techniques

Burnt bricks in lime mortar was the main building material for all masonry works. The lime was made by burning sea shells from the local shores or limestone quarried from Tutipet. The mortar was made by grinding lime and sand together in a wet mortar mill. Plastering inside and outside was also with the same high quality lime. The timber used was usually Burmese teak.

For the architectural decoration works, the details were shaped in lime plaster applied on the brick masonry. Some elements like the pot balusters and fire-pots were prefabricated by potters following the design of the stone originals. Some of the external façades were finished in lime stucco

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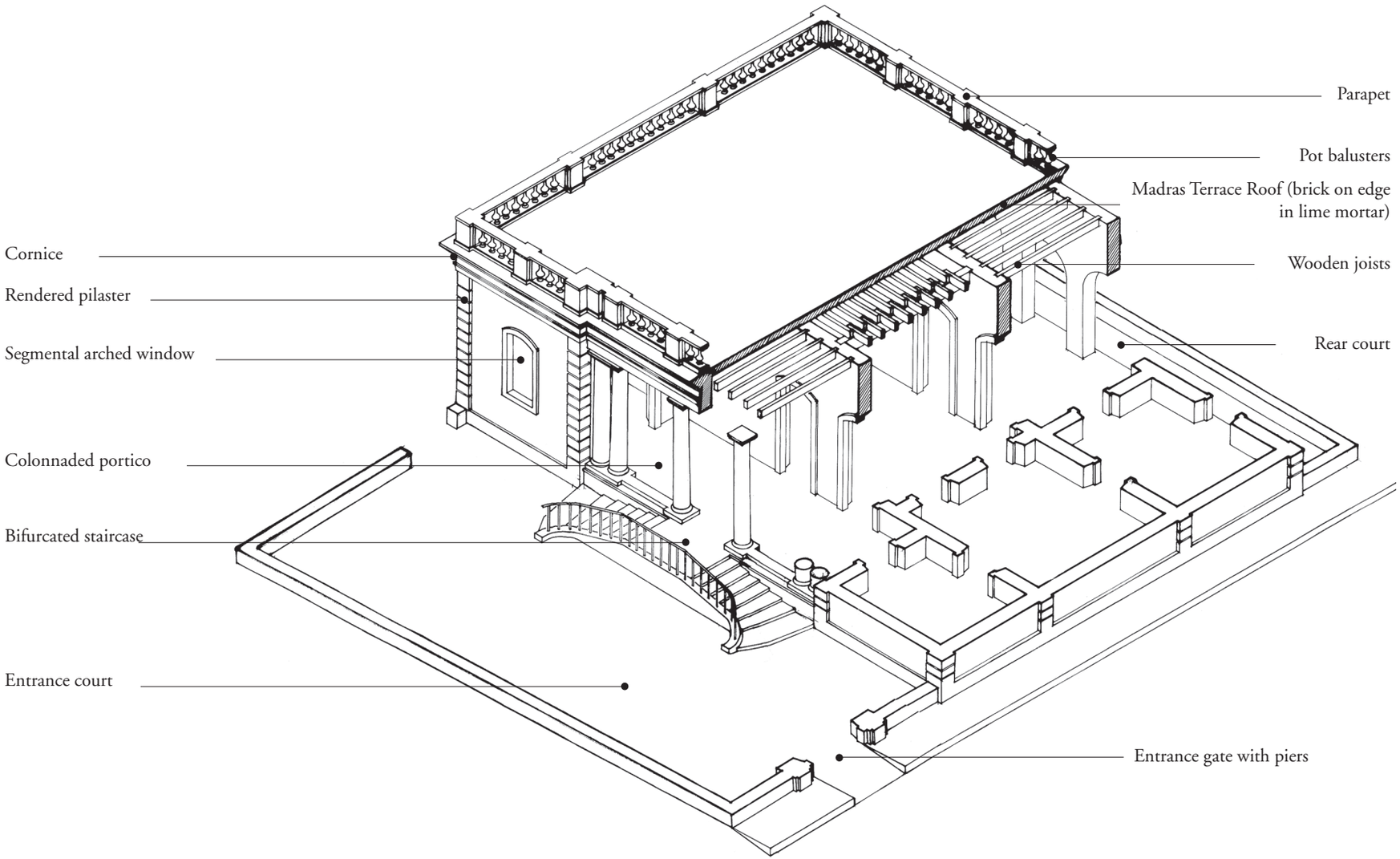
2.1.7 Features of a French House



Sectional isometry of 16, rue Dumas

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2.1.8 Features of typical French Façades

Façade of a residential building – 4, rue Law de Lauriston

Façade of a residential building – 17, rue Romain Rolland

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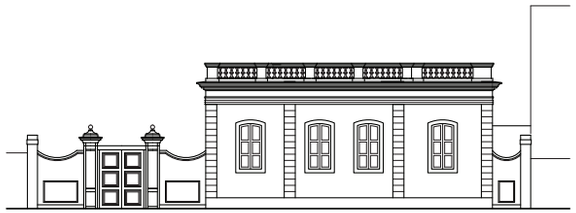
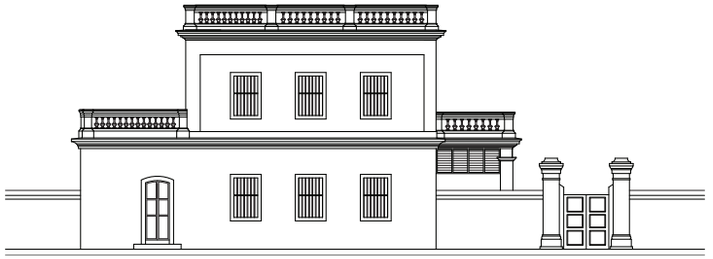
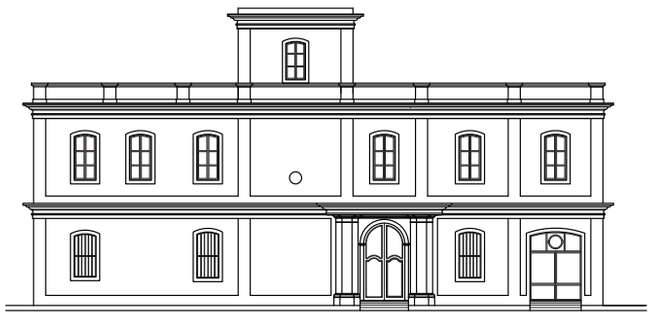
2.1.9 Typologies of French Buildings



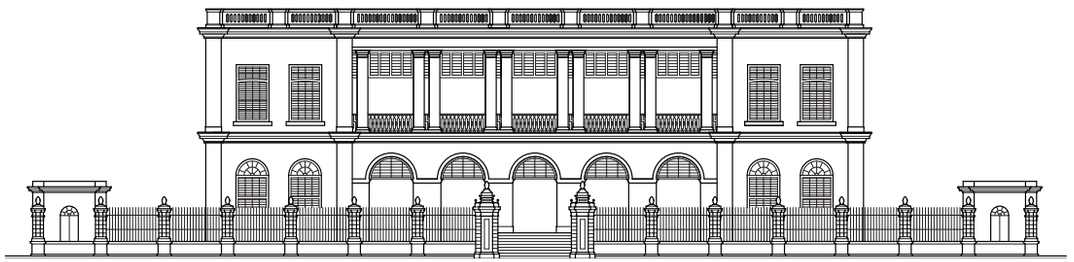
Single-storied residential building with partial street frontage
and the main façade facing the entrance court inside



Two-storied residential building with partial street frontage
and the main façade facing the garden court inside



Two-storied residential building with full street frontage
and a large garden courtyard inside



Public building set in the middle of a plot
with fenced enclosure on all four sides

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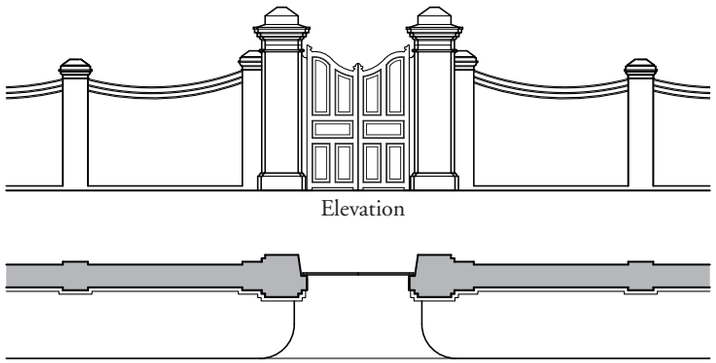
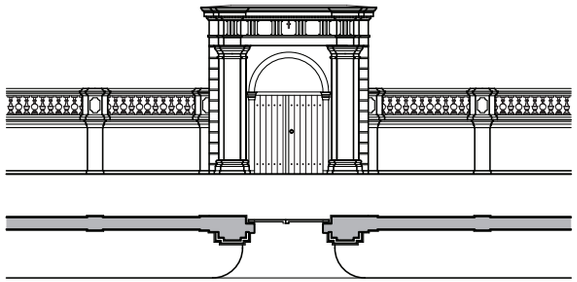
2.1.10 Compound Walls



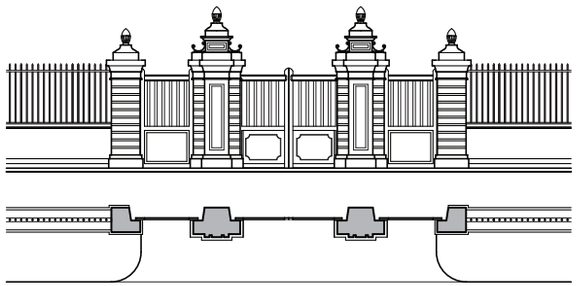
Details of a typical compound wall with curved panels and intermediate piers

The solid compound walls (residential/institutional buildings) feature sturdy gates and curved or rectangular panels (occasionally with a series of balusters on the upper portion) divided by intermediate piers, finished with inclined coping to drain the rain water.

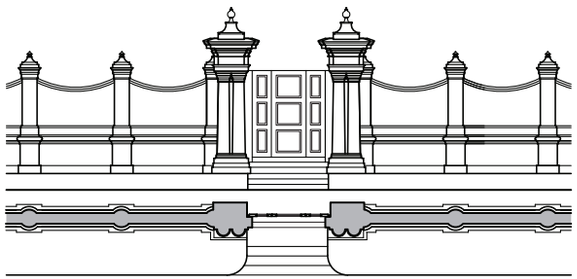
The transparent compound walls (usually of public buildings) feature wooden/metal fencing over low walls and free standing brick piers – octagonal or hexagonal (plain/rendered).



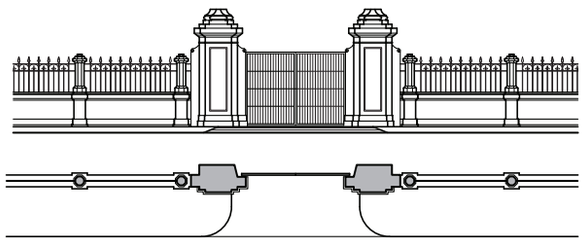
Compound wall with semicircular arched portal and pot balusters above rectangular panels



Transparent enclosure with wide gate, hexagonal piers and wooden fence



High compound wall with ornate gate, curved panels, circular intermediate piers and continuous ornamental bands



Compound wall of a public building with a sturdy gate and iron fence

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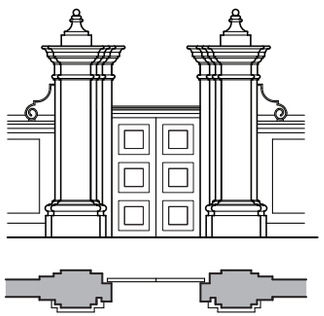
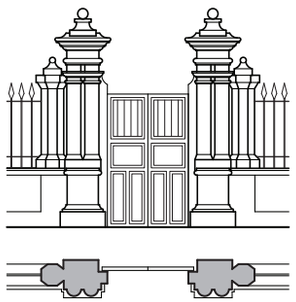
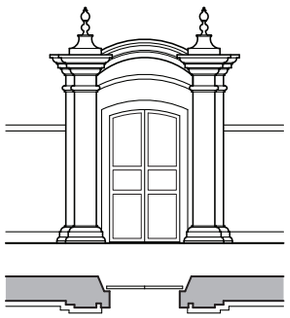


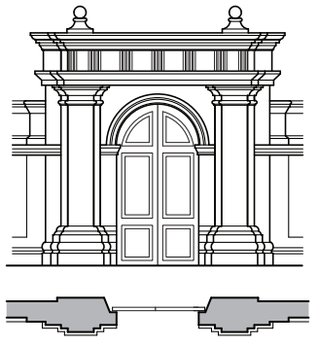
Grand piered gate



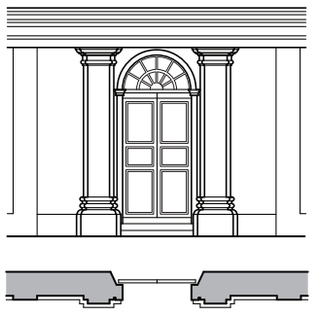
Twin pilastered gate



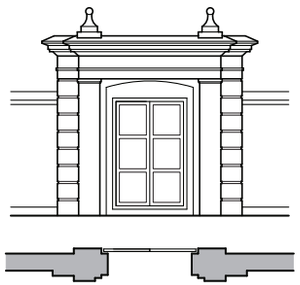
Segmental arched gate



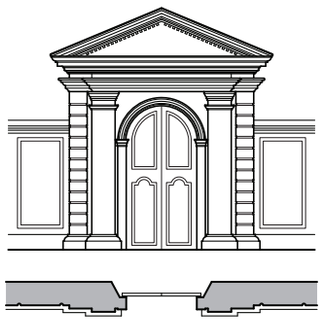
Semicircular arched gate with fire pots above



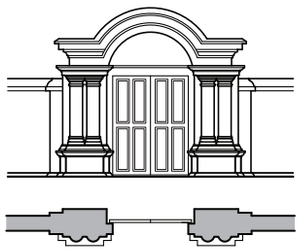
Arched entrance door



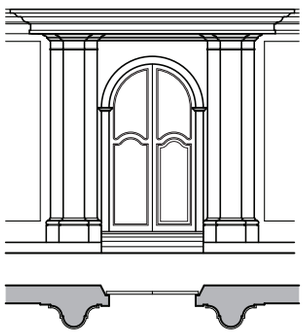
Gate with rendered pilasters



Arched gate with pediment

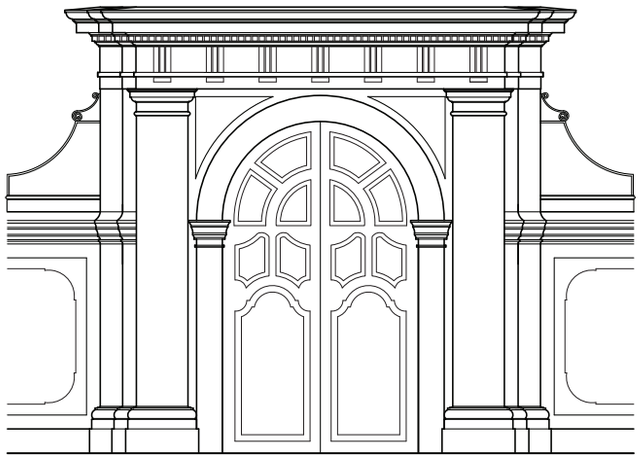


Arched gate with twin columns

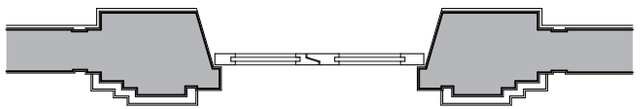


Gate with engaged columns

2.1.11 Entrance Gates



Elevation



Plan

Details of a well-detailed arched gateway

Entrance gates are the most unique feature of the French streetscape. In the case of partial frontage the gates are marked by heavy posts/portals complemented with a stretch of compound wall. In the case of full frontage the gates are marked by subtle pilaster projections or engaged columns along the main façade. The doors are of heavy woodwork with strong iron rivets and usually with posterns (small exit door). A remarkably wide range can be observed, from a simple piered gate to elaborately detailed arched portals.

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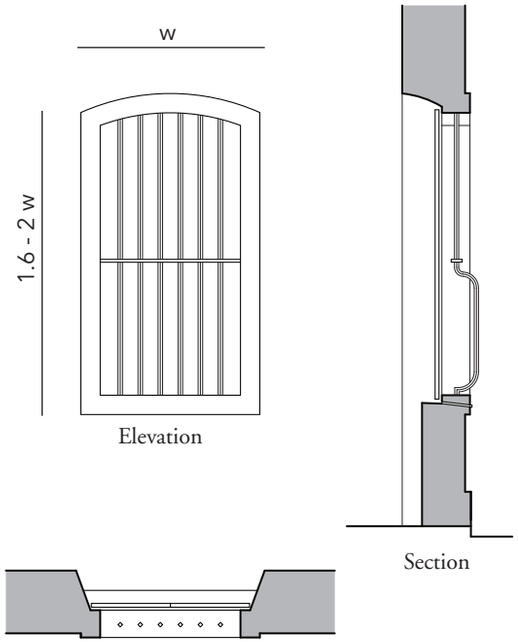
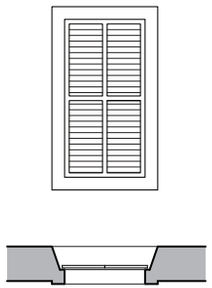
2.1.12 Windows

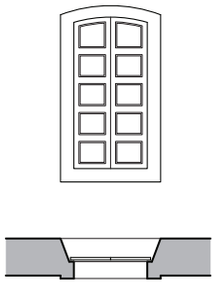


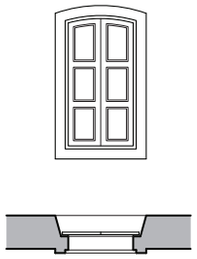
Details of a typical segmental arched window

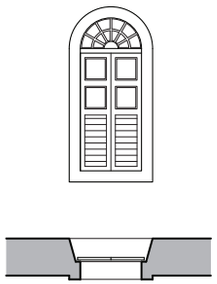
Windows are mostly high with flat, segmental or semicircular arches with bands (mostly painted white), wooden shutters (with louvres or glass panes) and strong wrought iron bars bent outward in the lower half below a horizontal bar to provide a secure street view from inside. The window jambs are usually splayed inward with a masonry rebate.

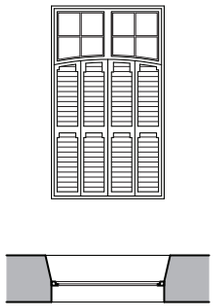
Lintels are made of brick arches. In some cases the blind semicircular arches are detailed with plaster decorations. Frames are usually avoided – shutters are fixed with hinges straight from the wall and locked with brass or wrought iron bolts.

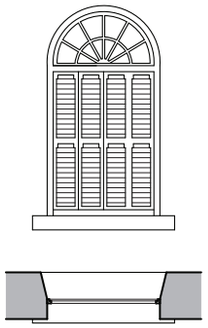

Flat arched window

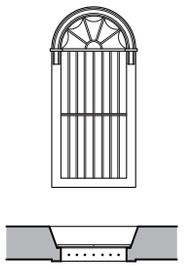

Segmental arched window

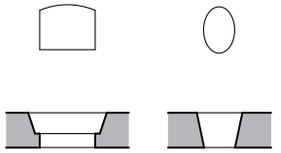

Window with inner band lip

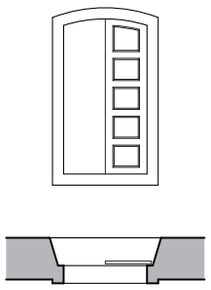

Semicircular arched window

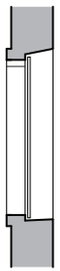

Wide flat arched window

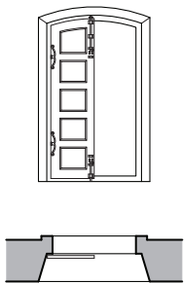

Wide semicircular arched window


Ornamental semicircular arched window

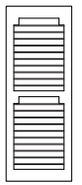

Typical smaller openings (ventilators)

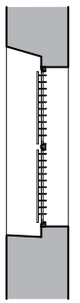

Window and shutter from outside


Section


Window and shutter from inside

Section (louvres closed)


Elevation (wooden louvred shutter)


Section (louvres opened)

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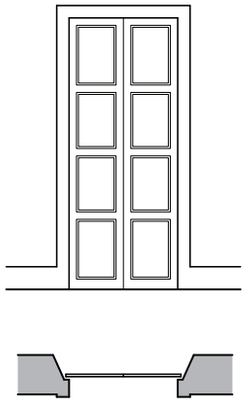
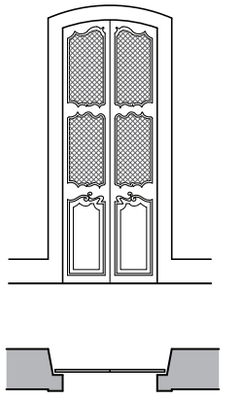
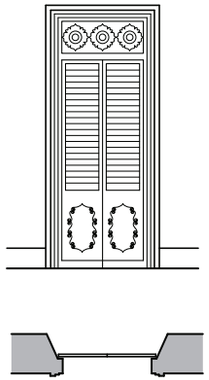


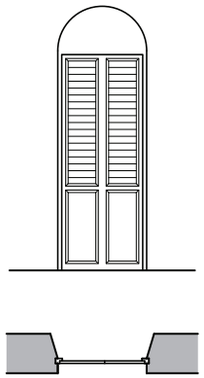
Flat arched door



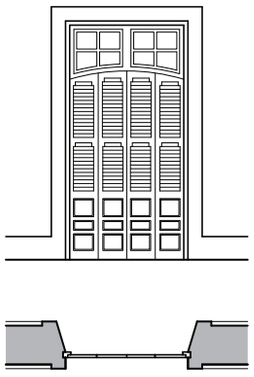
Segmental arched door with cane-work



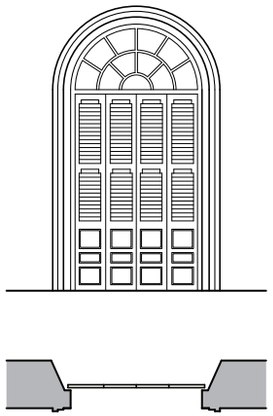
Ornamental door with louvred wooden shutter



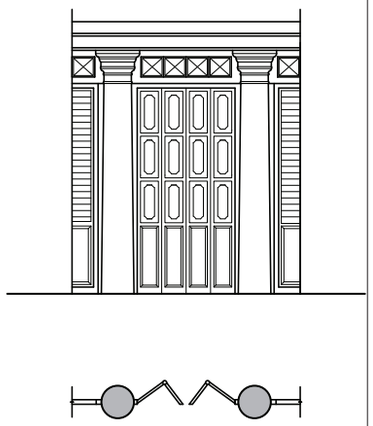
Semicircular arched door



Wide flat arched door with folding leaves

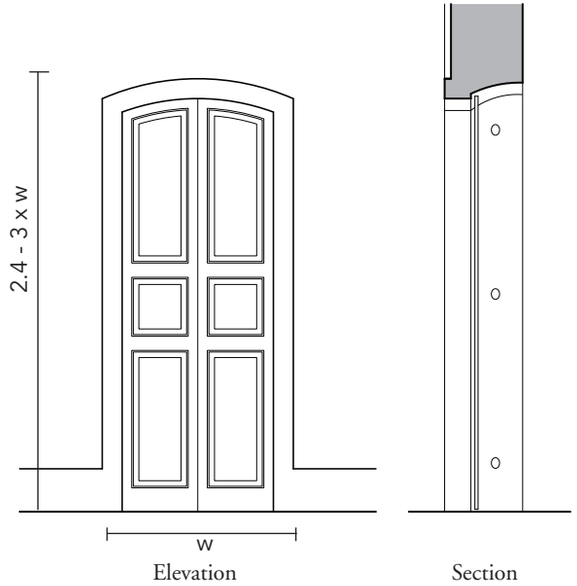


Wide semicircular arched door with folding leaves



A four-shuttered folding door

2.1.13 Doors



Details of a typical segmental arched door

Doors are similar to windows – featuring high and arched or flat with bands, splayed jambs with masonry rebate and louvred or panelled wooden leaves. Some doors have a second operable shutter with cane work that cuts off vision and ensures privacy while allowing enough light and ventilation. Doors are fixed by hinges directly from the wall and fastened by long brass or wrought iron bolts. Strong cross-bolts and in some cases holes in the jambs are provided to accommodate wooden cross bars for secure closing.

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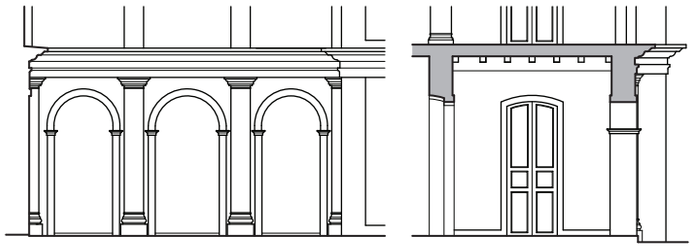
2.1.14 Arcades

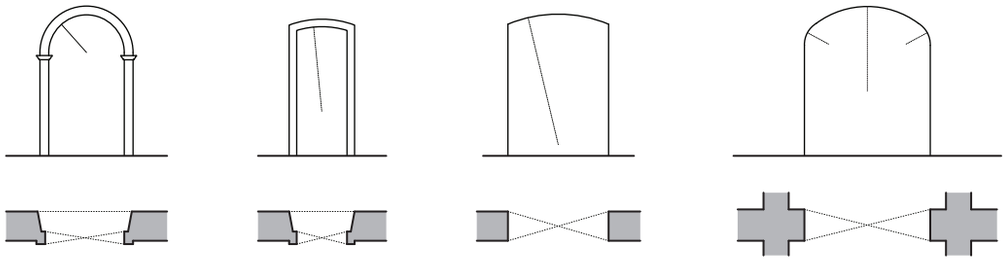


Elevation Section

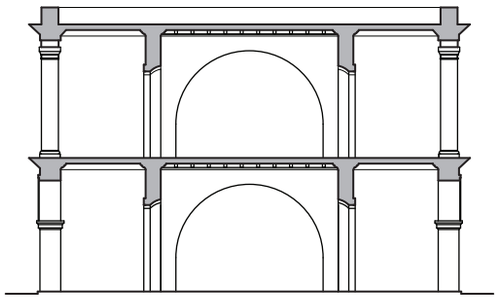
Plan

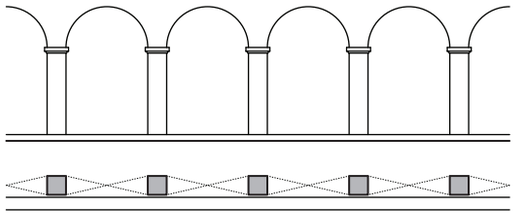
Details of a typical arcade

Series of arched openings in the ground floor are arranged overlooking the garden or entrance courtyard. They form a gentle transition space and provide a comfortable informal living area. Structural arches are used for long span interiors. In the end walls of the plot where there are no windows blind arches are common. Semicircular and segmental are the most common arch profiles; basket handle arches are also frequently used. Lintels are of brick-on-edge masonry and the arches are generally provided with bands; in the case of semicircular arches the springing line is defined by simple mouldings.

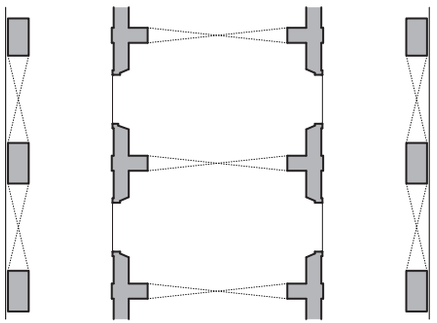


Semicircular arch Segmental arch Wide Segmental arch Basket handle arch

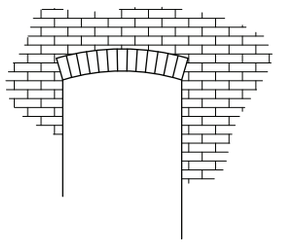




A simple semicircular arcade



Interior arcade of a public building



Construction detail of an arch

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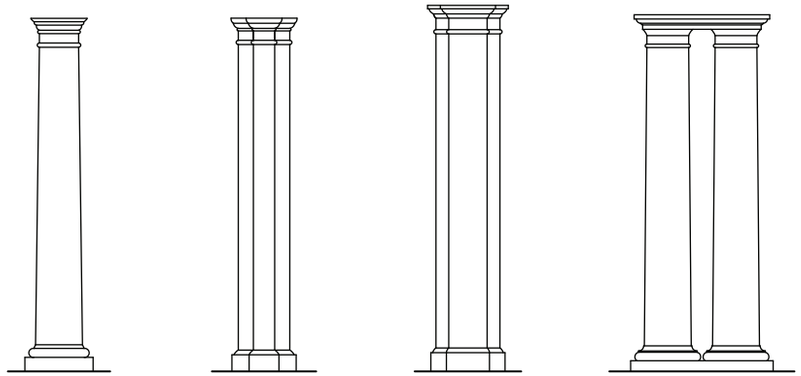
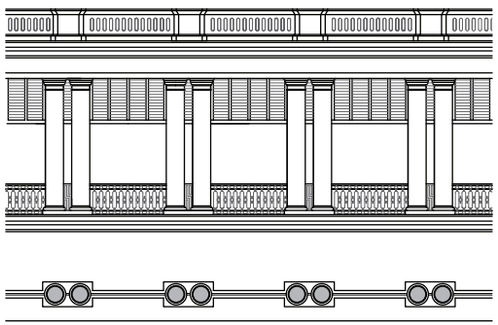
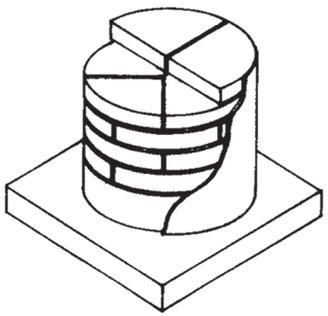


Circular column | Octagonal column | Square column | Circular twin column

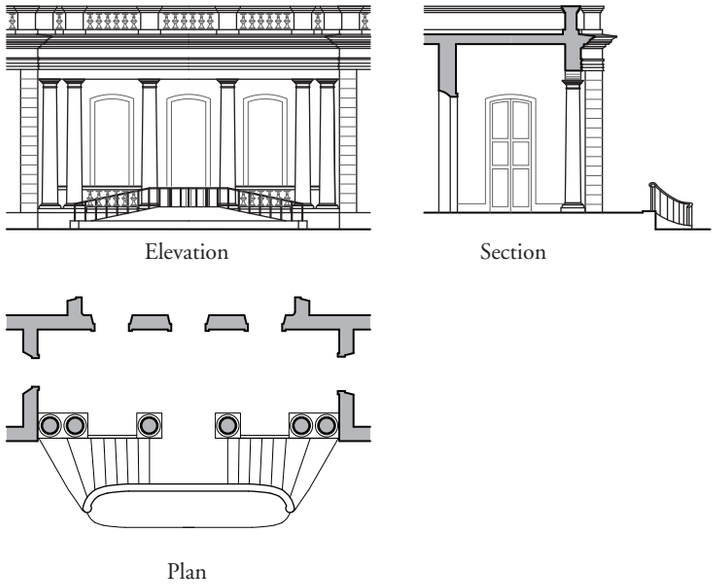


Twin columns in the first floor gallery of a public building



Construction detail of a circular column

2.1.15 Colonnades



Elevation | Section | Plan

Details of a typical colonnade

In case of single-storied structures colonnades are found in the porticos, and in case of double-storied structures, a series of columns in the first floor in alignment with the arcades below are common. Circular columns with a gentle conical profile (tapering towards the top) are the most common ones. Square, octagonal or square chamfered columns are also found. In all cases they are detailed with base and capital mouldings. Construction of circular columns is of quarter bricks in lime mortar over a granite base. The capitals of these columns carry heavy wooden beams that support the roof. Brick loopholed parapets or wrought iron railings are usual. Louvred shutters or stained glass panes are fixed between columns at beam level for better weather protection.

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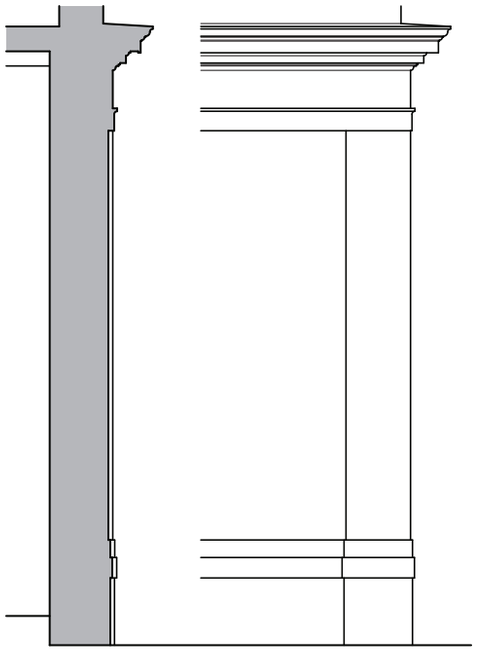
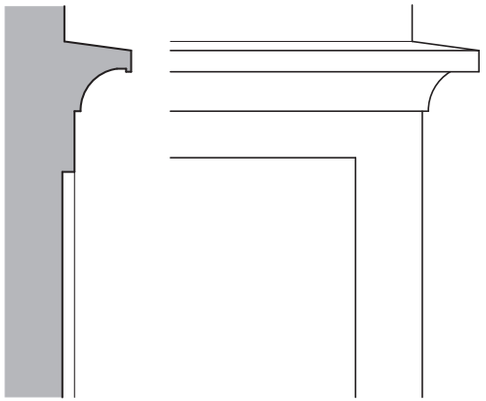
2.1.16 Pilasters and Cornices

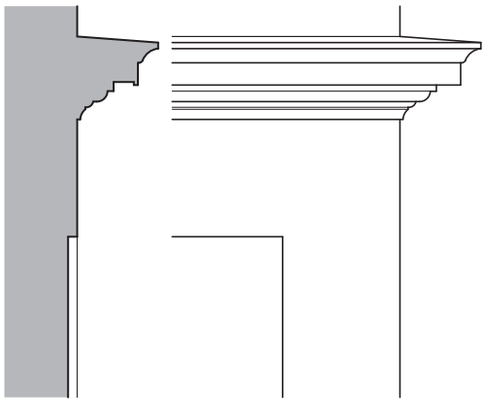


Detail of a typical pilaster and cornice

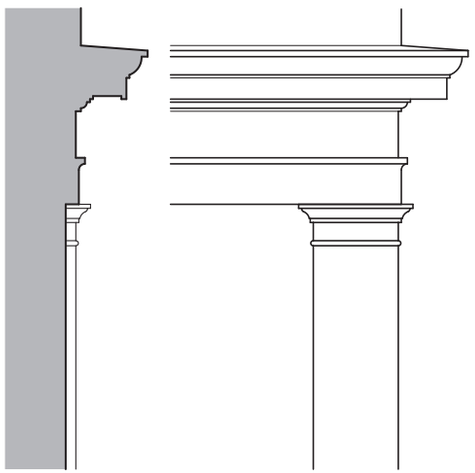
A combination of pilasters and cornices (verticals and horizontals) give the main structure of the exterior façade composition, providing a framework for other features like openings, parapets and balconies. Pilasters follow the cross wall lines in plan and are usually plain and sometimes rendered or detailed with base and capital mouldings. Cornices follow the floor divisions and are provided with adequate throating within curved or sloped mouldings to protect the wall surface below the roof from rain. A wide variety is found of which double cornices are most typical (featuring two mouldings – the lower one simple and the upper one ornate). They are made of corbelled flat bricks in lime mortar.



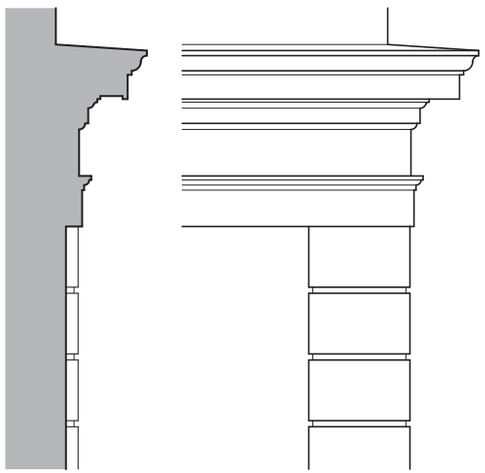
Simple curved cornice and plain pilaster



Single cornice with varied mouldings and plain pilaster



Double cornice with simple lower band and an ornate upper one; pilasters with capital mouldings



Elaborate double cornice with rendered pilasters

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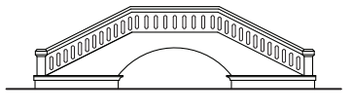
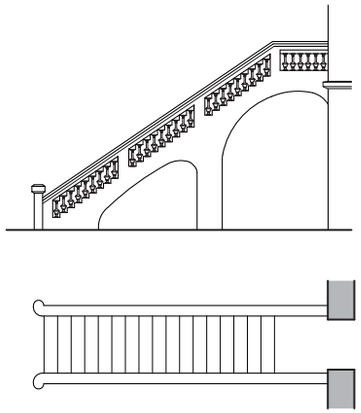
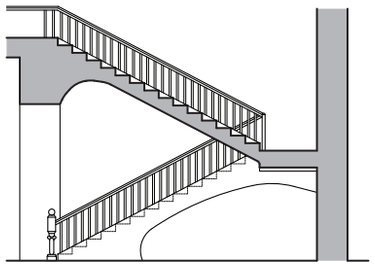
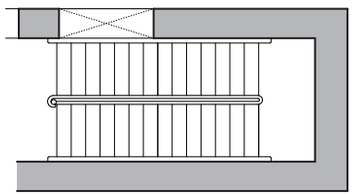


Bifurcated staircase of a high plinth

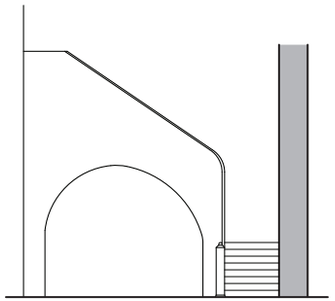


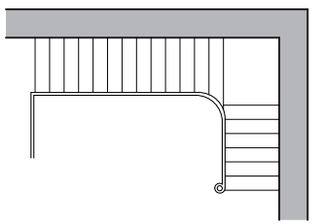
Straight flight open staircase





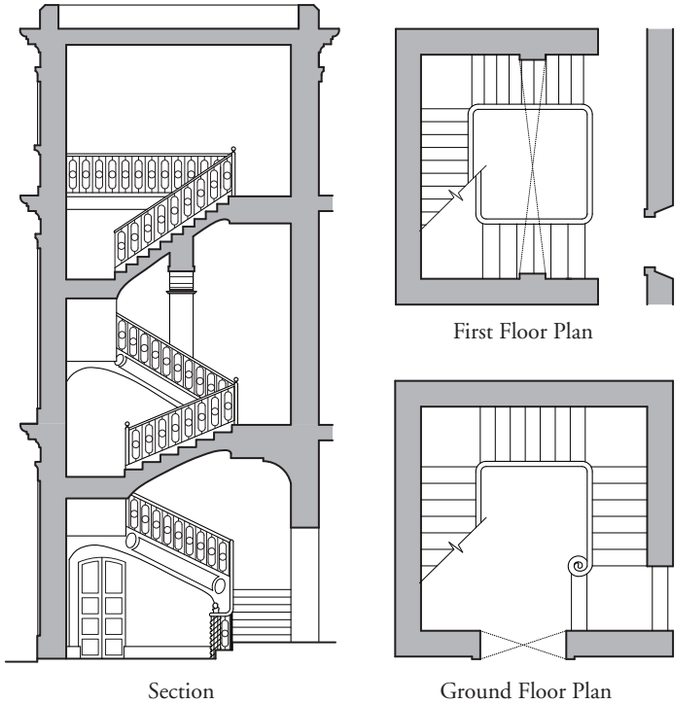
Dog-legged staircase





Quarter-turned open staircase

2.1.17 Staircases



Details of a stairwell

Staircases form an interesting part of the building. A wide variety is found ranging from simple straight flight open staircases to complex multiple flight covered stairwells. In all cases the soffit is arched and forms the main structural system. The perpendicular arched flights flow into each other and have plain brick handrails (with curved coping on top) or wooden railing over wrought iron balusters. Sometimes the staircase is framed by an arch. The headrooms (access to terrace) are compact following the slope of the last flight so that they do not disturb the street façade.

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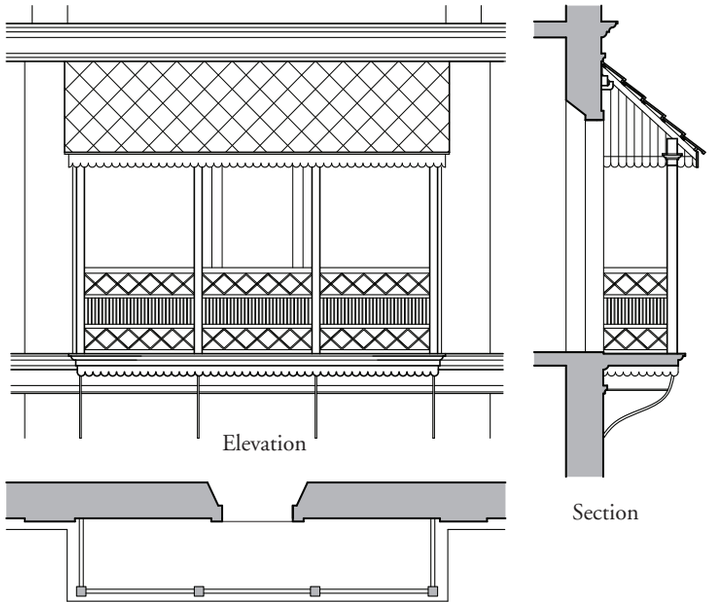
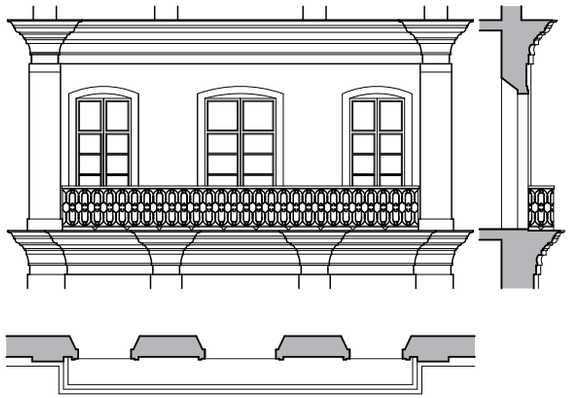
2.1.18 Balconies

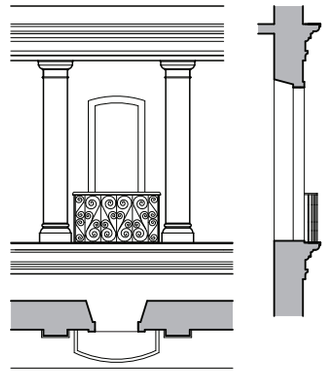


Details of a typical balcony on wrought iron brackets

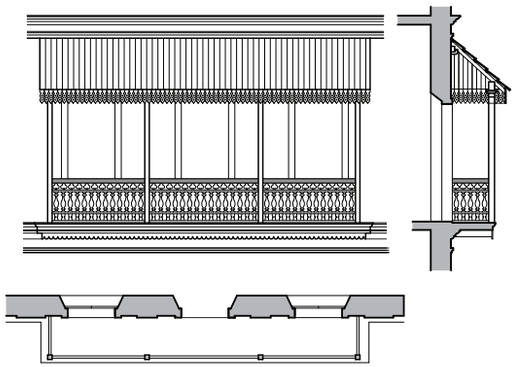
Framed symmetrically within the pilasters and cornices, balconies are usually 4 ft to 5 ft deep and are of projected Madras terrace construction. The cantilevered closely spaced timber joists rest on an edge-rafter held in position by wrought iron brackets. These brackets are in some cases provided with straight tie rods from the wall to prevent sagging. The soffit of the balcony is provided with a running eave-board nailed to the edge-rafter or sometimes the soffit is provided with brick and lime infill in small arched patterns. The balconies feature balusters of wrought iron or wooden lattice work. The roof is of Mangalore tiles over wooden structure or cement sheet shingles in diagonal pattern. Occasionally shallow balconies rest directly on the ground floor cornice platforms.



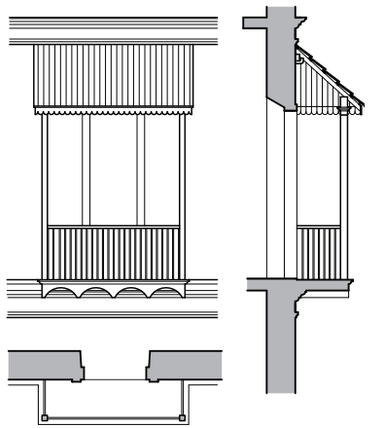
Balcony with ornamental wrought iron grill over an elaborate cornice platform



Interior balcony with wrought iron grill projected over a double cornice



Projected balcony with delicate wooden balusters, lean-to roof and eave-boards



Small balcony with jack-arch soffit

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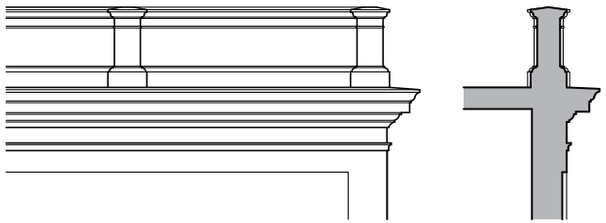
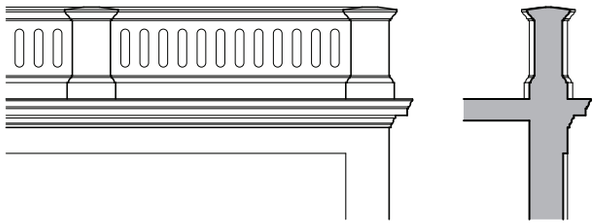
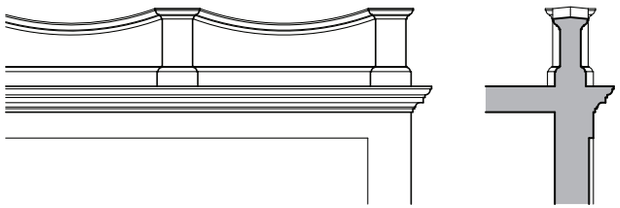
Plain parapet with bottom band and copings



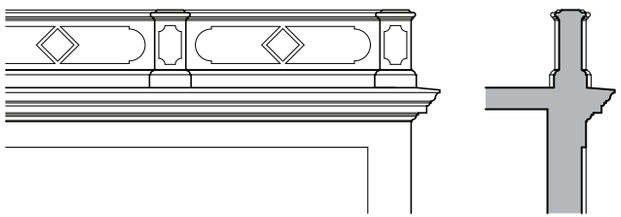
Parapet with brick loopholes and copings



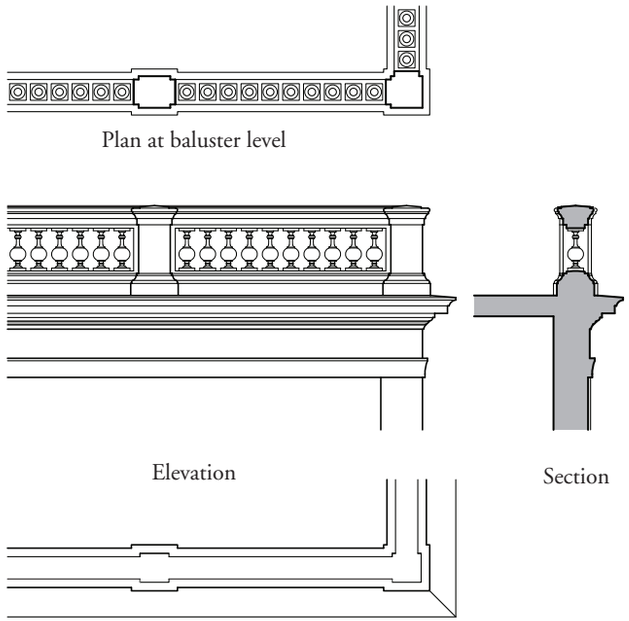
Parapet with curved panels and elaborate coping



Parapet with geometric patterns in plaster



2.1.19 Parapets



Detail of a typical parapet with pot balusters

Parapets are the most important horizontal feature defining the skyline of the town. The parapets generally rest on an elaborate cornice and the common types feature rectangular bays following the pilaster divisions of the wall panels (also sometimes subdivided) with terra-cotta pot balusters, brick loopholes (rectangular or curved), gentle curves, geometric designs in plaster reliefs or just plain. In all cases they are detailed with a continuous bottom band and inclined coping on the top to drain off rain water.

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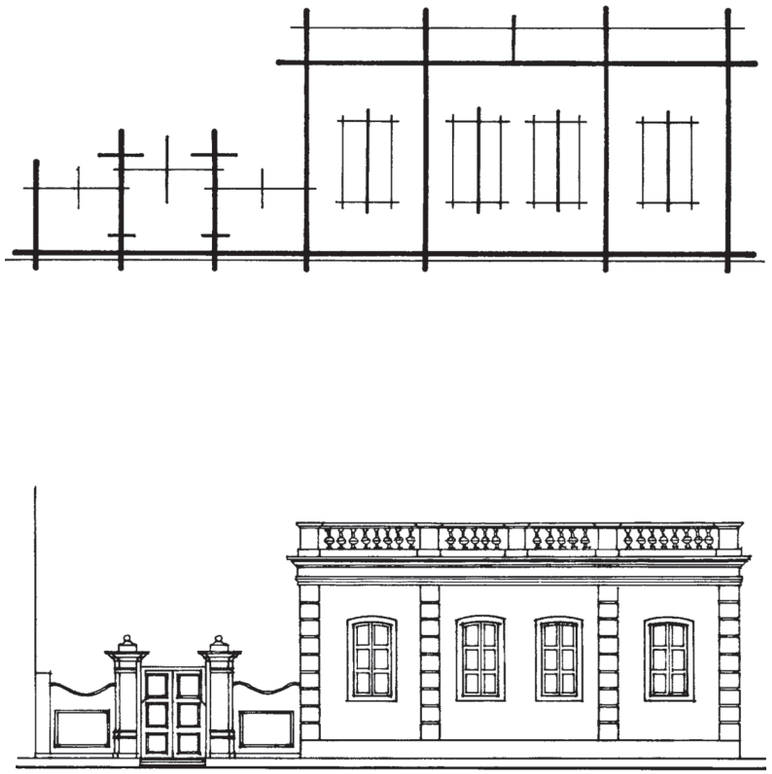
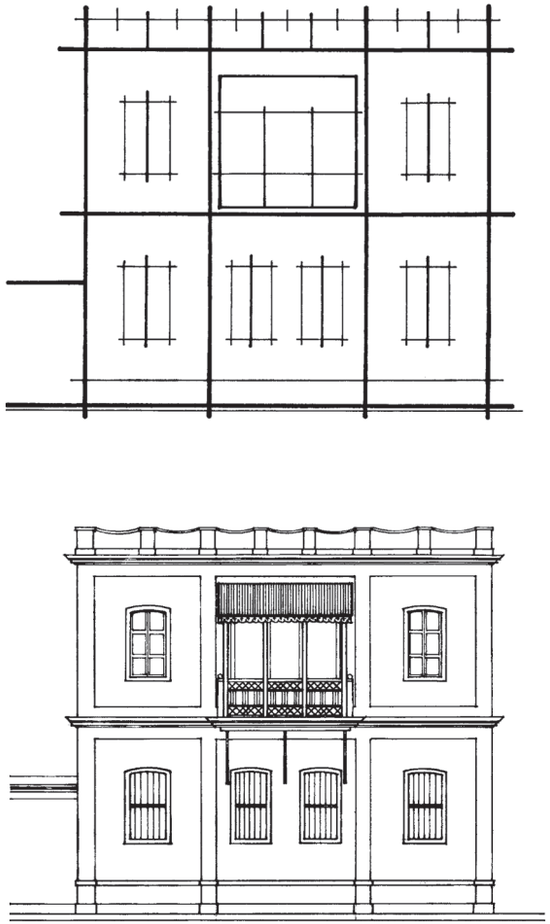
2.1.20 Building Composition



The skeleton and final façade composition of a simple single-storied building featuring compound wall, gate, rendered pilasters, double cornices, high arched windows and parapets with terra-cotta pot balusters



The skeleton and final façade composition of a typical two-storied building featuring symmetrical wall panels, pilasters, cornices, high arched windows, curved parapet and a wooden balcony over iron brackets

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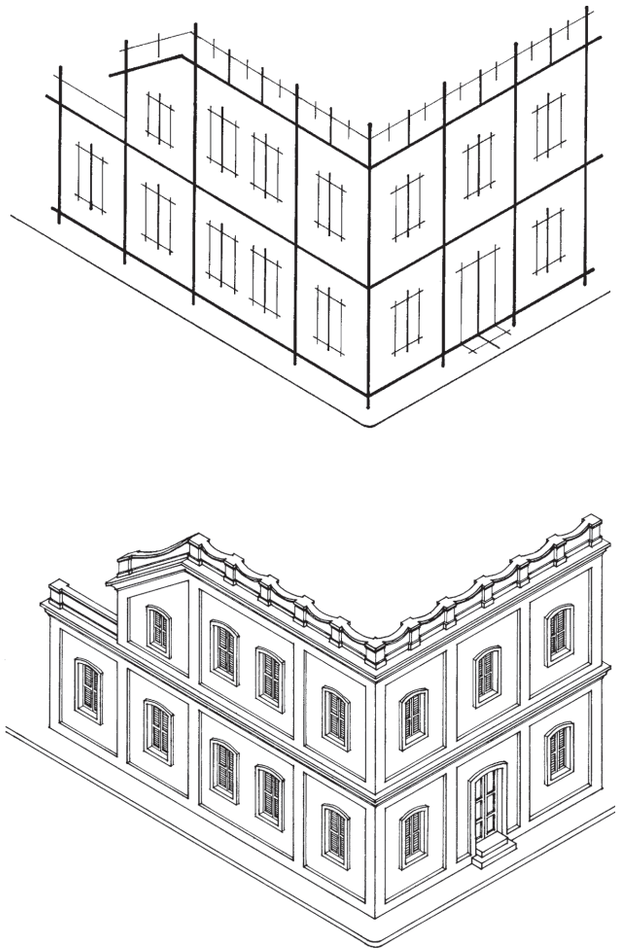
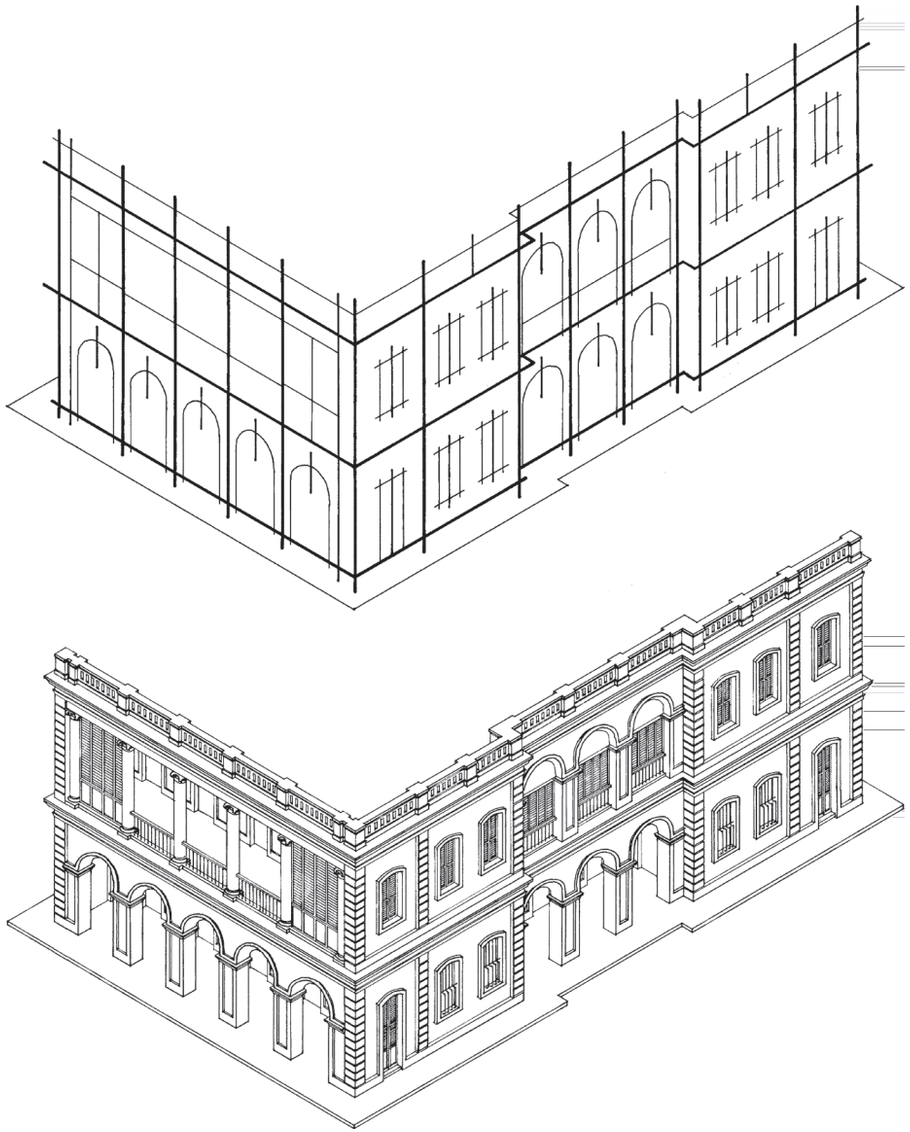


The skeleton and final façade composition of a two-storied corner building featuring framed entrance doors, pilasters, cornices, high arched windows, continuous curved parapet and partial open terrace in the first floor with tiled lean-to roof



The skeleton and final façade composition of a grand public building featuring arcades (with bands) in the ground floor, colonnades in the first floor, rendered pilasters, elaborate double cornices, high arched windows, wooden louvred partitions and a continuous loop-holed parapet

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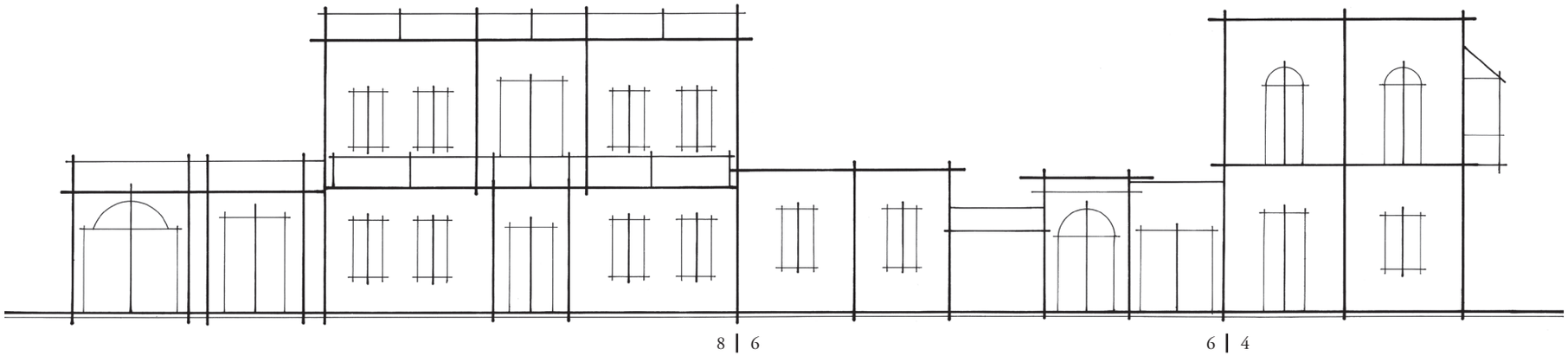
2.1.21 Street Composition



The skeleton and final façade composition of a streetscape – an integrated street composition in spite of the individual variation of the buildings (*Nos. 4, 6, 8 rue de la Marine*)

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2.2 Guidelines and Recommendations

2.2.1 Architectural Guidelines

2.2.2 Design Suggestions for New Buildings

2.2.3 Illustrated Examples:

- Streetscape
- Continuity and Composition
- Scale and Proportion
- Parking
- Compound Walls
- Entrances
- Openings
- Sunshades
- Colonnades/Columns
- Arcades/Arches
- Pilasters and Cornices
- Staircases
- Balconies
- Parapets
- Finishes
- Services and Signboards

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2.2.1 Architectural Guidelines

If one looks around at a number of new constructions that have come up in the old town in the name of "French Style", one can see that they are mostly misunderstood applications or a local interpretation of 'European baroque' features. These features are mostly decorative, exemplified by fluted columns starting over cantilevered brackets, concrete arches, pediments, elaborate cornices and synthetic façade cladding materials.

Pondicherry's 'French style' is very simple and decorations are restrained – mostly limited to gateways, parapets, copings and horizontal cornices. Otherwise the façade fenestration is very simple with symmetrically placed doors and windows within wall panels delineated by horizontal cornices and vertical pilasters. Windows are of standard proportions with bands around and balconies are of Madras terrace slab on wrought iron brackets. The shutters of doors and windows are of wood.

All this can be observed if one looks at the existing buildings in the town – the best "book" on architecture is the town itself (*see 2.0 Architectural Features*). The general form, scale, proportion and fenestration reflect a straightforward simplicity. So while designing new developments in the Precincts one can apply these basic patterns to make the buildings unobtrusive in their traditional surroundings. Here one should remember that the coping and cornice projections have the function of protecting wall surfaces from the rain.

2.2.2 Design Suggestions for New Buildings:

i) Construct and finish the building in traditional method – brickwork and plastering preferably in lime-cement mortar.

ii) Avoid placing bathrooms and staircases in the front (street façade) as these disrupt the basic façade composition.

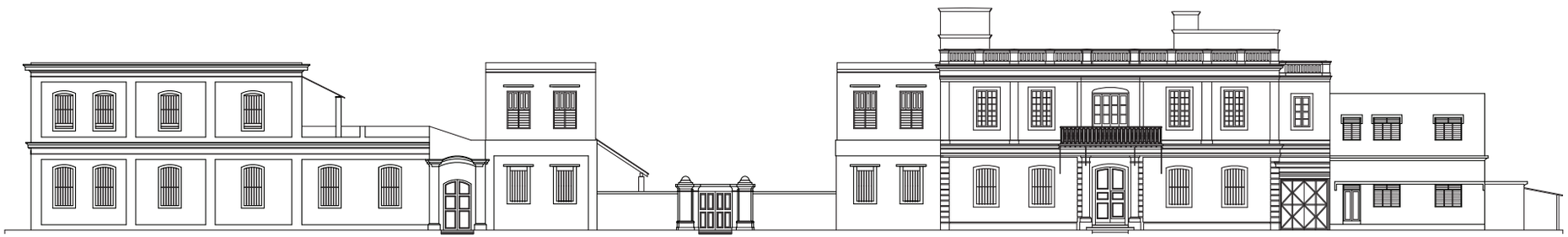
iii) Place doors and windows of right proportion symmetrically in wall panels framed by pilasters and cornices with bands.

iv) Use wood for doors and windows – where possible use old wooden doors and window; for sunshades use light-weight materials like bison board on wooden frames.

v) Finish the exterior façade in traditional finishes and colours (yellow, ochre, terra-cotta, red, grey & white) – do not clad façades with tiles, stones, metal etc..

vi) Generally use traditional patterns for window shades, balconies, gates, garage doors, etc. Where unavoidable modern materials like concrete can be used with care and sensitivity.

In the following pages a number of illustrated examples are given to explain the suggestions and application of above guidelines. Enclosed in the annexure are also some alternative façade designs.



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Streetscape

Recommended

A

Retaining and preserving the original floor plan features such as size, configuration, proportion and relationship of rooms/spaces. Extensions to be harmonious and in such a way that their addition or later removal does not affect the essential character of the building. New construction to match with the traditional plan features *(as in fig. A)* of the precinct.

Not Recommended

B

Radically changing the original floor plan/interior spaces, demolishing the principal walls or damaging the quality and relationship of spaces to be avoided. Extensions disturbing the originality of the building to be avoided. New constructions that defy the context of the traditional townscape of the precinct *(as in fig. B)* to be avoided.

Continuity and Composition

A

An uninterrupted building line and continuous wall to wall construction *(as in fig. A)* are typical for the French Town. All building activities should respect the building line and composition of individual façades should complement the overall streetscape establishing a part-to-whole relationship of the built form.

B

Wide setbacks, staggered/angular wall plans, deep offsets or cantilevers causing discontinuity in the building line to be avoided. Insensitive inserts varying drastically in composition with the neighbouring heritage buildings *(as in fig. B)* and disrupting the continuity of the streetscape to be avoided.

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Scale and Proportion

Recommended *Not Recommended*

A

B

C
D

A significant feature of the French Town is its grand scale (just as the main feature of Tamil Town is its intimate scale). The original scale and proportion of the old buildings *(as in figs. A and B)* should be maintained. New constructions should comply with the generous scale and proportions characteristic of the precinct. The horizontal floor divisions and vertical bay divisions to be adopted based on the site context.

Out-of-scale features like slender dummy columns *(fig. C)*, fanciful screen pediments *(as in fig. D)* or squatted proportions of openings (because of low ceiling heights) or absence of horizontal/vertical divisions to be avoided. Scale and proportions intimidating the abutting heritage building or considerably varying with the overall street context of the precinct to be avoided.

Parking

A
B

Parking space/garage to be designed without damaging the continuity and character of the street façade. In the case of old buildings the existing garage for hand-rickshaws can be converted into parking spaces *(fig. A)*.

In order to accommodate parking, radically altering/damaging the existing old façade or new plans breaking the continuity of the streetscape by deeply puncturing or offsetting the main façade *(fig. B)* to be avoided.

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Compound Walls

Recommended

A

In the case of providing parking space or front setback the compound walls and gates become the prominent street characters. Original compound wall *(as in fig. A)* should be preserved and new compound walls shall be sensitively designed to complement the streetscape.

Not Recommended

B

Disfiguring the original compound walls and gates to be avoided. New designs with fancifully detailed piers, grilles or gates in materials and finishes alien to the existing compound walls characteristic of the precinct (*fig. B*) to be avoided.

Entrances

A

In the case of full frontage, the entrance door becomes an important feature of the street. Original entrances (*as in fig. A*) should be preserved. New entrances to be designed with bands, pilaster frames and wooden doors complemented by sensitively set door number/name plaques.

B

Damaging or permanently filling up the original entrances to be avoided. New entrances with odd opening profiles and giant cantilevers *(fig. B)* contrasting strongly with the typical entrance characteristic of the precinct to be avoided.

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Openings

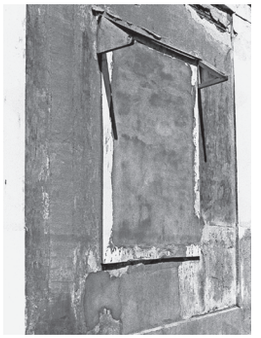
Recommended *Not Recommended*

A

B

The symmetrical schedule, including the size, position and number of openings to be retained and preserved. The characteristic proportions with typical bands, louvred shutters *(fig. A)* and iron grills to be adopted. Inevitable filling up should be sensitively done retaining the traces of the opening *(fig. B)*.

C



D

Bricking up original windows *(figs. C and D)* or altering the schedule by removing old or cutting in new openings to be avoided. New openings (with odd shapes/proportions, conspicuous shutters or obtrusive sun shades) drastically varying with the character of the existing opening to be avoided.

Sunshades

A

Sunshades to be incorporated without damaging the opening profile. Materials such as bison board *(fig. A)* or light weight concrete should be adopted and set within the band (where an inner lipping would be helpful) without disturbing the window physically or visually.

B

Disfiguring or damaging the existing opening profile and inserting heavy lintel slabs or conspicuous concrete sunshades *(fig. B)* to be avoided. Any kind of addition or alteration disturbing the original character of the opening to be avoided.

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Colonnades/Columns

Recommended *Not Recommended*

A

The original colonnades/columns to be retained and preserved. In the case of filling them up for better functional purposes temporary materials like wooden louvres or light weight partition boards *(as in fig. A, first floor)* should be used in such a way that their addition or later removal does not damage the character of the features visually or structurally.

B

Removing or disfiguring the colonnades/columns (or any part such as their bands, spring mouldings or masonry) to be avoided. Filling them up with brick *(as in fig. B, first floor)* or other permanent materials (thereby concealing traces of their presence and causing structural or visual damage) should be avoided.

Arcades/Arches

A

The original arcades/arches to be retained and preserved *(as in fig. A, ground floor)*. In the case of filling them up for better functional purposes traditional/temporary materials (wooden louvres/light weight partition boards) should be used in such a way that their addition or removal does not damage the character of the features structurally or visually.

B

Removing or disfiguring the arcades/arches (or any part such as their bands, spring mouldings or masonry) to be avoided. Filling them up with brick *(as in fig. B, ground floor)* or other permanent materials (thereby concealing traces of their presence and causing structural or visual damage) should be avoided.

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Pilasters & Cornices

Recommended

A

Existing pilasters and cornices to be retained and preserved *(fig. A)*. In the case of new constructions the exterior wall shall be divided into panels by well-proportioned pilasters (verticals) and cornices (horizontals) based on the overall street context.

Not Recommended

B

An infill building without well proportioned pilasters and cornices leading to inanimate façades to be avoided. Very thin pilasters and cornices *(fig. B)* or haphazard wall panels with inconsistent rhythm of verticals and horizontals to be avoided.

Staircases

A

© IFP

B

Original staircases *(as in figs. A and B)* including features like arched soffit, handrails, balusters, nosings to be preserved. Staircases are preferred to be in the front to facilitate independent access to the upper floors in which case the façade should be sensitively treated because of the displaced openings and head room. Design of the staircase should reflect the traditional arched staircase of the precinct.

C

D

Disfiguring an original staircase by filling up the arched soffit, removing features like handrails, balusters, nosings to be avoided. New staircases with inappropriate openings/high head room damaging the composition of the street façade to be avoided. Street-side staircases drastically varying with the traditional arched staircase of the precinct *(figs. C and D)* to be avoided.

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Balconies

Recommended

A

© EFEO/FL

The original balconies including their wooden/iron railings, lean-to roofs with wooden posts, eave-boards and wrought iron brackets to be retained and preserved *(fig. A)*. New balconies to reflect the characters of the traditional balconies and to be sensitively designed so as to complement the streetscape.

Not Recommended

B

Damaging/removing the original balconies or replacing them with new insensitive balconies *(fig. B)* when minor repair would have been appropriate. New balconies (with conspicuous concrete/iron-pipe railings, heavy sunshades) drastically varying in character with the traditional balconies to be avoided.

Parapets

A

Most important character defining the skyline. Original parapets including their vertical divisions, base and coping details, terra-cotta balusters/brick loopholes to be retained and preserved *(fig. A)*. New parapets to be in harmony with the character of the precinct complementing the skyline of the townscape.

B

Disfiguring the original parapets by removing the terra-cotta balusters *(fig. B)*, filling the loopholes or replacing them with inappropriate materials to be avoided. New designs (with steel/iron pipe railings, brick/concrete jalis or fanciful balusters) contrasting with the characteristic skyline of the townscape to be avoided.

Ville Française Flatnd.indd 42 07/04/10 11:17 AM

Finishes

Recommended

A

Original finish to be identified and preserved *(fig. A)*. All new façades to be finished in the traditional colours (white, cream, yellow ochre, terra-cotta red or light grey) and plaster (lime, lime-cement or cement). Roof tiles shall be Mangalore or half-round country tiles and shall be left in the natural finish.

Not Recommended

B

Stripping the original finish or replacing it with facing/cladding materials such as ceramic tiles, stone or synthetic plasters *(fig. B)*, which are in disharmony with the traditional materials to be avoided. Colour schemes drastically contrasting with the typical colour schemes of the precinct to be avoided.

Services and Signboards

A

B

Drain pipes, water tanks, air-conditioning units etc. to be concealed *(fig. A)* and openings of toilets or staircases when placed along the street-side should be carefully designed so as not to disturb the overall façade. Signboards and name-plates to be sensitively fixed *(fig. B)*.

C

D

Unsightly exposition of features like drain pipes, air-conditioning units, septic tank vents, water tanks *(fig. C)* to be avoided. Haphazard display of sign boards/advertisements *(fig. D)* concealing parts of the façade thereby disfiguring the visual quality of the street stretch to be avoided.

Ville Française Flatnd.indd 43 07/04/10 11:17 AM

Ville Française Flatnd.indd 44 07/04/10 11:18 AM

2.3 Case Studies

2.3.1 Addition – Horizontal
2.3.2 Addition – Vertical
2.3.3 Alteration
2.3.4 Adaptive Re-use
2.3.5 New Construction

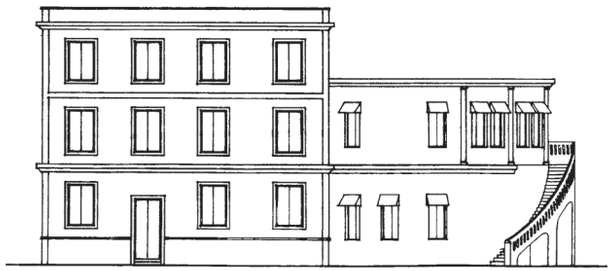
Ville Française Flatnd.indd 46 07/04/10 11:18 AM

2.3 Case Studies

2.3.1 Case Study: Addition – Horizontal

Acceptable Example

24, Goubert Avenue – Custom House & Central Excise,
Heritage Grade II A building with façades visible on all four sides



South Elevation

The Central Excise building was built as an annexe behind the old circular Customs House building. The exterior of this annexe was designed to be in character with the precinct by adopting standard division of pilasters and cornices and openings with typical bands and proportions (1:1.6). The cornice mouldings were matched with that of the existing building and all four sides were given a uniform façade treatment.

View from East

Insensitive Example

49, Saint Louis - Former Law Building (Heritage Grade II A)
and Romain Rolland Library

West Elevation

This stately eighteenth century building formerly served as the Law Building (now it is the Museum of Pondicherry). Symmetrical in plan with an ornate front façade the building was set inside a large plot overlooking the government square. Unfortunately in 1974, the new three-storied box-type building of the Romain Rolland library was built in front of it. Besides the loss of the valuable garden area, the visibility of the elegant front façade is also totally lost.

View from West

Ville Française Flatnd.indd 47 07/04/10 11:18 AM

2.3.2 Case Study: Addition – Vertical

Acceptable Example

2, Dumas Street – Superintendent of Police, Grade II A corner building

North Elevation

An interesting government complex built in the 1880s, the building featured an austere single-storied façade on the park side. This block underwent additions during the 1940s on the eastern and western ends. The new additions followed the ground floor wall-layout including features like pilaster divisions and window alignments, and the whole first floor has been sensitively matched with the ground floor.

View showing the later first floor addition

Insensitive Example

2, rue Saint-Martin – Ashram Residence, Grade II B corner building

East Elevation

The old ground floor featured exterior blind arcades, high arched windows, cornices and rendered pilasters and an entrance gate. The later first floor addition with wide openings and bare wall surface devoid of any pilaster or cornice varies drastically with the existing ground floor. Unsightly accretions in brick and asbestos sheet (on the southern terrace) besides exposed storm-water pipes and conspicuous window shutters add to the façade damage.

View showing the later first floor addition

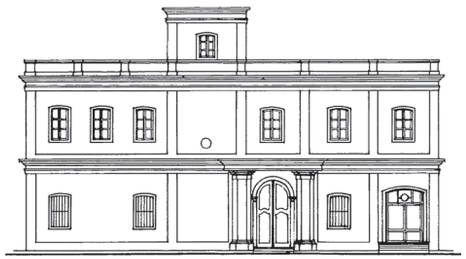
Ville Française Flatnd.indd 48 07/04/10 11:18 AM

2.3.3 Case Study: Alteration

Acceptable Example

19, Dumas street – EFEO, Heritage Grade II A corner building

West elevation before alteration



West elevation after alteration

The old residential villa was bought and converted into an institutional office following which alterations were made. The terraced roof was dismantled and RCC slabs were cast. In addition several decayed timber beams and joists were replaced. Minor alterations like walling up certain doors (for better utility of space) and opening up the last room for car parking (which was provided with a wide segmental arched door with band) were done. The balcony – later addition – was removed. Renovation was carried out and the traditional dual colour scheme – yellow ochre for the wall panels and white for pilaster and cornices – was adopted.

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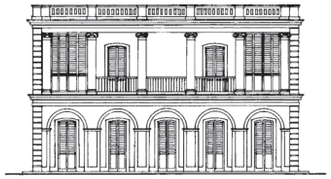
View before alteration

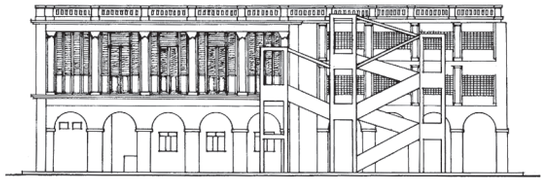
View after alteration

Insensitive Example

11, Dumas street – Pondicherry Court, Heritage Grade II A building



West elevation before alteration



West elevation after alteration

The old building featured arcaded ground floor, colonnaded first floor, elaborate cornices, rendered pilasters, louvred partitions and high arched windows. It was later altered considerably – the original finish (white and terra-cotta red) was stripped off, most of the colonnades and arches were bricked up while the high windows were filled by inserting heavy concrete sunshades. The compound wall fencing was replaced by concrete jalis. A new three-storied structure was merged with the open southern façade of the old building. The placement of staircases on the east and west sides have drastically changed the visual image of the façades.

© IFP

View before alteration

View after alteration

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2.3.4 Case Study: Addition – Adaptive Re-use

Acceptable Example

17, Romain Rolland Street – Grade II A building
Former Education Directorate, now converted into a heritage hotel

West elevation before adaptive re-use

West elevation after adaptive re-use

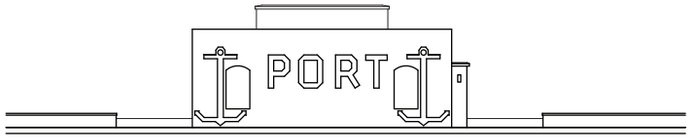
At the time of transfer the building was in a critical condition following which a detailed site inspection and documentation (including measured drawings and photographs) was done. All the existing features were retained/repaired. The entire building was restored and the interior was subjected to minor alterations to improve the functional adaptability. The first floor extensions followed the ground floor footprints. The height of the room added over the garage (on street side) was kept lower so as not to disturb the original symmetrical façade of the building. Where possible the exterior was left in its original finish.

Façade before adaptive re-use

Façade after adaptive re-use

Insensitive Example

Goubert Avenue – Grade II A building
Former Port office, now converted into a restaurant



West elevation before alteration

West elevation after alteration

A small but historically significant building as it was the port office from where the export and import activities were monitored in the past. Following the destruction of the pier, this building lost its function. It is now being used as a restaurant and in the process various accretions have been built around the original structure. The old building has lost its presence in the middle of a chaotic setting.

Elevation before re-use

Elevation after re-use

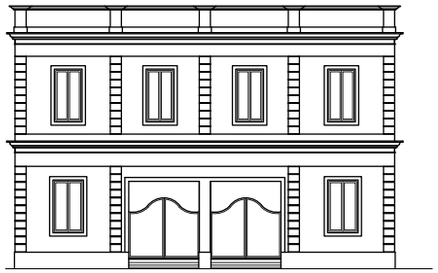
Ville Française Flatnd.indd 50 07/04/10 11:18 AM

2.3.5 Case Study: New Construction

Acceptable Example

2, rue Surcouf – Grade II B, private residence

Original building



Reconstructed building

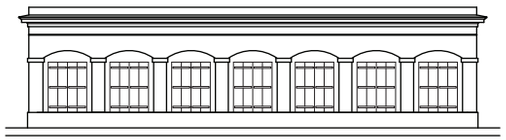
A residential building with typical French features was demolished to make way for a new apartment. The essential features like cornices, rendered pilasters, parapets and windows with bands were drawn from the previous building and incorporated in the new building. Provision for new elements like car parking, sunshades and grill gates were also considered in the new design.

View of the original building

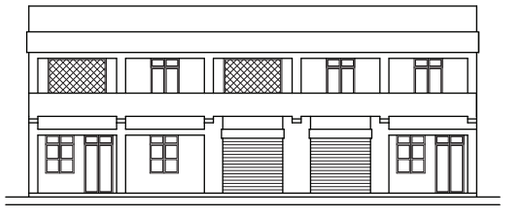
View of the reconstructed building

Insensitive Example

11, rue Bazar St. Laurent – Bazaar building, Grade II A



Elevation of the old Bazaar



Elevation of the new building

This was a simple but historically significant building as it housed the only bazaar of the French quarter and the street is still known after it as 'rue du Bazar Saint Laurent'. The building was demolished in the 1980s and replaced by a standard office type building to accommodate the two-storied Revenue Department. Yet another important vestige of history has been lost.

View of the old Bazaar

View of the replaced new building

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Ville Française Flatnd.indd 52 07/04/10 11:18 AM

3

TAMIL TOWN

Architectural Features
Guidelines and Recommendations
Case Studies

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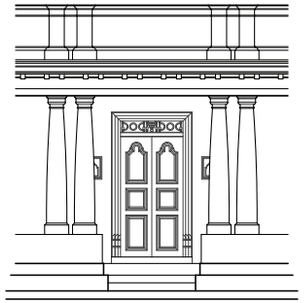
Ville Tamoule Flatnd.indd 54 15/04/10 3:01 PM



3.1 Architectural Features

3.1.1 Layout of the Tamil Town
3.1.2 Streetscapes of Tamil Town
3.1.3 Design Aspects
3.1.4 Features of a typical Tamil House
3.1.5 Climatic Aspects
3.1.6 Structural System
3.1.7 Construction Materials
3.1.8 Franco-Tamil Style
3.1.9 Features of typical Tamil Façades
3.1.10 Typologies of Tamil Buildings
3.1.11 *Thalvarams*
3.1.12 *Thinnais*
3.1.13 Entrance Doors
3.1.14 Windows
3.1.15 Pilasters and Cornices
3.1.16 Parapets
3.1.17 Balconies
3.1.18 Sunshades
3.1.19 Building Composition
3.1.20 Street Composition

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Ville Tamoule Flatnd.indd 56 15/04/10 3:01 PM

3.1.1 Layout of the Tamil Town

The Tamil Town is to the west of the Grand Canal which bisects the old town into the French and Tamil parts. When the Dutch came to Pondicherry in 1693, Pondicherry was a fishing hamlet with irregular street pattern. As the town developed in stages over the decades, the streets were straightened out following an orthogonal pattern and the French relocated the native population to the West of the present Grand Canal. As the town grew, the Tamil part developed into three quarters, Hindu, Christian and Muslim.

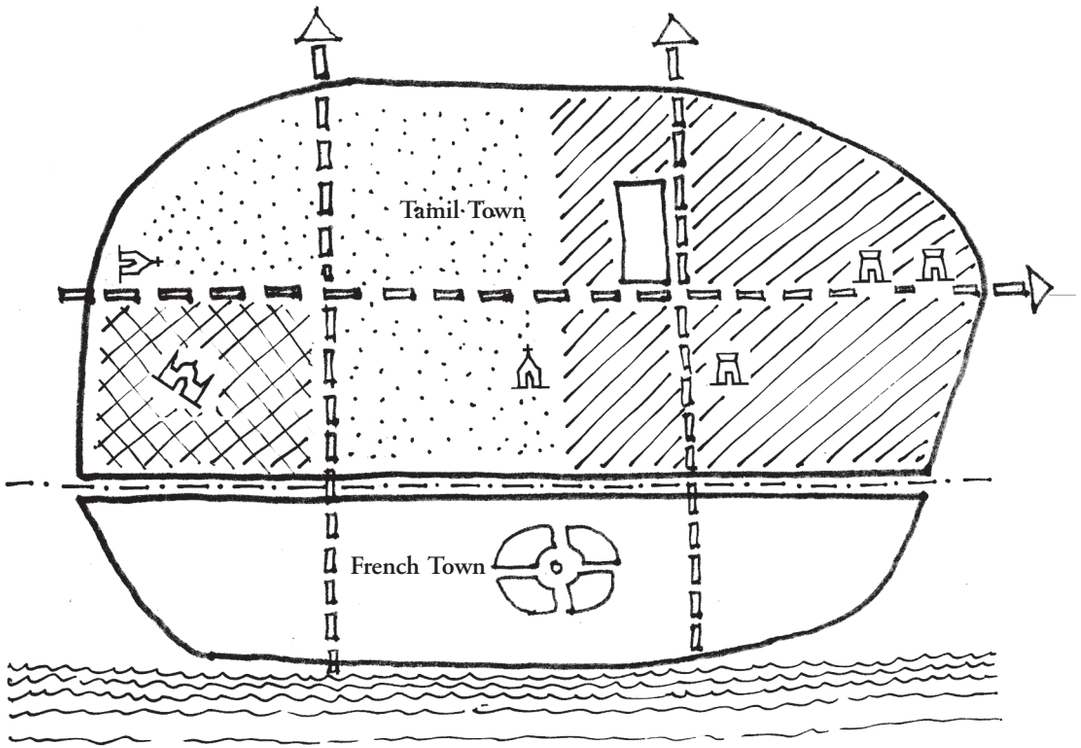
The Hindu quarter grew around the nucleus of temples in the north west. Vedapureeswarar Kovil, Perumal Kovil and Kalatheeswaran Kovil seem to pre-date French presence and the streets here are still known after these temples (Perumal Kovil Street, Iswaran Kovil Street and Kalatheeswaran Kovil Street).

The Immaculate Conception Cathedral gave rise to another nucleus where the Christian quarter developed (which can be evidenced from street names like Montorsier, St Therese, Laporte).

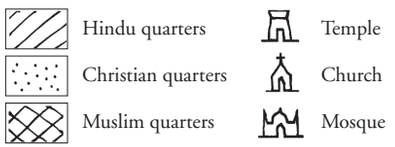
In the South eastern part of the Tamil town, a Muslim quarter developed around the Qutpa Mosque.

One of the significant features here is that in spite of the religious differences the entire settlement shares a common architectural pattern. There are of course variations reflecting the socio-cultural and religious differences, however these variations are subtle and often integrated within the built-form without affecting the essential structure of the buildings.

The present town form is a hybrid of a European planning concept and the native building traditions, which has resulted in a unique 'Franco-Tamil' architecture.



Structure of the Tamil Town



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3.1.2 Streetscape of the Tamil Town

It is interesting to note the distinct variation in the characteristics of French and Tamil streets. French streets are characterised by mansion type villas with high compound walls, elaborate gates, garden courts, arched patios, colonnaded galleries, voluminous rooms, high arched openings, wooden balconies and flat terraced roofs.

Tamil streets are mainly characterised by the *thalvaram* (street verandah with platform and lean-to-roof over wooden posts) – a social extension of the house – and a *thinnai* (semi-public verandah space with masonry benches for visitors). These talking streets, so called because of their intimate scale and interactive nature, are typical of the vernacular Tamil architecture (also to be found in Kumbakonam, Tanjore, Chidambaram, Srirangam, Mylapore), and the entire street stretch is homogenous because of the use of connecting elements like lean-to-roofs, cornices (horizontals), pilasters or engaged columns (verticals) and ornamental parapets. These Tamil buildings usually feature a combination of flat and pitched roofs.

In the case of two-storied Tamil buildings the first floor is usually treated with French features leading to a mix of Tamil and French styles which is the signature mark of Pondicherry heritage.

Typical Tamil streetscape

Ville Tamoule Flatnd.indd 58 15/04/10 3:01 PM

Street Plan and Elevation – Iswaran Dharmaraja Koil Street

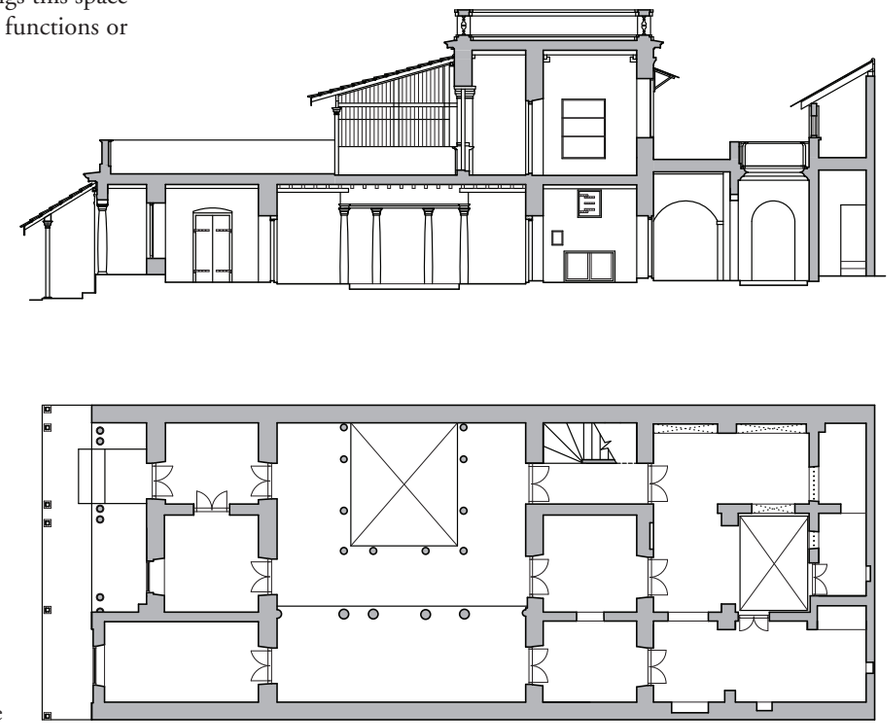
Ville Tamoule Flatnd.indd 59 15/04/10 3:01 PM

3.1.3 Design Aspects

Traditional Tamil houses are strictly functional, and a series of open, semi-covered and covered spaces with subtle levels and a through-axis characterise the plan. The *thinnai* marks the transition space, after which the house is entered through a finely carved wooden door and a vestibule, and once inside, the *mutram* (open courtyard) becomes the central space around which various other private spaces are functionally arranged.

The *mutram* is an age-old concept, and according to the *Vaastu Shastra*, each house was to possess an open courtyard – known as *brahmasthanam* (meaning 'vital space'). This open space is mainly to facilitate a direct link – an auspicious connection – with the five elements – earth, fire (sun), water (rain), ether and wind. Country tiled roofs of the surrounding *thalvaram* funnel air into this *mutram*, which is the major source of lighting and ventilation. In the case of two-storied buildings this space is covered by a clerestory. *Mutrams* are very useful during functions or family meetings.

Beyond the *mutram* are the more private spaces like *sami arai* (pooja room), kitchen, storeroom or bedroom. The kitchen opens onto a rear courtyard. This open space at the end of the house is provided with a well and a tree, and is mainly used for domestic utilities and accommodating livestock, which were part of the household then. In the case of wealthy houses multiple courtyards are common. These continuous back-to-back row houses share walls, and the eastern wall of a house is usually taken as its mother wall.



Plan and section of a typical Tamil house

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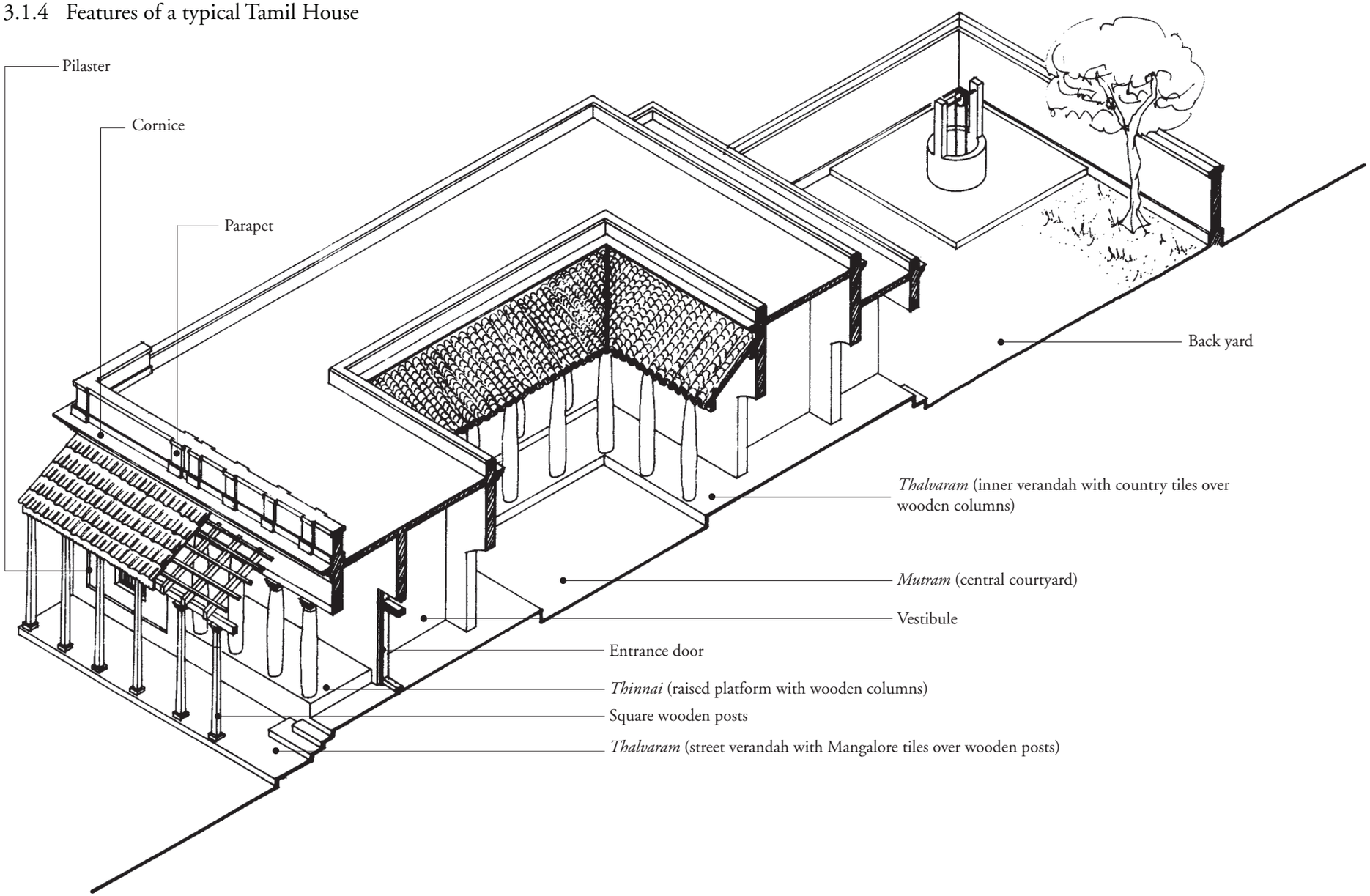
3.1.4 Features of a typical Tamil House



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3.1.5 Climatic Aspects

To minimise the discomfort of the tropical climate, where it is hot and humid throughout the year, direct openings and large volumes were avoided (totally contrasting with the design approach of the large colonial villas on the other side of the town – for the same climate). On the street side where the walls are exposed to direct sun or rain, the use of *thalvaram* and *thinnais* provide shade and protection. The courtyard induces ventilation due to updraft.

In the case of country tiled roofs, the successive layers of tiling traps the heat and provides effective insulation. The mix of open, covered and semi-covered spaces offers a choice according to the climate.

3.1.6 Structural System

Buildings feature simple load bearing walls. Foundations are of rubble and have one or two steppings. Walls are of flat bricks – about 45 to 60 cm thick and packed with an infill of mud and brickbats. First floor walls are lesser in thickness than those of the ground floor. Madras terrace roofing (brick-on-edge masonry in lime mortar over closely spaced timber joists) is used for flat roofs and Mangalore tiles or half-round country tiles (laid on battens over wooden rafters) are used for sloping roofs. *Thinnais*, *thalvarams* and *mutrams* feature wooden structures.

Balconies rest on cantilevered wooden joists, sometimes over wrought iron brackets. In some cases the lean-to roof is supported by iron or wooden brackets. Brick corbelling is used for cornices, copings and decorative bands.

View of Madras terrace roof under construction

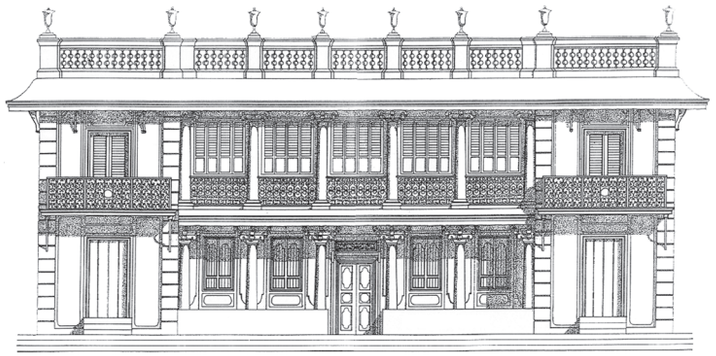
3.1.7 Construction Materials

Tamil and French houses were built of a combination of various nature-friendly and locally available materials such as burnt bricks, lime, terra-cotta tiles and wood. Major structural wooden members like columns and beams were made of teak, while minor members like rafters and posts were made of palm or other local timbers. Traditional Tamil houses demanded skills in brick laying, tile laying, timber craft and plaster work.

3.1.8 Franco-Tamil Style

It is important to point out the synthesis of the French and Tamil styles especially in the Tamil town. Probably it was considered fashionable to use French features in the street façades of the native buildings (and in many cases in the interiors as well) – however this was done without compromising on the age-old functional elements of *thalvarams* and *thinnais*. This exchange of architectural patterns is evident in the façades of two-storied buildings where the ground floor is usually of the Tamil type with *thinnai*, *thalvaram* and carved doors while the first floor features French influence with arched windows, plaster decorations, fluted pilasters, columns with capitals, and end ornament elements.

On the whole, a conspicuous synthesis of two varying styles has happened which has resulted in the interesting Franco-Tamil architectural style.



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3.1.9 Features of typical Tamil Façades

Façade of a residential building, 12, Bharathi Street

© EFEO/FL

Façade of a residential building, 25, Kazy Street

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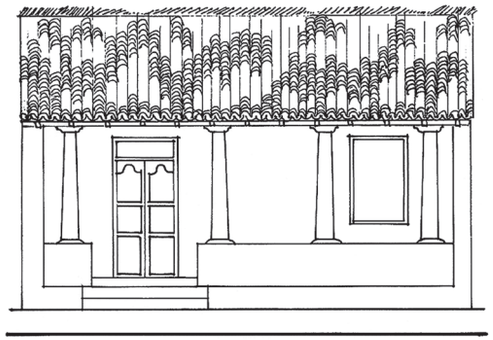
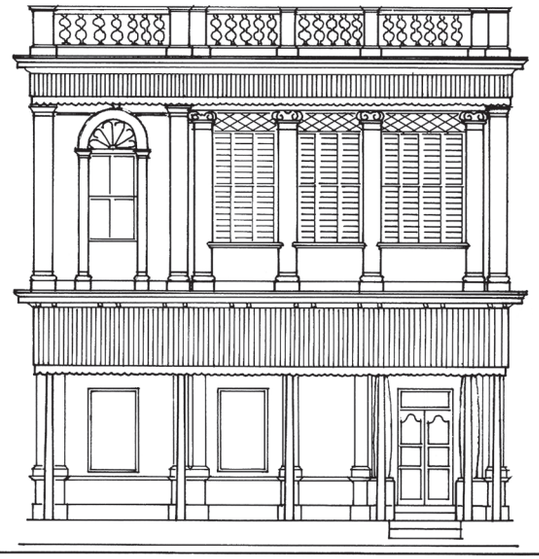
3.1.10 Typologies of Tamil Buildings



Simple country tiled house with *thinnai*

Simple ground floor house with *thinnai* and *thalvaram*

Typical house with *thinnai* and *thalvaram* and partial first floor



Franco-Tamil house with *thalvaram* and *thinnai* in the ground floor and circular columns and ornamental elements in the first floor

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3.1 Architectural Features

Grand house set inside the plot with colonnade and compound wall

Franco-Tamil house in the Christian quarters - typical Tamil type ground floor with French influence in the first floor

Ornamental house in the Muslim quarters with notable wooden and iron fretwork

Later type Tamil house with flat roofed *thalvaram* and balcony above

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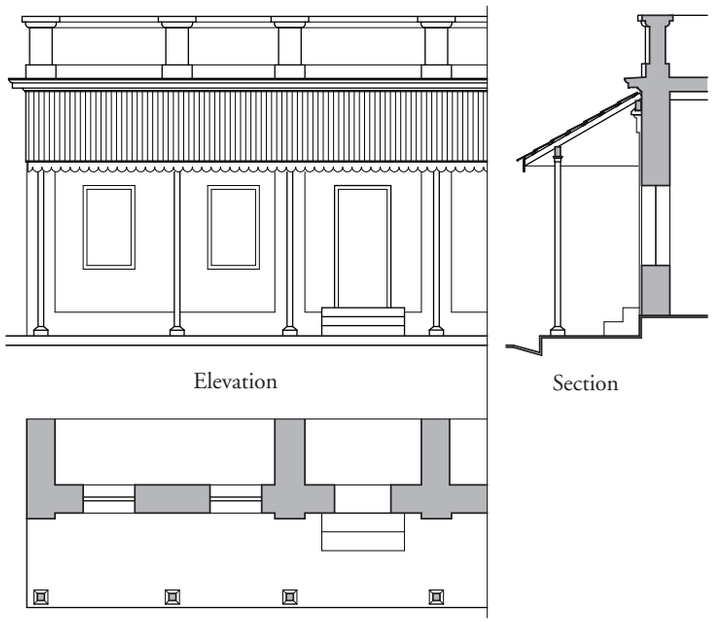
3.1.11 *Thalvarams*



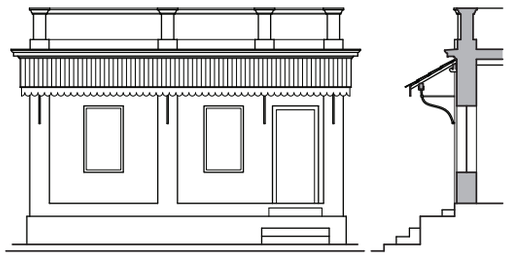
Elevation

Section

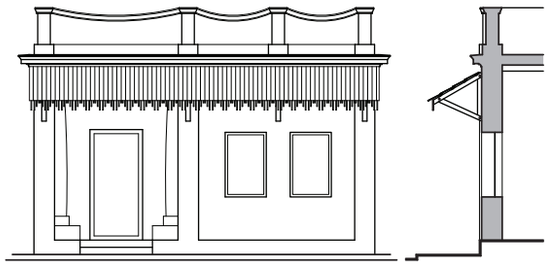
Plan

Details of a typical *thalvaram*

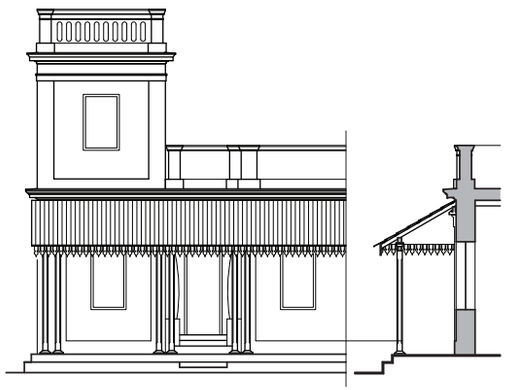
Thalvaram has been the most essential and mandatory feature of the Tamil houses and streets in Pondicherry. *Thalvarams* were benevolent social extensions of the house and had many functions - to provide shade and protection for the passers-by, to protect the building wall from sun and rain, to serve as a transition space between the street and the house, and to render continuity to the streetscape. The typical *thalvaram* features Mangalore tiles over wrought iron or wooden brackets or wooden posts. The angle of the *thalvaram* is about 30°. In all cases there is a continuous elaborately carved eaves board to protect the end of the rafters.



Elevation and section of a *thalvaram* with iron brackets



Elevation and section of a *thalvaram* with wooden brackets



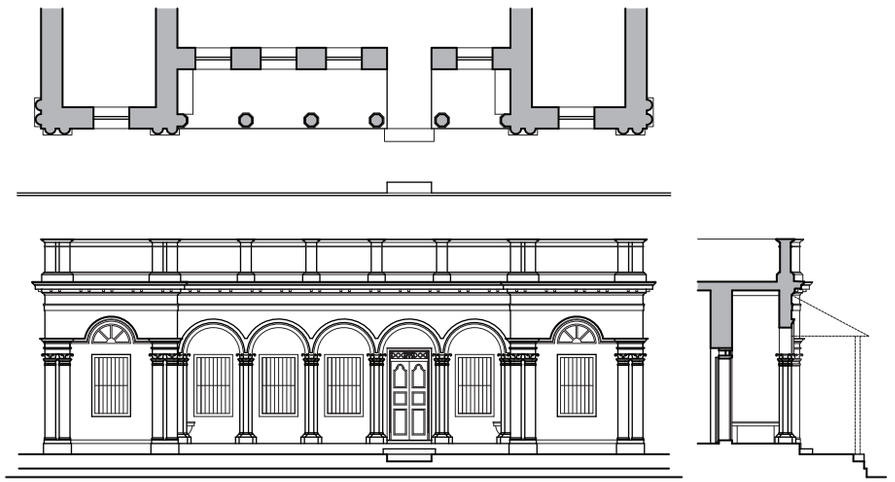
Elevation and section of an ornate *thalvaram* with twin posts and elaborate eaves board

Elevation and section of a flat roofed *thalvaram* with balcony above

Ville Tamoule Flatnd.indd 66 15/04/10 3:01 PM

Plan and elevation of a typical *thinnai* with seating platform and wooden columns

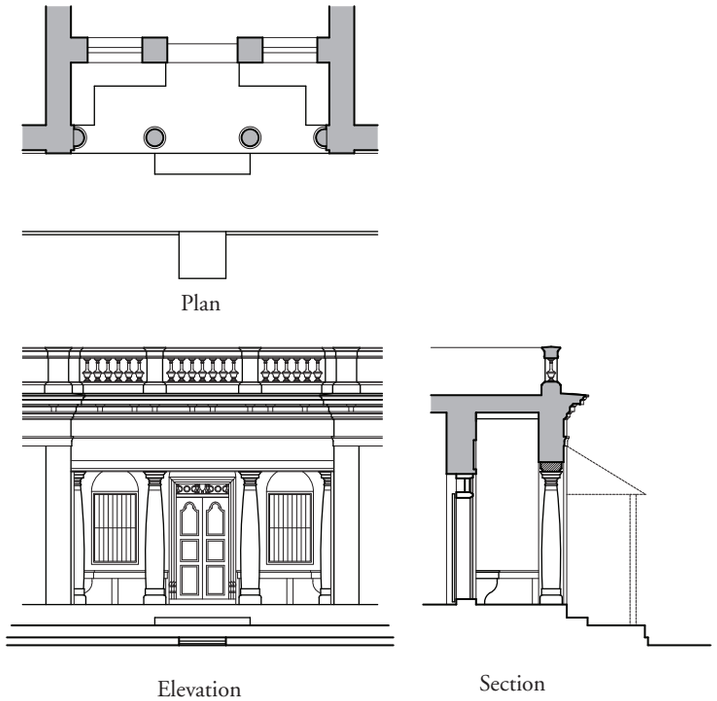
Section



Plan and elevation of a *thinnai* with raised platform, masonry columns and arches

Section

3.1.12 *Thinnais*



Plan

Elevation

Section

Detail of a *thinnai* with wooden columns and masonry benches (*thalvaram* not shown)

Thinnai and *thalvaram* constitute the main façade of Tamil houses. *Thinnais* mark the sensitive transition space before entering a house. These were functional spaces used for receiving strangers and also for the inhabitants to relax in and have social interaction with neighbours. The older houses possessed generous *thinnais* while in the case of later Tamil houses the *thinnais* were symbolic - featuring just a verandah space or masonry bench.

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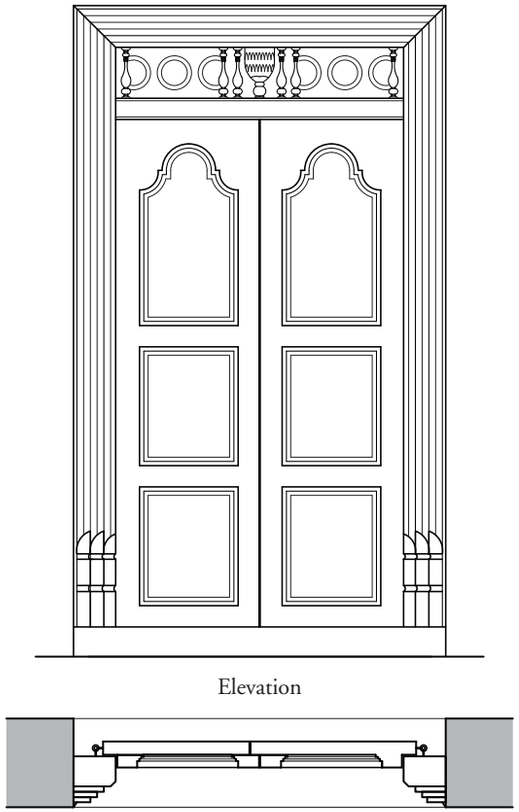
3.1.13 Entrance Doors

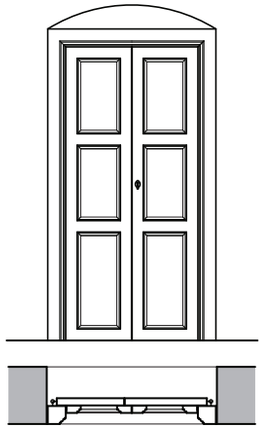


Elevation

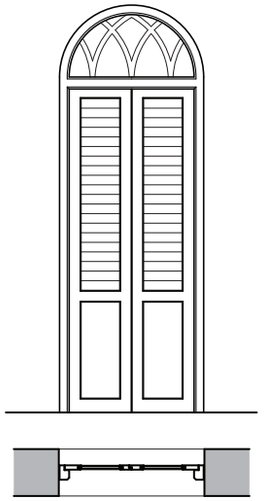
Plan

Details of a typical entrance door

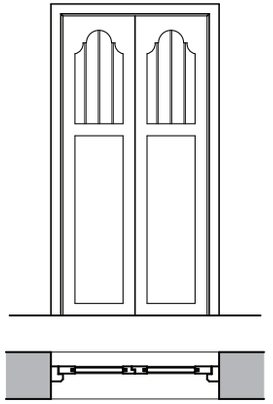
Entrance doors are finely carved and the elaborate frames are made of many layers of wood. The shutters are thick and often of two pieces - the front one with carved cut-out and the rear one just plain. The doors are fixed to the frame by iron hinges. There is a surprising consistency in the carving pattern of these doors. The relief on top of the door frame has symbols pertaining to the community of the owner.



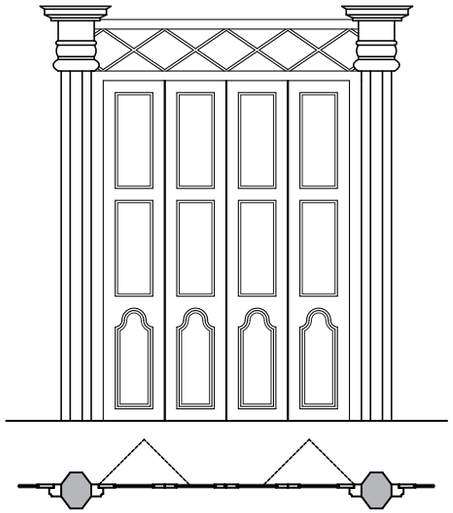
Segmental arched door



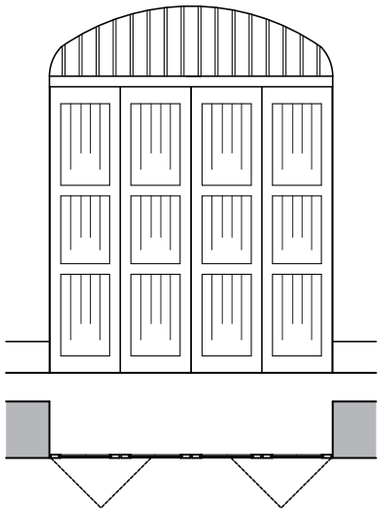
Semi-circular arched door with louvred shutter



Typical inner door with iron bars above



Folding door with four leaves



Garage door

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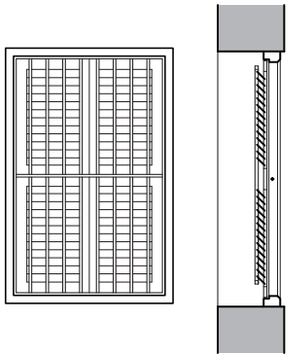
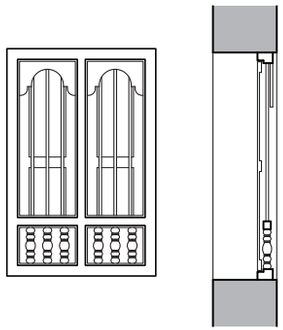
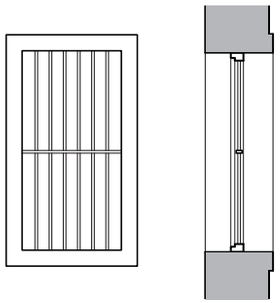


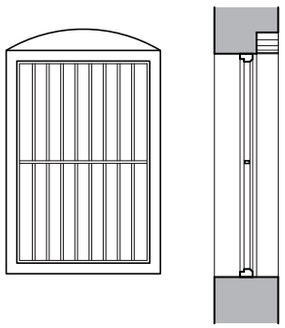
Window with louvred shutters



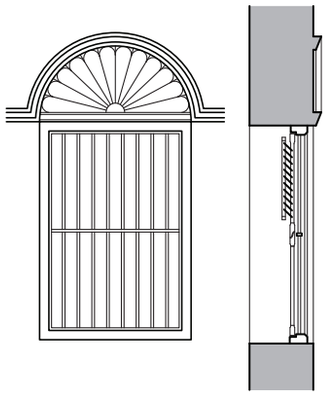
Window with ornamental details



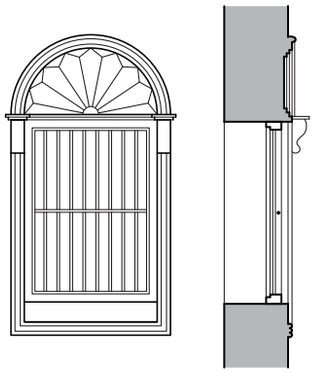
Window with band
(a rare type)



Segmental arched window

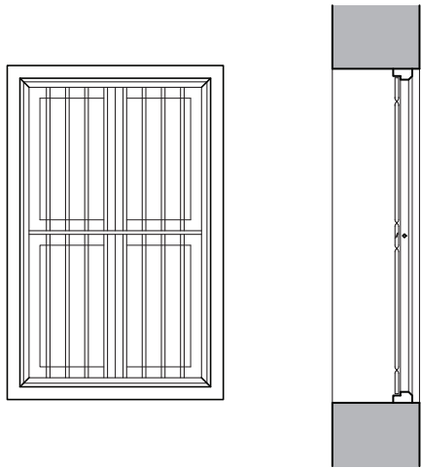


Ornamental semi-circular arched window



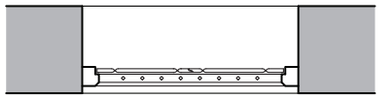
Semi-circular arched window with fluted bands

3.1.14 Windows



Elevation

Section



Plan

Details of a typical window

Windows are mostly flat with elaborate teak wood frames set into the walls. The shutters, behind strong wrought iron bars set at 45° angle, are provided with wooden panels or louvres. Many of the Franco-Tamil buildings feature semi-circular windows with ornamental plaster work or stained glass panels. Sunshades are of limited types – the common one being that of a light weight material over sloping wooden brackets.

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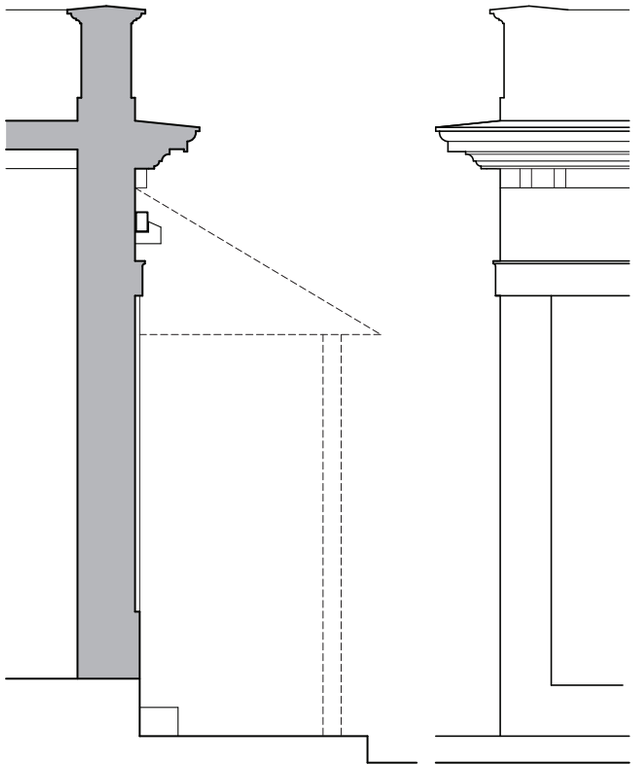
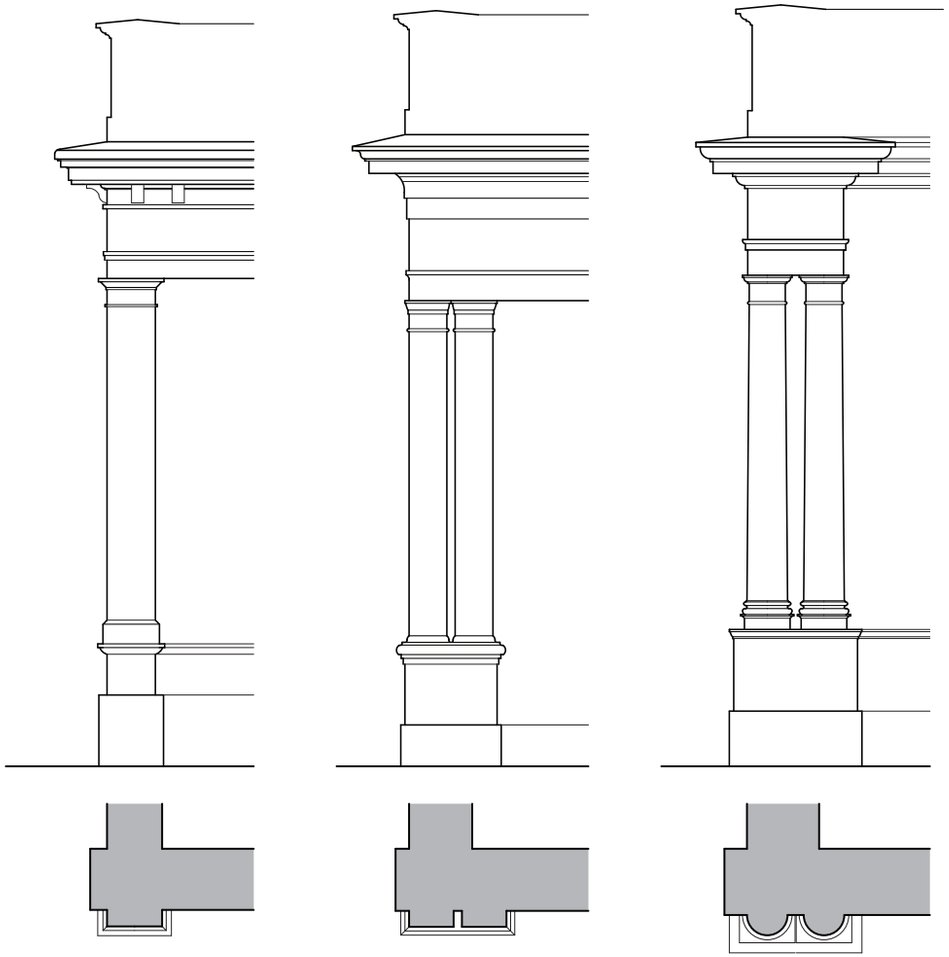
3.1.15 Pilasters and cornices



Details of a typical pilaster and cornice

Apart from *thalvaram* and *thinnai*, pilasters and cornices constitute the main composition of the façade, providing a frame for features like openings, parapets and balconies. Pilasters follow the wall lines and are often detailed with a base and capital. Cornices follow the floor divisions and are provided with adequate throating within curved or sloped mouldings to protect the wall surface below from rain. They are made of corbelled flat bricks in lime mortar.



Single pilaster with base and capital

Twin pilaster with base and capital

Twin engaged column with base and capital

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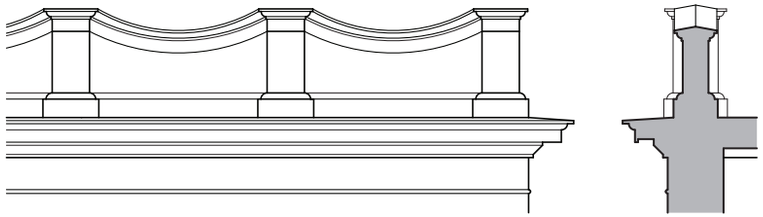
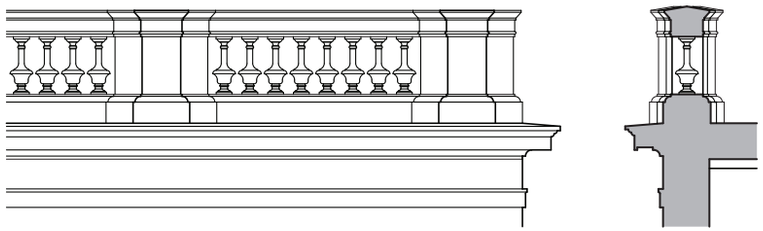
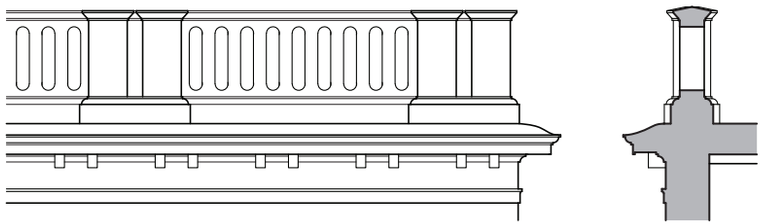
Parapet with curved panels



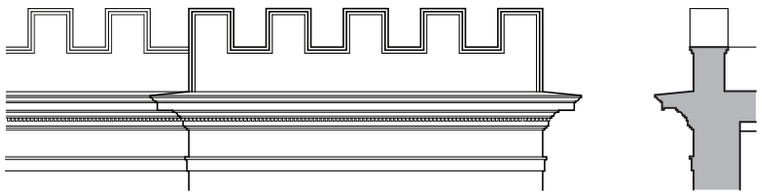
Parapet with pot balusters



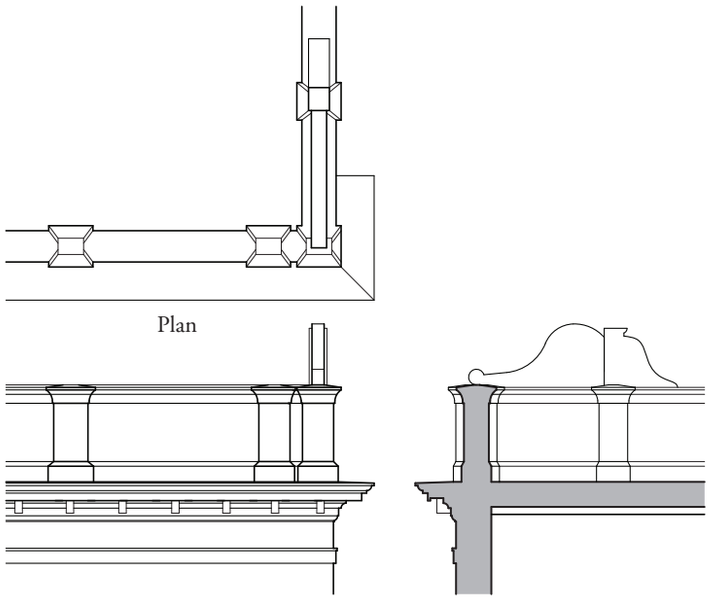
Parapet with loopholes



Parapet with battlement



3.1.16 Parapets



Details of a typical parapet

Parapets are the most important horizontal feature defining the skyline of the town. Parapets generally rest on an elaborate cornice projection and the common types feature rectangular bays following the pilaster divisions of the wall panels with terra cotta pot balusters, brick loopholes (rectangular or curved), gentle curves, geometric designs in plaster relief or just plain. In all cases they are detailed with a continuous bottom band and inclined coping on the top to drain off rain water. In many cases the ends of the parapet feature a curved masonry balustrade representing the trunk of an elephant.

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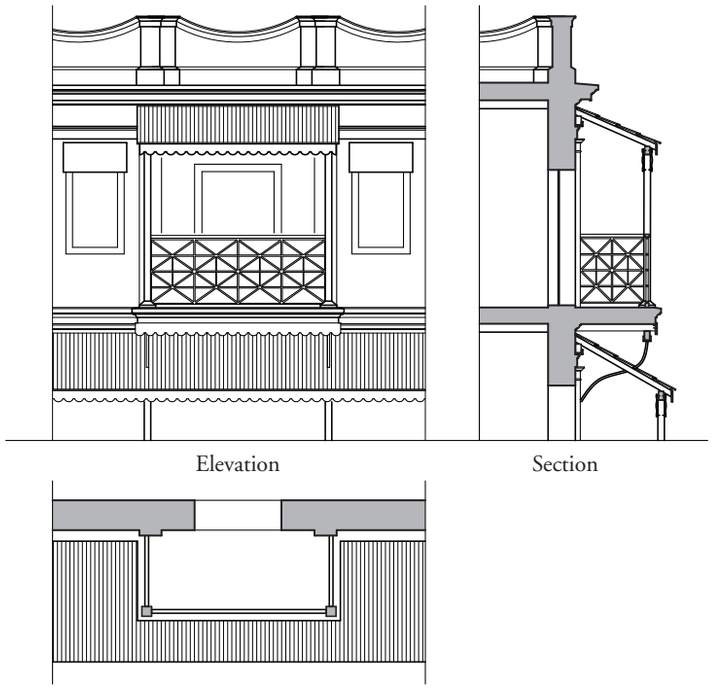
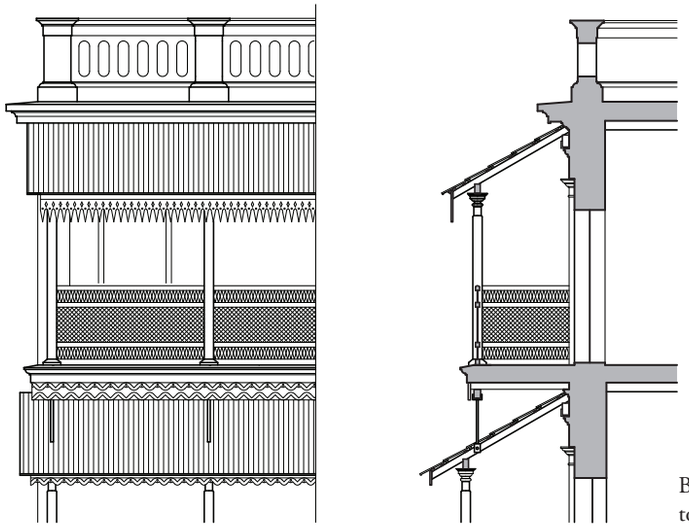
3.1.17 Balconies

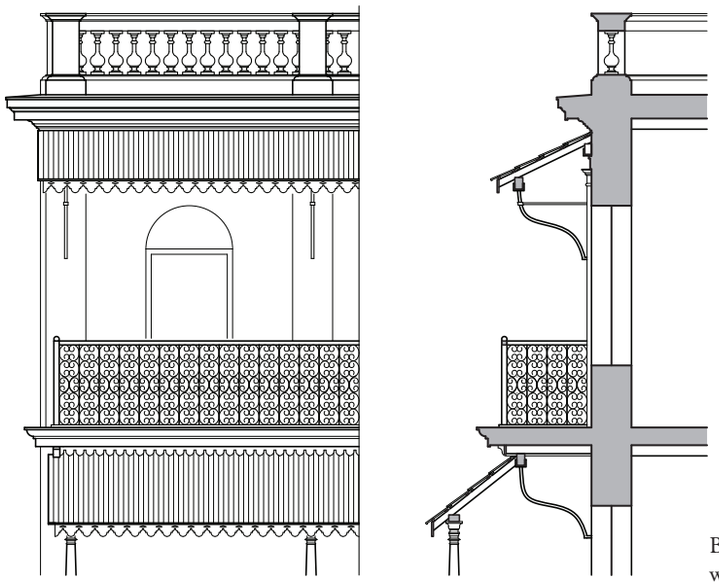


Details of a typical balcony over iron brackets

Balconies are usually about 3 ft to 4 ft deep and are of projected Madras Terrace Roofing - often supported by wrought iron brackets. The railings are usually of well-detailed iron or wood work and the soffits of these balconies are provided with ornamental eaves. These balconies are roofed with Mangalore tiles over wooden posts.



Balcony with iron supports fastened to the rafters below



Balcony over wrought iron brackets with ornamental iron railings

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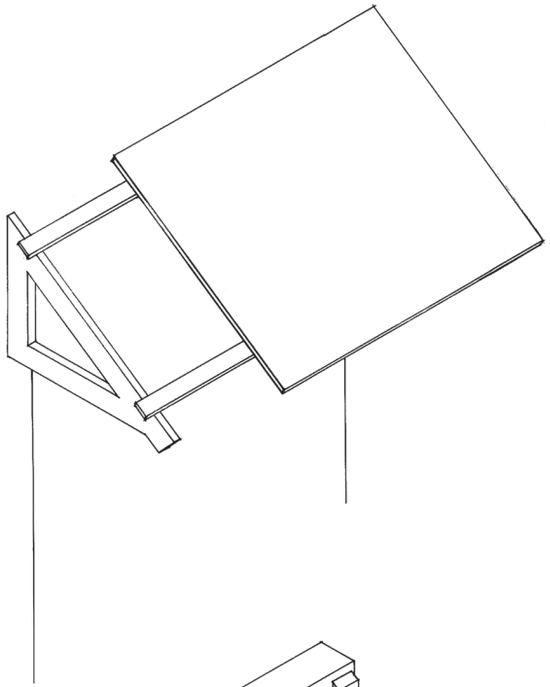
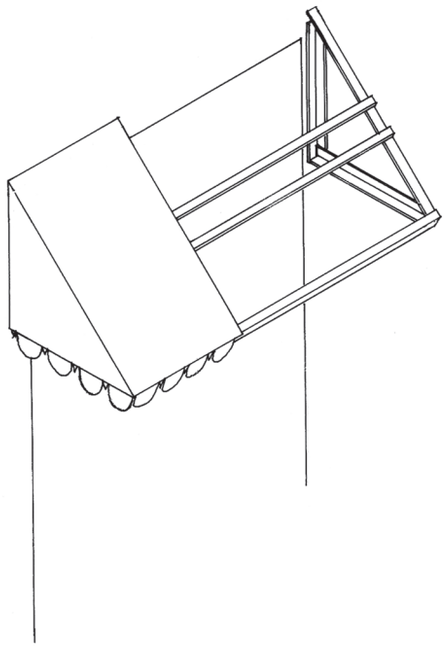
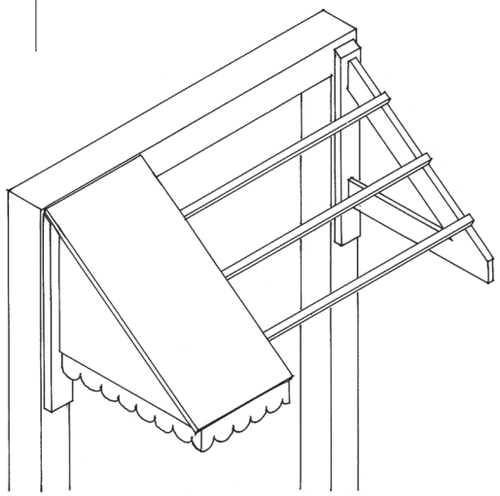
3.1.18 Sunshades



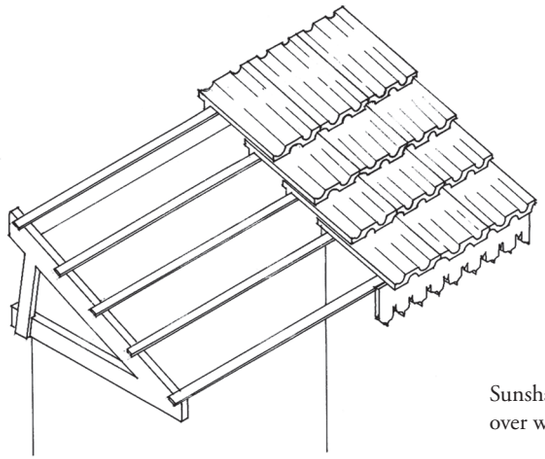
Simple sunshade - cement sheet over wooden brackets fixed to wall



Sunshade with metal sheet over steel angles



Sunshade with cement sheets over wooden brackets fixed to the window frame



Sunshade with Mangalore tiles over wooden brackets

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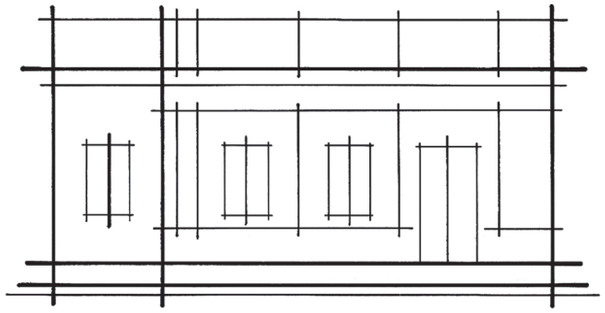
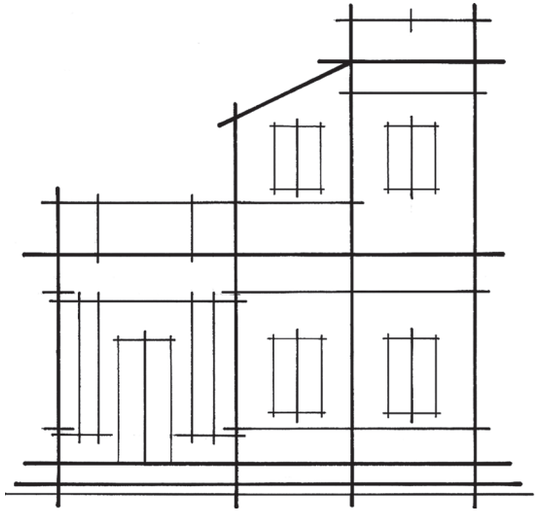
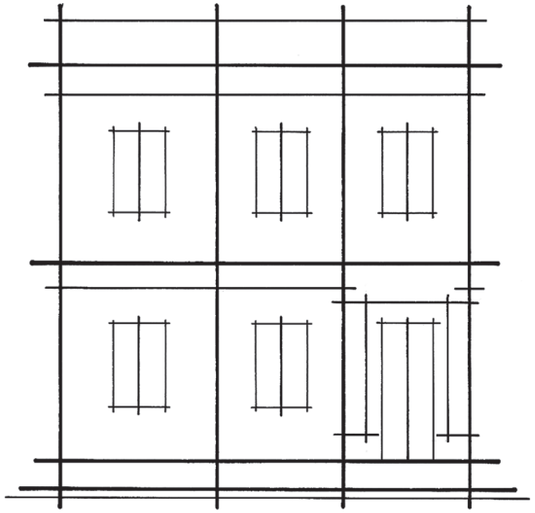
3.1.19 Building Composition

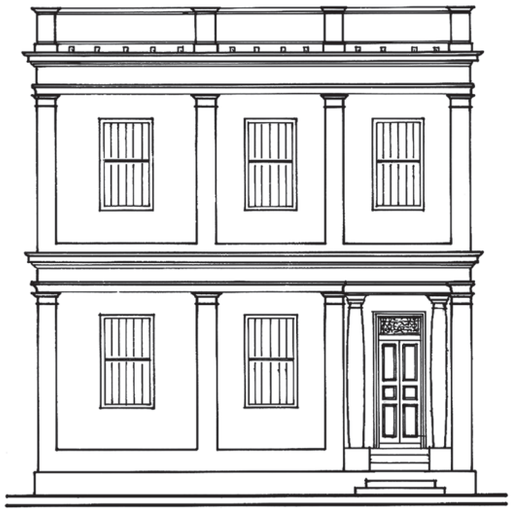






Skeleton and final composition of a simple single storied building

Skeleton and final composition of a partly two-storied building



Skeleton and final composition of a two-storied building

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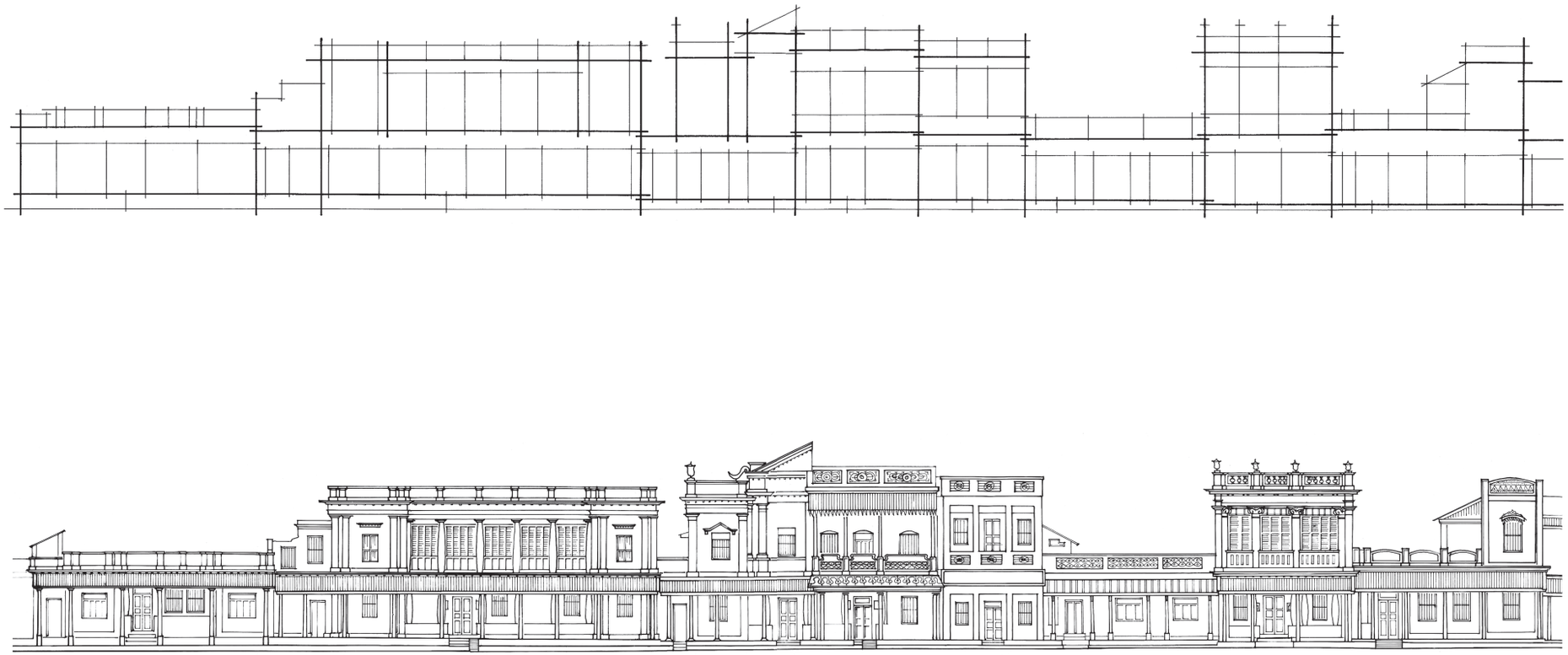
3.1.20 Street Composition



Skeleton and final composition of a streetscape - continuous stretch with a consistent treatment of façades
63 - 77, Calve Subbaraya Chetty / Vysial Street

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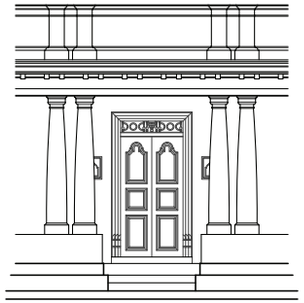
Ville Tamoule Flatnd.indd 76 15/04/10 3:02 PM



3.2 Guidelines and Recommendations

3.2.1 Architectural Guidelines

3.2.2 Design Suggestions for New Buildings

3.2.3 Illustrated Examples:

- Streetscape
- Continuity and Composition
- Scale and Proportion
- *Thalvarams*
- *Thinnais*
- Entrances
- Windows
- Sunshades
- Balconies
- Parapets
- Pilasters and Cornices
- Finishes and Signboards

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3.2.1 Architectural Guidelines

As discussed in chapter 2.2.1 most of the recent constructions that have come up in the town seem to reflect a fancy for the classical European style which is over-ornamental and out-dated. Also there is a tendency among the people to adopt French style even if the building is in the Tamil town.

The old houses shared walls while courtyards and street fronts served as the main source of lighting and ventilation. This minimised wastage of space (as the open-spaces were well-integrated within the house and became part of the living area) and also ensured an uninterrupted building-line. This is unlikely in the case of the setback system which was a concept of the British for new settlements. So while designing new buildings one should maintain the continuity of the building-line and avoid wide setbacks (according to the existing bye-laws setbacks are not mandatory within the old town).

Pondicherry's 'Tamil style' is very consistent and continuous with features like *thalvarams*, *thinnais*, wooden columns, pilasters, cornices and openings of standard proportions. This general form, continuity, scale, proportion and fenestration can still be followed while designing new developments in the Tamil precinct so that the buildings are unobtrusive in their traditional surroundings. Here one should remember that the coping and cornice projections have the function of protecting wall surfaces from the rain.

3.2.2 Design Suggestions for New Buildings:

i) Construct and finish the building in traditional method – brickwork and plastering preferably in lime-cement mortar.

ii) Integrate the concept of *thalvaram* in the design. Avoid placing bathrooms and staircases in the front as these disrupt the basic façade composition.

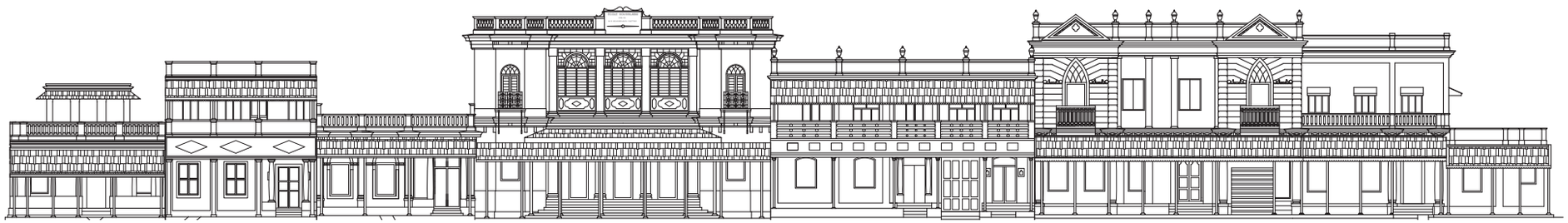
iii) Place doors and windows of right proportion symmetrically in wall panels delineated by pilasters and cornices.

iv) Use wood for doors and windows – where possible use old wooden doors and windows.

v) Finish the exterior façade in traditional finishes and colours (yellow, green, blue, ochre, terra cotta and red) – do not clad façades with stones, tiles, etc.

vi) Generally use traditional patterns for window shades, balconies, gates, garage doors, etc. Where unavoidable modern materials like concrete can be used with care and sensitivity.

In the following pages a number of illustrated examples are given to explain the suggestions and application of above guidelines. Enclosed in the annexure are also some alternative façade designs.



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Streetscape

Recommended

A

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Retaining and preserving the original floor plan features such as size, configuration, proportion and relationship of spaces. Extensions to be harmonious and in such a way that their addition or later removal does not affect the essential character of the building. New construction to match with the traditional plan features *(as in fig. A)* of the precinct.

Not Recommended

B

Radically changing the original floor plan/interior spaces, demolishing the principal walls or damaging the quality and relationship of spaces to be avoided. Extensions disturbing the originality of the building to be avoided. New constructions that defy the context of the traditional townscape of the precinct *(as in fig. B)* to be avoided.

Continuity and Composition

A

An uninterrupted building line and continuous wall to wall construction are typical of the old town *(fig. A)*. All the building activities should respect the building line, and composition of individual façades should complement the overall streetscape, establishing a part-to-whole relationship of the built form.

© IFP

B

Wide setbacks, staggered/angular wall plans, deep offsets or cantilevers causing discontinuity in the building line to be avoided. Insensitive inserts varying drastically in composition with the neighbouring heritage buildings *(fig. B)* and disrupting the overall continuity of the streetscape to be avoided.

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Scale and Proportion

Recommended *Not Recommended*

A

B

A significant feature of the Tamil Town is its intimate scale (just as the main feature of the French Town is its grand scale). The original scale and proportion of the old buildings should be maintained. New constructions should comply with the intimate scale and ideal proportions characteristic of the precinct *(as in figs. A and B)*. The horizontal floor divisions and vertical bay divisions should be based on the site context.

C

D

Out-of-scale features like slender dummy columns, fanciful screen pediments *(fig. D)* or squatted proportions of openings (because of low ceiling heights) or absence of horizontal/vertical divisions to be avoided. Scale and proportions intimidating the abutting heritage building or considerably different to the overall street context *(fig. C)* of the precinct to be avoided.

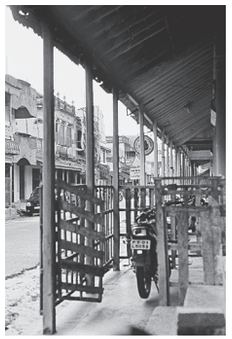
Thalvarams

A

B

Thalvarams (figs. A and B) are to be regarded as the most important façade character of a Tamil building. In the case of new constructions also thalvarams can be provided and in all cases the traditional materials – Mangalore tiles over wooden posts shall be used.

C


D

Removing the existing *thalvaram* or fencing it up *(fig. C)* with masonry or iron grill to be avoided. Encroachments like telephone booths, petty shops, bunk shops which affect the visual continuity and obstruct the passage *(fig. D)* through the *thalvaram* space to be avoided.

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Thinnais

Recommended *Not Recommended*

A

B

C

D

Features of the existing *thinnais* like masonry benches and wooden columns *(as in figs. A and B)* to be preserved. The *thinnai* spaces can be effectively used for small-scale commercial activities (like tailoring, type-writing etc.).

Bricking up the *thinnais* or closing them with wooden or iron grills to be avoided. Converting them into parking areas or fully commercial spaces *(fig. D)* or radically altering the character of the space *(fig. C)* to be avoided.

Entrances

A

B

The entrance doors of Tamil houses feature a consistency in the detailing of their door frames and moulding pattern. Existing doors are to be retained and preserved *(fig. A)*. In the case of new constructions the character and proportion of the typical entrance doors to be followed.

Removing or disfiguring the existing entrance doors *(fig. B)* to be avoided. Wide entrance with openings of unusual shape or proportions to be avoided. Large areas of glazing, frames of aluminium or shutters of materials other than wood to be avoided.

Ville Tamoule Flatnd.indd 82 15/04/10 3:02 PM

Windows

Recommended

A

The symmetrical arrangement, including the size, position and number of openings to be retained and preserved *(fig. A)*. The characteristic proportions with typical wooden frames, louvred shutters and iron grills to be adopted. Inevitable filling up should be sensitively done retaining traces of the opening.

Not Recommended

B

Bricking up original windows/altering the arrangement by removing old windows or cutting in new openings *(fig. B)* to be avoided. New openings (with odd shapes/proportions, conspicuous shutters or obtrusive sun shades) drastically varying with the character of the existing opening to be avoided.

Sunshades

A

B

Sunshades to be incorporated without damaging the opening profile and the window frame. Materials such as bison board *(fig. A)* or Mangalore tiles on wooden supports *(fig. B)* should be adopted and set within the opening without disturbing the feature physically or visually.

C

D

Disfiguring or damaging the existing opening profile and inserting heavy lintel slabs *(fig. D)* or conspicuous concrete sunshades *(fig. C)* to be avoided. Any kind of addition or alteration disturbing the original character of the opening to be avoided.

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Balconies

Recommended *Not Recommended*

A

B

C

D

The original balconies *(as in figs. A and B)* including their wooden/iron railings, lean-to roofs with wooden posts, eaves board and wrought iron brackets to be retained and preserved. New balconies to reflect the character of the traditional balconies and to be sensitively designed so as to complement the streetscape.

Damaging/removing the original balconies or replacing them with new insensitive balconies *(figs. C and D)* when minor repair would have been appropriate. New balconies (with conspicuous concrete/iron-pipe railings, heavy sunshades) drastically varying in character with the traditional balconies to be avoided.

Parapets

A

B

C

D

Most important character defining the skyline. Original parapets *(as in figs. A and B)* including their vertical divisions, base and coping details, terra-cotta balusters/brick loopholes to be retained and preserved. New parapets to be in harmony with the character of the precinct complementing the skyline of the townscape.

Disfiguring the original parapets by removing the terra cotta balusters, filling the loopholes or replacing them with inappropriate materials *(fig. D)* to be avoided. New designs with steel/iron pipe railings, brick/concrete jalis or fanciful balusters *(fig. C)* contrasting with the characteristic skyline of the townscape to be avoided.

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Pilasters and Cornices

Recommended

A

Existing pilasters and cornices to be retained and preserved *(fig. A)*. In the case of new construction the exterior wall shall be divided into panels by pilasters (verticals) and cornices (horizontals). The rhythm of the division as well as the scale and proportion should be matched with that of the overall streetscape.

Not Recommended

B

Stripping the building of its original pilasters and cornices leading to plain wall surfaces *(fig. B)* to be avoided. Very thin pilasters and cornices or haphazard wall panels with inconsistent rhythm of verticals and horizontals which are not in harmony with the overall street context to be avoided.

Finishes and Signboards

A

B

Original finish *(as in fig. A)* to be identified and preserved. All new façades to be finished in the traditional colours (white, cream, yellow ochre, terra cotta, blue, green, red or light grey) and in lime or lime-cement plaster. Roof tiles shall be Mangalore or half-round country tiles and left in the natural finish. Name boards to be sensitively fixed *(fig .B)*.

C

D

Stripping the original finish or replacing it with facing/cladding materials such as ceramic tiles *(fig. C)*, stone or synthetic plasters to be avoided. Colour schemes drastically contrasting with the typical colour schemes of the precinct to be avoided. Name boards disturbing the façades of the buildings to be avoided *(fig. D)*.

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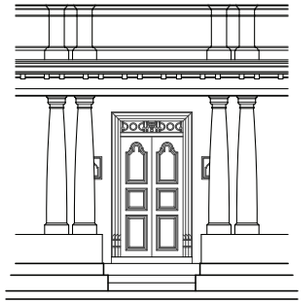
Ville Tamoule Flatnd.indd 86 15/04/10 3:02 PM



3.3 Case Studies

3.3.1 Addition – Horizontal

3.3.2 Addition – Vertical

3.3.3 Alteration

3.3.4 Adaptive Re-use

3.3.5 New construction

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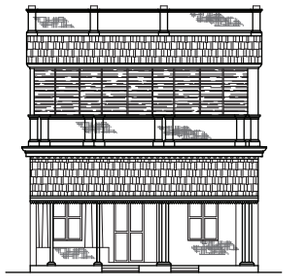
Ville Tamoule Flatnd.indd 88 15/04/10 3:02 PM

3.3 Case Studies

3.3.1 Case Study: Addition – Horizontal

Acceptable Example

105, Aurobindo Street – Residential building, Grade II B



Street elevation before alteration

Street elevation after alteration

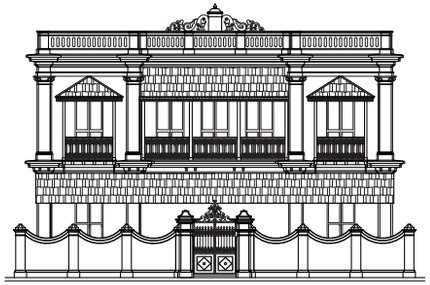
The owners of this simple Tamil type building decided to make new additions. The front portion (*thalvaram*, *thinnai* and first room) of the house was retained while on the inside a new construction was built to meet the present requirements. The first floor verandah was opened up and the street façade was renovated using the usual colours and finishes.

View before the addition

View after the addition

Insensitive Example

321, Mahatma Gandhi Road – Residential building, Grade II A



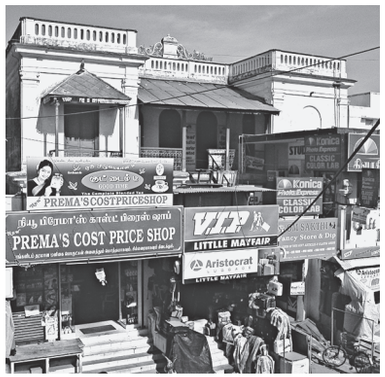
Street elevation before alteration

Street elevation after alteration

Set inside a compound wall this is one of the finest Franco-Tamil buildings. Owing to its location in a main commercial zone the front open space has been consumed by shops which are built without any consideration for the character of the main building. These shops and their haphazard name boards disturb the beautiful façade of this villa – physically and visually.

View before the addition

© IFP



View after the addition

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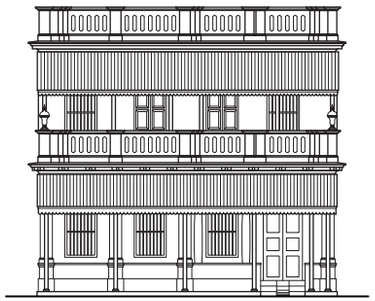
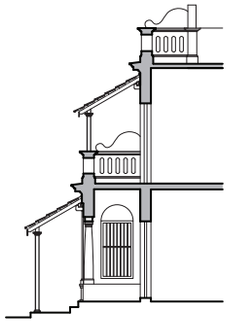
3.3.2 Case Study: Addition – Vertical

Acceptable Example

18, Iswaran Koil Street – Residential building, Grade II A



Street elevation with first floor addition



Street section

The original building was single storied with well detailed *thalvaram*, *thinnai* and parapet. To meet the requirement of the family a first floor was planned – care was taned to maintain the same façade character of the building as in the ground floor and the whole addition was set back from the main street wall by 2m so as not to disturb the street elevation.

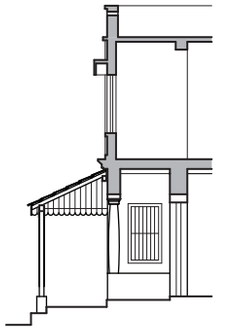
View before the FF addition

View after the FF addition

Insensitive Example

106, Sri Aurobindo Street – Residential building, Grade II B

Street elevation with first floor addition



Street section

The original building was single storied with *thalvaram* and *thinnai*. A first floor was added later – however the proportion of openings, detail of parapets, pilasters and cornices were not considered. And as the addition is right on the street (without any setback) it disturbs the overall elevation of the building and street as a whole.

View showing the FF addition

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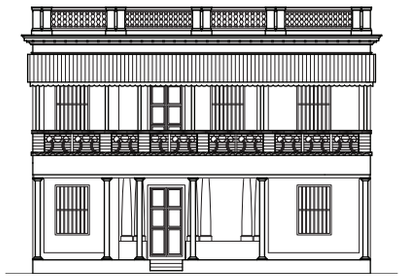
3.3.3 Case Study: Alteration

Acceptable Example

27, Iswaran Koil Street – Residential building, Grade II A

Street elevation before alteration



Proposed street elevation

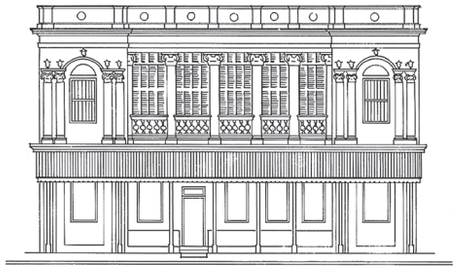
An important corner building associated with the life of Poet Bharathi – the façade had undergone some alterations when the owners changed and was for a long time in need of maintenance. The present owner has made detailed drawings of the building and proposes to restore and extend the building using authentic materials – the portion of the *thinnai* would be opened up again and the garage will be on the other street.

View before alteration

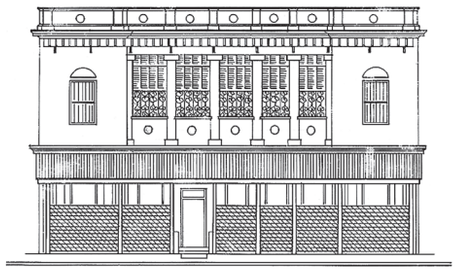
View after alteration

Insensitive Example

11, Kalatheeswaran Koil Street – Residential building, Grade II A



Street elevation before alteration



Street elevation after alteration

An excellent example of a Franco-Tamil building – this original building was altered drastically. In the process of alteration the *thalvaram* in the ground floor has been fenced and the fine details of the first floor (capitals of the columns, pots of the parapet, twin pilasters and ornamental trophies) have all been stripped off. An asbestos sunshade on steel angles has been added on the first floor.

© EFEO/FL

View before alteration

View after alteration

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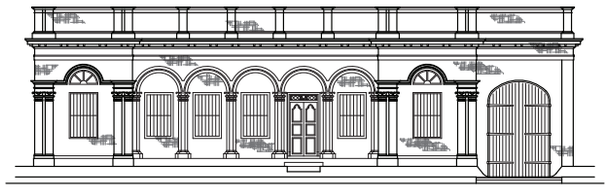
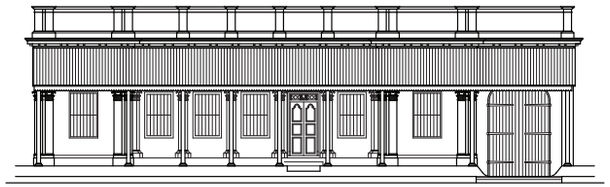
3.3.4 Case Study: Adaptive Re-use

Acceptable Example

20, Iswaran Koil Street – Bharathi Museum, Grade II A



Street elevation before re-use



Street elevation after re-use

An important building where the Poet Subramanya Bharathi had lived during his stay in Pondicherry, the original structure featuring octagonal columns with ornamental capitals and arches was in bad shape. However, owing to the historic significance, the building was repaired and re-habilitated as the Bharathi Museum. The thalvaram was redone and the façade was given an authentic face-lift.

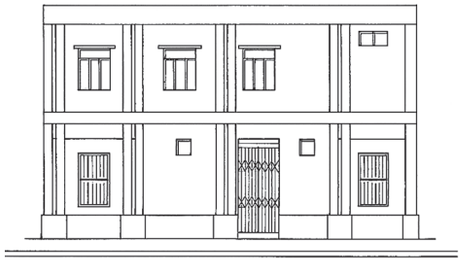
View before adaptive re-use

View after adaptive re-use

Insensitive Example

24, Jawaharlal Nehru St – Police Museum, Heritage Grade II B

Street elevation before re-use



Street elevation after re-use

A typical Tamil type building with *thalvaram*, *thinnai*, twin pilasters on the exterior and clerestory (two-storied light well) with stained glass panes on the interior, this building was later converted into a Police office and museum. Besides the unsympathetic first floor addition, the ground floor was also altered and many of the original details like the *thinnais*, cornices, twin pilasters and parapets are lost.

View after re-use

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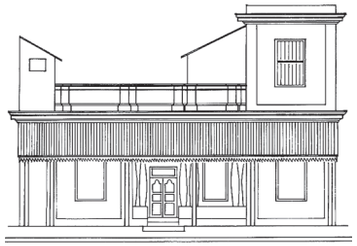
3.3.5 Case Study: New construction

Acceptable Example

19, Vysial Street – Residential building, Grade II B



Street elevation of the original building

Street elevation of the reconstructed building

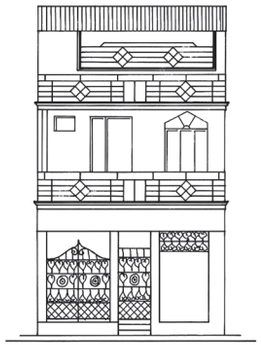
The existing building was a typical Tamil structure with temporary additions on the first floor. As the building had not been maintained properly and the area requirements of the new owner were much more, it was proposed to demolish and reconstruct. The new three-storied building was designed in such a way as to reflect the character of the previous building with *thalvaram* and wooden doors and windows.

Reconstructed building

Insensitive Example

435, MG Road – Residential building, Heritage Grade II B

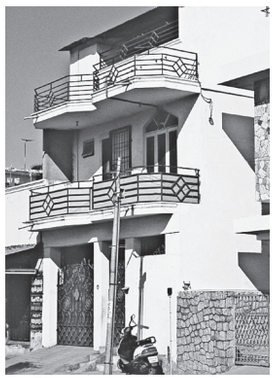
Street elevation of the original building



Street elevation of the reconstructed building

A small but well-detailed two-storied building. The owner of the building was convinced by the engineer that the old building would not last long. The building was demolished with a condition that the façade of the new building would be reconstructed in the same way as the old façade. However the new construction which has come up is totally in contrast with the original one.

Building before reconstruction



Reconstructed building

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4

ANNEXURES

Legal Protection for Heritage Buildings
Procedure for building plan approval
Statistics of Heritage Buildings
Plan showing Listed Heritage Buildings
Listing Card Samples
Façade Revision Examples
Revival of Pondicherry Heritage
Technical Suggestions for Repair and Maintenance
Glossary of Terms

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Detailed Development Plan

Without legal safeguards it is quite difficult to protect valuable heritage buildings. Hence in view of this, the Town and Country Planning Department is presently preparing a Detailed Development Plan (DDP), under the provisions of Town and Country Planning Act 1969. Enacting a separate Heritage legislation for Heritage conservation is under consideration of the Government.

Under the DDP the old town of Pondicherry within the four boulevards is proposed to be declared as a Heritage Zone comprising French and Tamil precincts. The plan envisages listing and grading the heritage buildings and notifying the same, creation of a Heritage Fund to help owners to maintain their heritage buildings, etc. Several other initiatives are also envisaged such as relaxation of certain existing by-laws, Floor Area Ratio, ground coverage, building heights, parking requirements, etc. in respect of listed heritage buildings.

A Heritage Committee with representation from the Government, NGOs and other heritage experts is proposed to be set up to scrutinize and guide all building activities and other development within the Heritage Zone.

Existing Heritage-Friendly By-laws

Until the DDP becomes operative it is necessary to strictly enforce a number of existing 'heritage-friendly' by-laws in "The Pondicherry Building By-laws and Zoning Regulations 1972". Below are listed the relevant paras:

Permission Required Before Demolition (page 8)

Chapter II, 3. Notice. -(a) "No works of construction, reconstruction, enlargement, external repair or demolition of buildings, other than routine maintenance for the proper upkeep of existing buildings, can take place without permission in writing granted by Planning Authority/Local Authority as the case may be."

Architectural Control (page 16)

Chapter II, 11. "Important note: Architectural control: All openings, projections and architectural features facing the road will be treated as major alterations and they have invariably to be approved by the Planning Authority."

Architectural Features (page 35)

"**(1) Appearance and disfigurements:** No building shall be erected which in the opinion of the Planning Authority/Local Authority constitutes a disfigurement to or an interference with the aesthetic and other amenities of the area. No construction or alterations which in the opinion of the Planning Authority will depreciate neighbouring properties or cause annoyance to residents in the neighbourhood shall be permitted. The appearance of all new buildings shall be subject to the approval of the Planning Authority/Local Authority."

"**(6) Unsightly materials:** The use of any disfigured or damaged materials which in the opinion of the Planning Authority/Local Authority concerned results in an unsightly appearance of the building shall not be allowed."

"**(9) Decoration:** Monuments, decorative and monumental foundations, bridges and viaducts, and in general the decorative and ornamental features of public gardens and squares shall be built only after the approval of the Planning Authority/Local Authority has been obtained, which in addition to drawings may demand the submission of photographs, or perspectives of the composition, so that the artistic value of the project will be more efficiently and effectively illustrated."

"**(10) Composition:** Where several façades constitute architectural composition painting and other treatment shall only be allowed where no aesthetic disfigurement can result to the composition as a whole."

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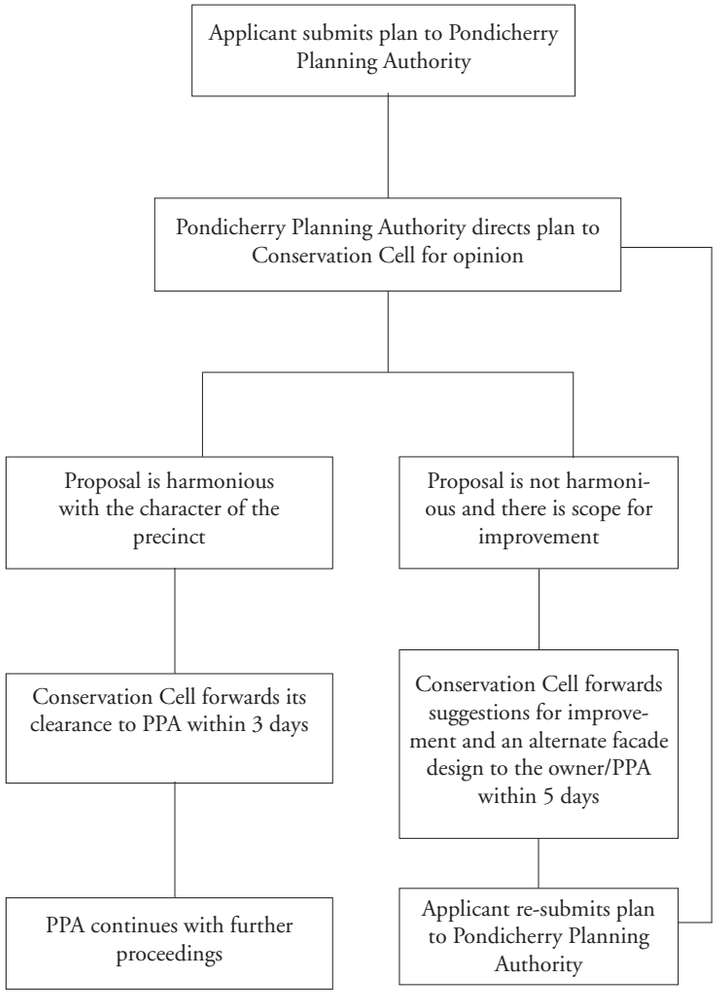
4.2 Procedure for Building Plan Approval

Procedure for building plan approval of heritage buildings or buildings within the Heritage Precinct:



4.3 Statistics of Heritage Buildings

List of Heritage Buildings within the French and Tamil quarters of the old town of Pondicherry

	1995	*2001*	*2003*
Tamil Town	**1507**	**1031**	**916**
Grade I		7	5
Grade II A		110	94
Grade II B		360	294
Grade III		554	523
French Town	**300**	**283**	**279**
Grade I		7	7
Grade II A		96	97
Grade II B		135	126
Grade III		45	49
Total	**1807**	**1314**	**1195**

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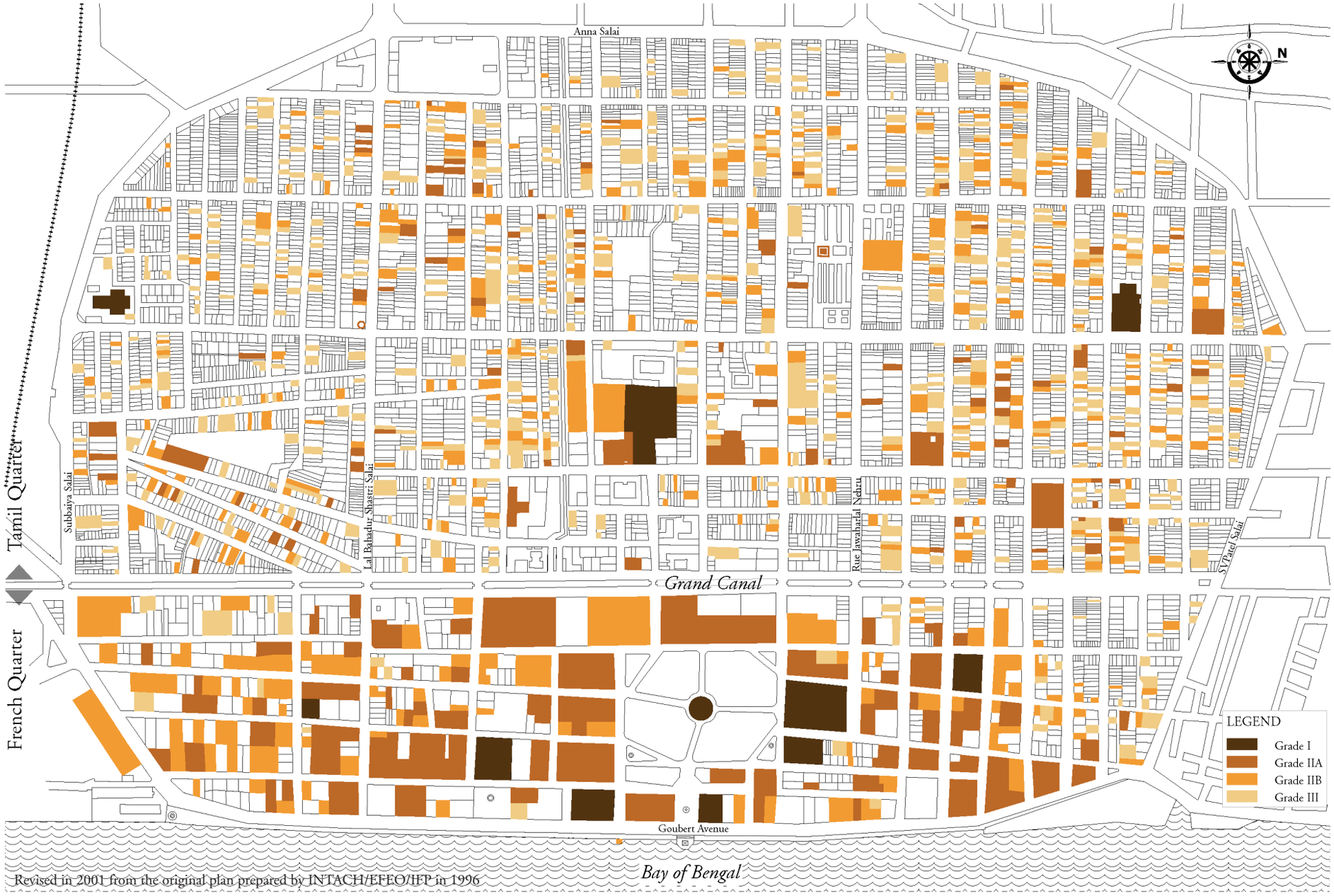
4.4 Plan showing Listed Heritage Buildings



Revised in 2001 from the original plan prepared by INTACH/EFEO/IFP in 1996

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4.5 Listing Card Samples

EFEO / IFP — **Protected Buildings in the Boulevard Area of Pondicherry (French Town)** — INTACH

Street Name : Ananda Rangapillai
House no. :
Building name : Raj Nivas
Ownership : Govt.
Town sector : FT
Estimated date : late 18th
Use : ☐ residential ☐ commercial ☐ office ☐ institutional ☐ hotel/guest house ☐ other
Occupancy : ☐ owner ☐ tenant ☐ govt. ☐ unknown

Setting :
- ☑ street corner
- ☑ street alignment
- ☑ isolated in the plot

Storeys :
- ☐ GF only
- ☑ 2 storeys
- ☐ more than 2 storeys

Type :
- ☐ Tamil house
- ☑ French house
- ☐ other

Tamil features :
- ☐ ext. veranda (tinnai)
- ☐ street lean- to (thalvaram)
- ☐ inner courtyard
- ☐ wooden columns
- ☐ woodcarved door
- ☐ woodcarved capitals/brackets
- ☐ balcony
- ☐ pilasters
- ☐ tiled roof
- ☐ ornamental features

European features :
- ☑ entrance gate
- ☑ twin pillared gate
- ☑ compound wall
- ☐ pediment
- ☑ entrance courtyard
- ☑ interior courtyard
- ☑ arcade
- ☑ colonnade
- ☑ pilasters
- ☑ pilasters with capital

- ☑ columns with capital
- ☑ balcony
- ☐ iron work/brackets
- ☑ arched windows
- ☐ flat windows
- ☑ cornice mouldings
- ☑ parapet
- ☑ arched staircase
- ☑ balustrades
- ☑ ornamental features

State of preservation : Good

Grading : architectural I / historical I / archaeological

Ref-Drawings :
Ref-photos : IFP/11765-3,11797-1,9523-5
INT/c/2-12,12-35

Remarks :
Originally office of the French East India Company.Several plans for its reconstructions were prepared by the French Engineer Bourcet around 1765.Today the official residence of the Lieutnant Governer of Pondicherry .

Listing Card - Grade I Building

EFEO / IFP — **Protected Buildings in the Boulevard Area of Pondicherry (Tamil Town)** — INTACH

Street Name : Kazy
House no. : 75(old no.65)
Building name :
Ownership : Pvt.
Town sector : TT
Estimated date : 1890-1900
Use : ☑ residential ☐ commercial ☐ office ☐ institutional ☐ hotel/guest house ☐ other
Occupancy : ☑ owner ☐ tenant ☐ govt. ☐ unknown

Setting :
- ☐ street corner
- ☑ street alignment
- ☐ isolated in the plot

Storeys :
- ☐ GF only
- ☑ 2 storeys
- ☐ more than 2 storeys

Type :
- ☑ Tamil house
- ☐ French house
- ☐ other

Tamil features :
- ☑ ext. veranda (thinnai)
- ☑ street lean- to (thalvaram)
- ☐ inner courtyard
- ☑ wooden columns
- ☑ woodcarved door
- ☑ woodcarved capitals/brackets
- ☑ balcony
- ☑ pilasters
- ☐ tiled roof
- ☑ ornamental features

European features :
- ☐ entrance gate
- ☐ twin pillared gate
- ☐ compound wall
- ☐ pediment
- ☐ entrance courtyard
- ☐ interior courtyard
- ☐ arcade
- ☐ colonnade
- ☐ pilasters
- ☑ pilasters with capital

- ☑ columns with capital
- ☐ balcony
- ☑ iron work/brackets
- ☑ arched windows
- ☑ flat windows
- ☑ cornice mouldings
- ☑ parapet
- ☑ arched staircase
- ☐ balustrades
- ☐ ornamental features

State of preservation : Good

Grading : architectural IIA / historical / archaeological

Ref-Drawings : PY
Ref-photos : FL249-7A,14A
INT/c/28-31

Remarks :

Listing Card - Grade II A Building

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4.5 Listing Card Samples

EFEO / IFP — **Protected Buildings in the Boulevard Area of Pondicherry (French Town)** — INTACH

Street Name : Desbassayns de Richemont
House no. : 9
Building name :
Ownership : Ashram
Estimated date : 1880-1890
Town sector : FT
Use : ☑ residential ☐ commercial
Occupancy : ☑ owner ☐ tenant ☐ govt. ☐ unknown ☐ office ☐ institutional ☐ hotel/guest house ☐ other

Setting :
☐ street corner
☑ street alignment
☐ isolated in the plot

Storeys :
☐ GF only
☑ 2 storeys
☐ more than 2 storeys

Type :
☐ Tamil house
☑ French house
☐ other

Tamil features :
☐ ext. veranda (tinnai)
☐ street lean- to (thalvaram)
☐ inner courtyard
☐ wooden columns
☐ woodcarved door
☐ woodcarved capitals/brackets
☐ balcony
☐ pilasters
☐ tiled roof
☐ ornamental features

European features :
☑ entrance gate
☐ twin pillared gate
☐ compound wall
☐ pediment
☑ entrance courtyard
☐ interior courtyard
☐ arcade
☑ colonnade
☑ pilasters
☐ pilasters with capital
☑ columns with capital
☐ balcony
☐ iron work/brackets
☑ arched windows
☐ flat windows
☑ cornice mouldings
☐ parapet
☑ arched staircase
☐ balustrades
☐ ornamental features

State of preservation : Fair

Grading : architectural IIB
historical
archaeological

Ref-Drawings :
Ref-photos : FL 253-20,21,MK 1-4A
INT/c/3-27,19-3

Remarks :
The old photograph shows trophies on the pillars which were later removed.

Listing Card - Grade II B Building

EFEO / IFP — **Protected Buildings in the Boulevard Area of Pondicherry (Tamil Town)** — INTACH

Street Name : Bader sahib
House no. : 1
Building name :
Ownership : Pvt.
Estimated date : 1930-1940
Town sector : TT
Use : ☑ residential ☐ commercial
Occupancy : ☑ owner ☐ tenant ☐ govt. ☐ unknown ☐ office ☐ institutional ☐ hotel/guest house ☐ other

Setting :
☑ street corner
☑ street alignment
☐ isolated in the plot

Storeys :
☐ GF only
☑ 2 storeys
☐ more than 2 storeys

Type :
☑ Tamil house
☐ French house
☐ other

Tamil features :
☐ ext. veranda (thinnai)
☑ street lean- to (thalvaram)
☐ inner courtyard
☑ wooden columns
☑ woodcarved door
☐ woodcarved capitals/brackets
☐ balcony
☐ pilasters
☐ tiled roof
☐ ornamental features

European features :
☐ entrance gate
☐ twin pillared gate
☐ compound wall
☐ pediment
☐ entrance courtyard
☐ interior courtyard
☐ arcade
☐ colonnade
☐ pilasters
☐ pilasters with capital
☐ columns with capital
☐ balcony
☐ iron work/brackets
☐ arched windows
☐ flat windows
☑ cornice mouldings
☑ parapet
☐ arched staircase
☐ balustrades
☐ ornamental features

State of preservation : Fair

Grading : architectural III
historical
archaeological

Ref-Drawings :
Ref-photos : INT/c/32-16

Remarks :
FF is a later addition

Listing Card - Grade III Building

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4.6 Façade Revision Example – French Town

Central Excise Building, *44 Goubert Avenue*

West Elevation

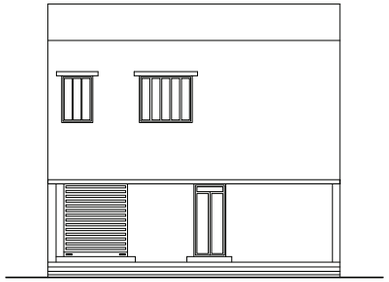
Façade proposed by the owner/architect

Suggested alternative façade - with simplified French character

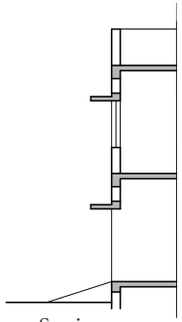
Annexe Flatnd.indd 102 07/04/10 11:12 AM

4.6 Façade Revision Example – Tamil Town

Residential building, *4 Iswaran Dharmaraja Koil Street*



Front Elevation



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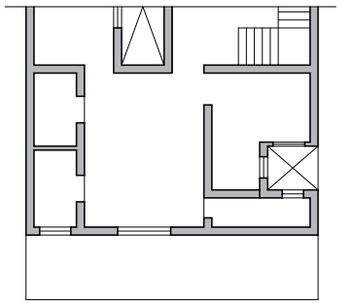
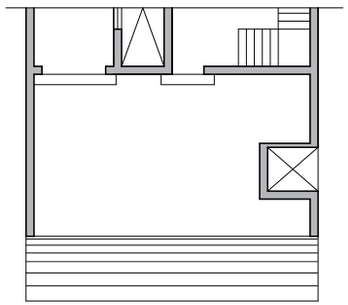


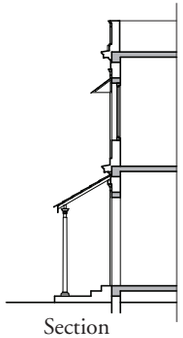
First Floor Plan



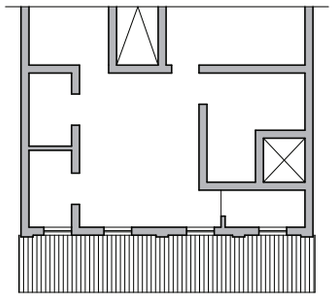
Ground Floor Plan

Façade proposed by the owner/architect

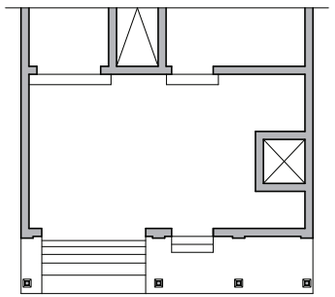
Front Elevation



Section



First Floor Plan



Ground Floor Plan

Suggested alternative façade – with simplified Tamil character

Annexe Flatnd.indd 103 07/04/10 11:12 AM

11, rue Saint Louis – *modern extension in keeping with the traditional character of the precinct*

48, Goubert Avenue – *well maintained, recently renovated building*

16, rue du Bazar St Laurent – *new building reflecting the French character*

International School – *modern extension with the traditional character of the precinct*

5, rue de la Caserne – *restoration of existing building and addition of new blocks*

French Town

Examples of restorations and sensitive new constructions

57, rue Suffren – *structural consolidation and restoration of the existing building*

Sri Aurobindo Ashram Press, rue Dumas – *extension block with harmonious façade treatment*

2, Jawaharlal Nehru St – *new construction reflecting the traditional French characters*

7, rue Lally Tollendal – *new three-storied building reflecting the French character*

7, rue Saint Louis – *annexe block with harmonious façade treatment*

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77-85, Vysial Street – *renovation of the façades of heritage buildings by the Municipality of Pondicherry (part of Asia Urbs Programme)*

23, Montorsier Street – *well maintained, recently renovated building*

72, Kazy Street – *well maintained, recently renovated building*

Bharathi Museum, 20, rue Iswaran Koil – *repair and rehabilitation of the historic heritage building*

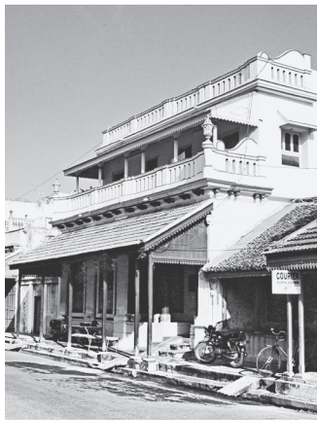
12, rue Louis Pragassin – *well maintained, recently repaired and renovated building*

Tamil Town

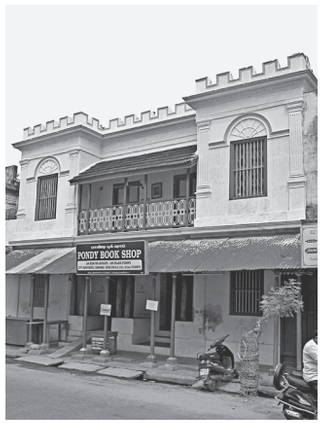
Examples of restorations, re-use and sensitive new constructions

26, rue Candappa Moudaliar – *old house converted into a furniture shop*

92, Perumal Koil Street *(under construction)* – *new building reflecting the traditional Tamil character*



18, Iswaran Koil Street – *sensitive addition of first floor*



400, Bharathi Street – *old building renovated and used as a book shop*

Soucilabhai School, 48, Vysial St – *facade restoration using old materials and finishes by the Municipality of Pondicherry (part of Asia Urbs Programme)*

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4.8 Technical Suggestions for Repair and Maintenance

General

Often the heritage buildings are basically in sound condition, and are merely suffering some leaks, cracks, crumbling plaster which is generally caused by neglect and lack of regular maintenance. In most cases it is possible to renovate and extend buildings for modern usage, by providing proper electrical supply, plumbing and air conditioning without sacrificing the quality of architecture and at reasonable costs. But sometimes the owners are misled by unscrupulous or ignorant builders that their houses are unsafe and need to be destroyed and rebuilt.

Generally, repairing old buildings works out cheaper than demolishing and building new structures. The need for repairs could also be minimised by adopting simple preventive-maintenance strategies. In either case (repair or maintenance) minimum intervention should be involved, and during the process it should be observed that besides preserving the essential character of the building the original building materials should also be preserved. This is important because the use of new design elements or construction materials usually complicate the situation in terms of compatibility and authenticity.

Some points to be remembered while undertaking repair and maintenance of Heritage buildings:

Half demolished gate,
5, Caserne Street

The same gate reconstructed

1. Cracks in walls

The cracks in walls are mainly caused by two common factors – plant growth and/or settlement of foundations.

a) Plant Growth

ust like a human being needs a periodical health check-up and a car needs periodical servicing, a building also needs periodical maintenance – preferably annual – most effective is pre-monsoon. This consists of cleaning the roof of all the accumulated dried-up moss, leaves and the like, (a heap of such mass is a very fertile ground for plant growth.) Plants, as they grow, cause cracks in walls and in the roofs.

Then of course one has to pull out all the plants that have already taken root. Plants less than a year old are easily uprooted and rarely ever grow again from the leftover roots. However, plants older than a year need a little more effort. Where roots have gone deep, use of acid is not really a solution since the acidity does not get carried through to the entire root ends and the plant regrows from these roots. Instead, snip the plant's main stem leaving a stub of about 3 - 5 cm. Make a stiff paste of pure asafoetida (in Tamil *perungayam* – available in *nattu marindu* shops). Shape it into a ball roughly the size of the stem and put it on the plant stub like a cap. Cover the ball with a piece of cloth and moisten it every day for about seven days. Care has to be taken to see that one does not start providing sustenance to plant by letting water seep to the roots. Most of the young plants need only one such application but older plants may need the above treatments to be repeated every two to three weeks with fresh asa foetida till the stem dries up.

b) Settlement of foundations

Mostly caused by weakening of the sub-stratum due to water seepage. This can again be due to percolation of rainwater/wash water from the sides of the wall. All depressions/pools adjacent to your wall - be it from your side or from the neighbour's side – should be cleared and filled up. However, the more common cause is seepage of water into the sub-stratum from rusted incoming G.I water supply lines (most of the old houses have G.I water supply lines which were laid 30/40 years back). The preferable solution will be replacing all such lines by PVC pipes.

Once the root cause has been attended to the cracks should be repaired by making a v-chase and plastering with lime mortar (1:2).

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2. Cracks in roofs

Generally most buildings have 'Madras Terrace' roof, floor slabs made of bricks-on-edge stuck together with lime mortar and resting on wooden beams and rafters. Cracks in such roofs can be attributed to two principal causes, namely plant growth and weakening of the beams and rafters supporting the roofs. The plant growth has been discussed earlier. The weakening of the beams and rafters can be due mainly to one of the three following factors:

a) The member is too old and has lost its load carrying capacity and as a result has sagged excessively causing the roofing mass to crack.

In this case the remedy lies in replacement of the defective member – either in timber or as pre-cast concrete beam. One has to check each beam or rafter by tapping and observing by sound if the member has cavities. The choice of material has to be made after due consideration – concrete beams, if not made properly, can rust in coastal weather conditions; teak wood beams are more expensive but tend to last longer. In case of timber, provide aeration slits on the sides.

b) Supported ends of the member have disintegrated and have sagged

In this case, if the damage is not too serious, prevention lies in re-opening of the slits that were originally there on either side of the beam/rafter. This will help in aeration and will drastically retard the decaying process. However, if the damage is serious the remedy once again lies in replacement of that member or providing an additional relieving cross beam at wall.

c) Termite attack

Both, preventive and remedial measures consist of anti-termite treatment, most effective when carried out at plinth level to the full depth of the wall by a reputed pest control firm.

3. Rising damp

Manifests itself in the form of wet wall patches up to a height of 1 to 1.2 metres from the ground floor, and over a period of time causes decay of the lime plaster. This problem is mainly due to the fact that there is no damp proof course in the walls at the plinth level in old buildings. However, there is no easy way to completely solve this problem, but the problem can be minimised. It is incorrect to strip such plaster and re-plaster the area in cement mortar. Cement mortar plaster does not breathe as well as lime plaster. It traps vapour and water and prevents evaporation of moisture. It is corroborated by the fact that originally applied lime plaster decayed after serving probably for 100 years whereas replacement cement mortar already starts showing problems in 8/10 years. In any case, even if cement plaster has been used in patches as replacement, the lime plaster surrounding such a patch starts showing problems almost immediately. Replacement by cement plaster has another major drawback that because of its non-breathing nature, the rising damp keeps accumulating within the wall thickness and more often than not may cause compression cracks. Therefore, all re-plastering should be in lime plaster. Another solution is to provide a groove (on the exterior) between the plinth and the superstructure as it is found to be effective in preventing the rise of moisture from the ground and hence the salt action.

It is also important not to paint the walls with the modern synthetic paints available in the market as these too may not allow trapped moisture to escape. Better to go in for traditional lime wash.

4. Roof leakages

Some of the above measures will already take care of roof leakages. Best practice is to redo the traditional lime terracing, with adequate slopes, where necessary and cover it with pressed clay tiles. Resorting to modern materials like tar felt, synthetic sheets or waterproof paints will not serve for long and may even aggravate the problem after a few years. Minor cracks can be repaired by cutting a v-groove and filling it with lime or lime-cement mortar. Alternatively one can also repair cracks with a polysulphide sealant. If tar felt or similar material has been employed and is causing problems, it would be best to remove it completely and treat the terrace as mentioned above.

5. Use of Portland cement

Portland cement is not designed for use in mortars or plaster on historic buildings and its application is usually less preferred in the case of old buildings. It is too strong in compression, adhesion and tension and hence is not compatible with the elastic and plastic materials used in historic buildings. Further it has high thermal conductivity and inferior insulation properties compared to the traditional materials of the old buildings. Unless Portland cement is properly used it can cause severe damage to historic buildings.

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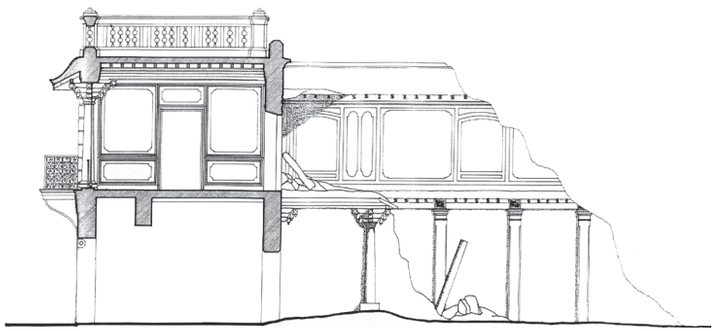
6. Iron members

The old buildings here feature wrought iron members (brackets, railings, grills) owing to their high resistance to sea corrosion. However, they do rust over time and cause cracks in the masonry wall in which they are fixed. Solution would be to de-rust them and treat them with anti-corrosive paints (cold zinc or epoxy paints) or replace them with new members. However one has to ensure that these are also properly treated against corrosion.

7. Conclusion

However for all the above measures it is important to find a mason, contractor, engineer or architect knowledgeable and experienced in traditional building techniques. As in all things experience is invaluable for good results.



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4.9 Glossary of Terms (English-English-Tamil)

Adaptive Re-use old building repaired and used for other purpose பழைய கட்டிடம் சீரமைக்கப்பட்டு வேறு தேவைக்கு பயன்படுத்தப்படுதல்

Arcade series of arches தொடர்ச்சியான வளைவுகள்

Balusters vertical members of a parapet wall கைப்பிடிச் சுவற்றின் குறுக்கு முட்டுகள்

Baroque classical European style with excessive ornamentation அதிகப்படியான வேலைப்பாடுகள் நிறைந்த பழைய ஐரோப்பிய பாங்கு

Boulevard broad avenue lined with trees மரங்கள் நிறைந்த அகன்ற சாலை

Brackets supporting members fixed to the wall சுவற்றில் இணைக்கப்பட்டுள்ள முட்டுகள்

Bye-laws rules governing the building construction activities of a place ஒரு இடத்தின் கட்டிடப் பணிகள் சம்பந்தப்பட்ட சட்டதிட்டங்கள்

Cantilevers extension of slab without support முட்டின்றி நீண்டிருக்கும் தளப்பகுதி

Chajjahs sunshades சாளரக் காப்பான்

Cladding sticking of tiles etc. on the wall சுவற்றில் பதிக்கப்படும் ஆடம்பர ஓடுகள்

Clerestory skylight/lightwell above the courtyard ளியிற்காக அமைக்கப்படும் உயர்ந்த கூரை (முற்றத்திற்கு மேல்)

Colonnade series of columns தொடர்ச்சியான தூண்கள்

Compatibility acceptability of the nature of one material to another ஒரு பொருளுக்கும் மற்றொரு பொருளுக்கும் இடையேயுள்ள பொருத்தம்

Conservation preservation/maintenance பாதுகாத்தல்/ பராமரித்தல் ஊழளெநசஎயவழைஎ ஊநடட பாதுகாப்புக் குழு

Coping top of the parapet கைப்பிடிச் சுவற்றின் ஓரத்திலுள்ள உருட்டு

Corbel projecting layers of bricks ஒன்றன்மேல் ஒன்றாக நீட்டிக்கொண்டிருக்கும் செங்கல் வரிசை

Cornice horizontal ornamental projection at floor/roof level வேலைப்பாடு நிறைந்த கூரைத்தளப் பிதுக்கம்

Coverage percentage of plinth area in a plot மனையிலுள்ள அடித்தளத்தின் பரப்பளவு விகிதம்

Documentation research/report ஆய்வு/ஆவணம்

Domestic Architecture – வீடுகளின் வடிவமைப்பு

Dummy Columns non-structural columns பாரம் தாங்காத தூண்கள்

Eavesboard wooden board fixed to the end of rafters மரக்கைகளின் முடிவில் இணைக்கப்பட்டுள்ள மரப்பலகை

Encroachment illegal occupation of a space முறையற்ற ஆக்கிரமிப்பு

Façade front of a building கட்டிடத்தின் முகப்பு

FAR floor area ratio மனையின் பரப்பளவுக்கும் வீட்டின் பரப்பளவுக்கும் (மாடிகள் உட்பட) உள்ள விகிதம்

Fenestration ornamental detail of exterior wall வெளிச்சுவற்றிலுள்ள வேலைப்பாடு

Fissures cracks விரிசல்கள்

Frontage extent of the building along the street வீதியை ஒட்டிய வீட்டின் முன்பகுதி

Glazing glass surface கண்ணாடி பரப்பு

Grading classification of heritage buildings பாரம்பரிய வீடுகளின் தரம்

Headroom staircase exit on terrace மாடிப்படி அறை

Heritage inherited culture பாரம்பரியம்/மரபு வழி கலாச்சாரம்

Heritage, Architectural கட்டிடக்கலை பாரம்பரியம்

Homogenous similar ஒரே மாதிரியான

Hybrid mix of two different styles இருவேறு பாங்குகளின் கலவை

Incentives encouragement, stimulation சலுகைகள்

Lintel support above door or window opening கதவு/ஜன்னல் மேலுள்ள முட்டு

Listing list of Heritage buildings பாரம்பரிய வீடுகளின்பட்டியல்

Livestock cattle மாடுகள்

Loopholes holes in the parapet கைப்பிடிச் சுவற்றிலுள்ள ஓட்டைகள்

Louvres operable wooden horizontal blades of a window shutter ஜன்னல் கதவிலுள்ள இயக்கக்கூடிய மர பட்டைகள்

Madras Terrace type of local roof மெட்ராஸ் தளக் கூரை

Mandatory compulsory கட்டாயம்

Milieu character of a place இடம்/சூழல்

Mutram central courtyard of Tamil houses முற்றம்

Pastiche stick-on elements செயற்கையான ஒட்டு வேலைப்பாடு

Pediment triangular portion above gate/window கதவு/ஜன்னல் மேலுள்ள முக்கோண வடிவ பகுதி

Piers freestanding columns தூண்கள்

Pilaster vertical projection to divide the plain surface of a wall சுவற்றின் வெற்று பரப்பை பிரிப்பதற்கான பிதுக்கம்

Pitched roof sloped roof சரிவான கூரை

Portal entrance வாயில்

Pot balusters Pot shaped balusters made of terracotta களிமண்ணால் செய்யப்பட்ட கூஜா/பன்னீர் செம்பு வடிவ முட்டுகள்

Precinct area பகுதி

Proportion ratio of length, width, height நீளம், அகலம், உயரம் ஆகியவற்றின் விகிதம்

Reconstruction demolishing and rebuilding as before இடித்தபின் மீண்டும் அதே அமைப்பில் கட்டுதல்

Relief decorative plaster work பூச்சு வேலை

Setback open space along any side of new buildings புதிய கட்டிடத்தின் ஓரங்களில் உள்ள இடைவெளி

Soffit underside of an arch/beam/staircase/balcony வளைவு/ உத்திரம்/படிக்கட்டு/உப்பரிகை ஆகியவற்றின் அடிப்பகுதி

Springing line starting point of an arch ஆர்ச்/வளைவு தொடங்கும் இடம்

Symmetrical equal on either side இரு பக்கங்களும் சமமான

Thalvaram streetside veranda of Tamil houses covered with Mangalore tiles தமிழ் வீடுகளின் தாழ்வாரம்/கொரடு

Thinnai raised platform near the entrance door for sitting திண்ணை

Transition space space between outside (street) and inside (house) வெளியிடத்திற்கும் (வீதி) உள்ளிடத்திற்கும் (வீடு) இடையே உள்ள இடம்

Transparent enclosure compound wall through which the building can be seen கட்டிடம் தெரியும்படியான வெளிச்சுவர்

Vaastu Vaastu Shastra, an ancient treatise on architecture வாஸ்து சாஸ்திரம்

Vernacular native பாரம்பரியமான/தொன்றுதொட்டு வந்துள்ள

Villa mansion with garden தோட்டத்துடன் கூடிய பெரிய வீடு

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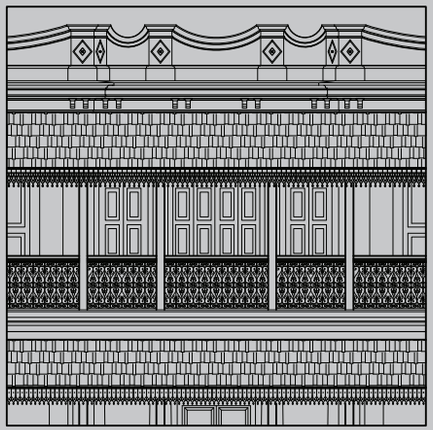

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There are very few monumental buildings in Pondicherry.
Its architectural character is a result of hundreds of French and Tamil houses that create the 'milieu'.
This quality of the streetscapes is today threatened by the disappearance of traditional houses, especially in the Tamil part.
If this heritage is to be protected, then, each house counts ...

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