THE
ARCHITECTURAL HISTORY OF
VENICE

Deborah Howard
THE ARCHITECTURAL HISTORY OF VENICE

Revised and enlarged edition

Deborah Howard

This book is the indispensable guide to the history of architecture in Venice, encompassing the city’s fascinating variety of buildings from ancient times to the present day. Completely updated, this edition of Deborah Howard’s classic volume (first published in 1980) is filled with splendid illustrations, most of them new and many reproduced in full colour. Howard writes in a highly accessible style, inviting those who visit Venice in person, armchair travellers, and all students of Venetian art and architecture to look more closely at the unique architecture of one of the world’s most beautiful cities.

Believed to have been founded by refugees at the fall of the Roman Empire, Venice became a semi-independent outpost of Byzantium and eventually an independent Republic. The city flourished for centuries as a trading centre between east and west, and its visual traditions were continually enriched by the exposure to outside influences. When the long-lasting Republic fell to Napoleon in 1797, many attempts at modernization followed, especially under nineteenth-century Austrian administration. Howard traces the entire evolution of Venice’s architecture, placing special emphasis on the political, social and economic framework that supported it. She highlights the achievements of individual architects from the Renaissance onwards, including Sansovino, Palladio, Longhena, Massari, Selva and others. Throughout the book, the author stresses the visual qualities of the buildings themselves, enhancing our appreciation of individual structures built in Venice and providing a spectacular view of the city that inspired their creation.
The Architectural History of Venice

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Deborah Howard

The Architectural History of Venice

Revised and enlarged edition

with
new photographs
by Sarah Quill and Deborah Howard

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New Haven & London
This book is for
Malcolm Longair

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Frontispiece Library of St Mark, south-east corner, with the Zecca (Mint)
on the left and the column of St Theodore on the right
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Preface to the Revised and Enlarged Edition

When this book was first published in 1980 it was the only modern treatment of the subject in any language. Although it adopted the conventions of a traditional stylistic history, its emphasis on the historical context was unusual at the time. A corrected paperback edition followed in 1987. Since then the appearance of two other volumes on the same theme has provided informative and stimulating alternatives. These are Ennio Concina’s A History of Venetian Architecture (1998), originally published in Italian as Storia dell’architettura di Venezia (1995), and Richard Goy’s Venice: The City and its Architecture (1997).

Yet neither of these works is small enough to fit easily into a student’s knapsack or a traveller’s shoulder bag. Convinced that The Architectural History of Venice still performs a valuable role as a basic and portable introduction, I therefore decided to update the text of my own book and add colour illustrations. This has involved assimilating a huge amount of recent scholarship, especially into the footnotes, as well as adding a short account of the last two decades. Nevertheless, I have tried to retain the clarity, concision and strong visual emphasis of the original. An article in Country Life on bars and restaurants in Venice a few years ago recommended The Architectural History of Venice as café-table reading. My greatest hope is that the new edition will offer an even more enticing accompaniment to a drink on the Zattere.

I have accumulated many debts in the process of revision. Thanks are due to Frederick Ilchman who has thoughtfully kept me informed of all the errors he noticed in the previous edition. Margaret D’Evelyn and Andrew Hopkins have been characteristically generous with bibliography and information. Giorgio Gianighian and Pallina Pavanini most kindly scrutinized my chapter on ‘The Medieval City’ and offered numerous suggestions, but they are, of course, not responsible for any misconceptions that may remain. Hugo Blake and Norman Hammond kept me up to date with new archaeological investigations. At the other end of the time span, I am grateful for advice on investigating the latest buildings to Gianni Fabbri, Phil Tabor and Wolfgang Wolters. Frances, Lady Clarke has been a mine of information on many Venetian issues.

1 Detail of fig. 36
My students have proved wonderful critics, even when they were unaware of it. While at Edinburgh University, for example, I was amused to read in an examination script that 'Sansovino was the first architect to work in three dimensions', later to realize that the sentence was almost word-for-word my own! I have learned most of all from those doing research on Venetian themes, those who will carry the subject forward into the twenty-first century.

I am grateful to Michael Clifford at the Faculty of Architecture and History of Art in Cambridge, and to Cameraphoto in Venice, for help in assembling new photographic material. Delia Gaze has been a meticulous and expert copy-editor.

My greatest debts are to three people. First of all I owe an immeasurable debt to Sarah Quill for her indefatigable efforts in re-photographing many of the Venetian buildings illustrated in the book. She has been constantly supportive, enthusiastic and generous with her own great knowledge of the subject. Our collaboration goes back a long time, for she took many of the photos for the first edition. Secondly I am immensely grateful to Gillian Malpass at Yale University Press for her dedicated support and guidance throughout the project. Finally, as ever, I wish to express my deep gratitude to my husband, Malcolm Longair, who stayed up for too many late nights to scan the original book to provide me with a working text on computer. His constant support and encouragement have been inspirational. Like the previous two editions this book is dedicated to him with affection and gratitude.

Note on illustrations All buildings illustrated are in Venice, unless otherwise stated.
Preface to the First Edition

Most writers on Venetian art fall into one of two categories – those who appear seldom to have been to Venice, and those who seem never to have been anywhere else. I have tried to avoid both these pitfalls, but I admit that I would never have undertaken to write this book but for my own great affection for the city. Indeed, I like to think of Venice as my second home. The scope of this book has been restricted to Venice itself, rather than the whole of the Veneto, in order to keep the book to a manageable length.

I am grateful to Michael Stephenson who first had the idea for this book, and to his successor as Editor, Paula Shea, whose excellent combination of toughness and understanding has sustained me through the various stages of preparation.

I should like to thank the directors and staff of the following archives and libraries for their assistance and co-operation during the preparation of the manuscript: Biblioteca Marciana, Venice; Biblioteca Correr, Venice; Biblioteca della Fondazione Cini, Venice; Archivio di Stato, Venice; University Library, Cambridge; library of the Faculty of Architecture and History of Art, Cambridge; Marquand Library, Princeton; library of the Institute for Advanced Study, Princeton; and the libraries of the Warburg and Courtauld Institutes, London.

Among the friends and colleagues who have generously shared their ideas and helped me to sort out individual problems I should mention in particular Adolfo Bernardello, Miklos and Serena Boskovits, Bruce Boucher, Susan Connell, Jane Glover, Professor Michelangelo Muraro, David and Ellen Rosand, and Juergen and Anne Schulz. I owe a continuing debt to Howard Burns, who first introduced me to Italian architecture as an undergraduate, and who has provided inspiration and guidance ever since. Warm thanks are due to Francesco and Maria Grazia Bertola for their generous hospitality in Venice.

I should like to express my deep gratitude to A. F. Kersting and Sarah Quill, who have taken most of the photographs for this book, and who have both gone to great lengths to satisfy the most awkward requirements. I am grateful to Linda Auerbach, Paula Bozzay, Louise Cooper,
Molly Jones and Denise Newman who have helped with typing the manuscript at various times.

My two children, Mark and Sarah, have been far more tolerant and co-operative than one could possibly expect of them at such a young age (the book was started on Mark’s first birthday and completed shortly before Sarah’s first birthday). I owe a great deal to Janet Titley and the Ladybird Day Nursery at Fenstanton for providing such happy, homely environments for them while much of the work was done. My husband, Malcolm Longair, has given up countless days of his very precious time to babysitting, reading the various drafts of the text, listening to my ideas, and helping to prepare maps and plans. Without his unwavering support and encouragement this book would never have been started, let alone completed. My debt to him is immeasurable.
Glossary of Architectural Terms and Venetian Words

aedicule  the framing of a door, window or other opening with columns or pilasters supporting an entablature or pediment

albergo  originally the whole building of a Venetian scuola; later restricted to the small meeting room on the upper floor

altana  wooden platform on the roof of a Venetian house

androne  large hall on the ground floor of a Venetian palace or scuola

apse  a vaulted semicircular or polygonal recess, usually at the end of a chancel or chapel

atrium  originally the inner, open-air court of a Roman house; later a covered entrance hall

balustrade  a row of short pillars topped by a railing, for example, surrounding a balcony

baptistery  a chapel in or near a church, where baptisms are carried out

barrel vault (also called tunnel vault)  a continuous semicircular vaulted roof

basket capital  a capital decorated with drilled carving to resemble a wicker basket or lacework; typical of Byzantine tradition

bastion  a projection at the angle of a fortification, from which the adjoining walls can be defended by covering fire

bay  the division of a wall between two columns, piers or buttresses

biforate window  a window divided vertically by a column to form two separate, arched openings

blind arcade  a purely decorative arcade attached to a wall surface

calle  in Venice, a narrow street or alley

campanile  a bell tower

campo  (literally a field) the open space in the centre of a Venetian parish

capital  the head of a column or pillar

casa fondaco  a characteristic type of early Veneto-Byzantine merchant's family palace, with two superimposed waterfront arcades flanked by corner blocks or towers

casemate  a vaulted room within the walls of a fortress, with openings for firing and lookout
chancel section at the east end of a church containing the main altar and reserved for the clergy
clerestory the upper walls of the nave of a church, pierced by windows
Composite one of the orders of classical architecture, combining features of the Ionic and Corinthian orders
corbel a block projecting from a wall and supporting a beam or the base of an arch
Corinthian one of the five orders of classical architecture, characterized by a capital decorated with acanthus-leaf ornament
cornice the projecting section at the top of an entablature
crenellation defensive rooftop parapet with alternating raised elements and spaces
crochet carved ornament, usually leaf shaped, projecting from the sides of a Gothic pinnacle
cupola a dome, usually fairly small in size
cusp the point at the meeting of two curves, especially in Gothic tracery
dentilled moulding a row of square blocks decorating the underside of a cornice
diaper pattern type of wall decoration composed of adjoining diamond shapes
dog-tooth moulding a type of zigzag carved stone ornament found in Byzantine and Romanesque architecture
Doric one of the classical orders, characterized by a simple capital without leafy ornament or volutes, its frieze generally decorated with triglyphs and metopes
entablature the uppermost part of a classical order, consisting of the whole horizontal section supported by the columns or pillars
exedra a curved or rectangular recess in a wall surface
extrados the upper curve of an arch
faubourg a suburb or quarter outside the walls of a medieval city
fondaco in Venice a trading post or foreign merchants' centre; see also casa fondaco
fondamenta a waterside street or quay in Venice
four-light window a window consisting of four adjoining upright arched sections
frieze horizontal band, either plain or decorated, along the centre of an entablature
Greek cross a cross with all four arms of equal length
iconostasis a screen in Byzantine churches, separating the chancel from the nave
intrados the inner rim of an arch
Ionic one of the classical orders, with its capital decorated by volutes
lancet a slender, pointed-arched window
lantern a small rooftop turret with windows all around it
Glossary

lintel a horizontal beam or stone, bridging the top of a door or window opening
lunette a semicircular window or area of wall surface
machicolation a projecting gallery round the top of a medieval fortification, from which missiles etc. could be dropped on invaders
metope the square space between two triglyphs in a Doric frieze, often decorated with relief ornament
mezzanine a low storey between two higher ones
narthex separate section at the west end of the nave of an early Christian or Byzantine church
oculus a circular window
(the) orders the classical 'language' of architecture. The five main orders are the Doric, Ionic and Corinthian orders, all of Greek origin, and the Tuscan and Composite, of Roman origin. Each of these has its own characteristic proportions and decorative details. When the orders are superimposed, the Doric or Tuscan is normally the lowest in the sequence, followed by the Ionic, Corinthian and Composite. The columns or pilasters of each order are usually slightly shorter and proportionally slimmer than those of the one below
ogee arch a type of Gothic arch in which the convex curves become concave towards the apex of the arch
pastellon a kind of Venetian flooring, composed of ground terracotta bricks and tiles set in mortar and then polished
pediment a classical low-pitched gable over a door, window or facade, either triangular or segmental in shape
pendentive the curved triangular area of wall surface above each pair of the arches supporting a dome
piano nobile the principal living storey of an Italian palace, usually the first floor (in the English sense)
pianterreno the ground floor of an Italian building
pier a solid support or pillar, square or rectangular in section
pilaster a shallow pier projecting only slightly from the wall, and decorative rather than structural in function
piscina an open space or street in Venice formerly occupied by water
portego the Venetian word for a portico, also used to refer to the large central halls on the living storeys of Venetian palaces
portico an open colonnade, usually attached to a building on one side
proto the architect in charge of the upkeep or construction of the buildings and other real estate property belonging to a Venetian institution or public body
quatrefoil a type of Gothic tracery in the form of a four-lobed leaf or flower
retrochoir choir placed behind the high altar of a church
rio a Venetian canal
rio tera a street in Venice formed by the infilling or covering of a canal
riva quayside street in Venice, literally the 'bank' of a waterway
Glossary

rustication  masonry made of stone blocks, often roughly hewn, or stucco decoration with the same appearance, with defensive connotations

sail vault  dome or vault shaped like a sail over a square plan, merging with the pendentives at the corners

salizzada  a paved street in Venice

salone  a large room in one of the main living storeys of an Italian building

scuola  a Venetian guild or lay confraternity

segmental pediment  a pediment with a curved upper edge

serliana  a three-bay window with the central bay arched and the two lower side portions topped by straight entablatures; so-called because of its use by Serlio; also known as a ‘Palladian window’ or a ‘Venetian window’

ship’s-keel ceiling (soffitto a carena di nave) in the upper Adriatic region the wooden ceiling of a church or large meeting hall which in form and construction resembles an upturned ship

six-light window  window consisting of six adjoining upright arched sections

sottoportego  in Venice a portion of a street, usually arched on one side, passing underneath a building

spandrel  the section of wall directly over the curve of an arch

stilted arch  an arch with vertical extensions (‘stilts’) between the capitals and the springing of the arch

string course  a continuous narrow horizontal band on a wall surface

squinch  an arch across an angle to support a superstructure such as a dome

terrazzo  a type of Venetian flooring consisting of small coloured stones set in mortar, with a highly polished surface

thermal window  a large lunette-shaped window divided into three sections by two vertical supports (mullions)

tondo  a circular window or decorative panel

traghetto  gondola ferry in Venice

transepts  the arms of the cross in a cruciform church

trefol  a type of Gothic tracery in the form of a three-lobed leaf or flower

triglyphs  blocks with vertical grooves, alternating with the metopes in a Doric frieze

volute  a scroll-like form in classical architecture, especially in the Ionic capital

Zattere  literally ‘rafts’, the name given to one of the southern shores of Venice where many rafts were moored (see map of the city, fig. 2b)
2a Map of upper Adriatic region
Map of Venice, with buildings illustrated in this book indicated by their principal figure number.
Chapter 1

Introduction

The long and eventful history of Venice is vividly depicted in documents and diaries, books and paintings. But most evocatively of all it is preserved in the fabric of the city itself. Like animal fossils petrified in layers of rock, so the life of the Venetian people through the ages is recorded in the architecture of the archipelago on which the city was founded.

From the beginning Venetians, on their malarial, swampy islands, lived differently from the inhabitants of mainland Italy. The individuality of their way of life was partly a response to the unusual physical environment, but this in turn moulded the Venetian character. On his Italian journey, made only a decade before the fall of the Republic of Venice in 1797, Goethe still sensed the special resilience of the Venetian people:

This race did not seek refuge in these islands for fun, nor were those who joined later moved by chance; necessity taught them to find safety in the most unfavourable location. Later, however, this turned out to their greatest advantage and made them wise at a time when the whole northern world still lay in darkness; their increasing population and wealth were a logical consequence. Houses were crowded closer and closer together, sand and swamp transformed into solid pavement. . . . The place of street and square and promenade was taken by water. In consequence, the Venetian was bound to develop into a new kind of creature, and that is why, too, Venice can only be compared to itself.¹

The architecture of Venice is remarkable not only for its ingenious solutions to the technical problems of building in amphibious surroundings. It also embodies artistic achievements of the highest level. This book will concentrate on the finest, most influential buildings, those that, most of all, reward one’s attention with their subtlety and inventiveness, and offer the most lasting satisfaction. It is not a guidebook, because excellent guidebooks to the city have been produced since the sixteenth century. Nor is it a description of what one might be tempted to call the ‘typical’ buildings of each age, for these are, by definition, distinguished by their ordinariness. It is, rather, an attempt to pinpoint the

3 Rio della Tana
The highlight of artistic achievement, to explain how their designs evolved through the centuries in their historical context, and to show how ideas brought in from outside Venice were transformed and incorporated into a peculiarly Venetian style of architecture. Conventional style labels – Byzantine, Gothic, baroque and so on – will be used with their generally accepted, relatively loose meanings, since the exact definition of any artistic style is a controversial matter which would only distract attention from the main arguments of the book.

Because of our ignorance of the identity of most medieval architects, the early chapters will dwell on the actual monuments and the visual and historical changes that they reflect. It was in the Middle Ages that the characteristic Venetian building types evolved, to suit each particular function required by the city’s way of life. From the Renaissance onwards, the emphasis of the book changes. The leaders of artistic innovation emerge as real people, their personalities recorded by their contemporaries, and their individuality enshrined in their buildings. It would obviously be impossible, in a book of this size, to include every architect who is known to have worked in Venice, or even all the buildings of the most outstanding architects, for a work of such comprehensiveness would need the labours of a lifetime and at least ten volumes, and might well lose sight of the summits of achievement. The author hopes, simply, that the supreme quality of the buildings themselves will justify this attempt to chronicle their evolution.

The Origins of the City

The name Venezia was inherited from a province of the Roman empire, called Venetia, which bordered the northern part of the Adriatic sea. According to Francesco Sansovino, the author of the first full-scale printed guidebook to Venice, published in 1581, Venetia was believed to derive from the Latin phrase Veni etiam; ‘that is to say’, he wrote, ‘come back again, and again, for however many times you come you will always see new and beautiful things’. It would be futile to quarrel with this engaging definition, for one could hardly object to its sentiment, however dubious the etymology.

Despite the Roman origin of the city’s name, the islands on which Venice was to be founded were inhabited in Roman times only by small groups of fishermen, who supplemented their living producing salt by the evaporation of sea water. The nearest Roman town was the mainland settlement of Altinum. With the breakup of the Roman empire, the province of Venetia became part of the Eastern, or Byzantine, empire, ruled from Constantinople. At this time the principal cities in the area were the ports of Aquileia and Ravenna.
The legendary date for the founding of the city of Venice is AD 421, on 25 March, the feast of the Annunciation to the Virgin. There seems to be little evidence to substantiate the mythical foundation of Venice, supposedly at the time of the invasions of Attila, king of the Huns from 434 to 453, dramatically commemorated in Verdi’s early opera Attila (1846). Radio-carbon dating has confirmed settlement on the lagoon island of San Francesco del Deserto in the fifth century AD, and in Piazza San Marco a century later. It was towards the end of the sixth century that the barbarian or Lombard invasions on the mainland began to force the wealthier inhabitants of the province of Venetia to take refuge on the lagoon islands. There the refugees joined the native fishermen, preferring to remain under Byzantine domination rather than to submit to barbarian rule. For the next two centuries the island of Rivo Alto, or Rialto, literally meaning high channel, which was eventually to form the nucleus of the city of Venice itself, remained a centre of little significance.

Supposedly in AD 697 the lagoon settlements became an independent military unit under a dux, or doge. The local administrative centre was at first Ravenna, soon to be captured by the Lombard invaders. The doge then moved to Malamocco, situated on one of the lidi, the long sandy islands that enclose the lagoon. The chief threat to the existence of the Venetian state at the outset was the invasion by Charlemagne’s son Pepin in AD 810. Malamocco was captured, and the doge fled to Rivo Alto. The bishopric of Rialto (also called Olivolo-Castello) had already been established on a nearby island, and from this time onwards the importance of the lagoon archipelago centred on the Rialto increased steadily. It was this small settlement that was to become the capital of the independent Venetian Republic, which emerged as the power of the Byzantine empire gradually declined.

Rising from the inimical wastes of the lagoon, Venice was like an oasis in a desert – except that the shifting sands all around were largely submerged in shallow water. Like a desert city, Venice had no farmland round about to feed her inhabitants or to provide goods for export. Local agriculture was confined to gardens and vineyards on the archipelago itself, while the lagoon waters yielded nothing but fish and salt. Like an oasis town Venice depended for survival on long-distance trade routes, dealing in goods such as oriental silks and spices that were precious rather than bulky. It was not until the expansion on to the terraferma in the fourteenth and fifteenth centuries that the Republic acquired a hinterland.

The harsh physical environment contributed a very special quality to the visual surroundings in which the city’s architecture evolved. Venice has a magical air which has more in common with the world of the Arabian Nights than with the bustling cities of the Italian mainland. The expanse of nothingness all around suggests the ephemeral nature of a
desert mirage. From the waters of the lagoon the outline of the city is blurred by ever-changing reflections, and a strange luminosity is created by the huge expanses of sky stretching from one horizon to the other. Whereas Rome has her seven hills, and a backcloth of green Tuscan hills rises at the end of every Florentine street, Venice seems to lie in an infinity of sky and water. Even when the mountains of the mainland emerge from the haze on clear winter days, they seem ethereal and insubstantial. The buildings of the city are framed only by each other, and their profiles are silhouetted against nothing but sky. This was the context in which the architecture of Venice developed, and without which it could never have evolved as it did.

Of the appearance of the early lagoon settlements little is known. A splendid pre-Roman lagoon boat, preserved in the Natural History Museum in Venice, is a forceful reminder of the fine seamanship of the first settlers. The romanticized description written by the Roman official Cassiodorus in AD 537 compares the fishermen’s houses to ‘aquatic birds, now on sea, now on land’. The Venetians, he writes, ‘have abundance only of fish; rich and poor live together in equality. The same food and similar houses are shared by all; wherefore they cannot envy each other’s hearths and so they are free from the vices that rule the world’. The first houses of the lagoon boatmen were probably wooden huts, raised on stilts to protect them from high tides and floods. On some of the higher islands houses could be built directly on patches of gravel topping the sandy soil, but elsewhere land had to be reclaimed little by little. Areas to be drained were enclosed with basket-work dykes; navigation channels were excavated; and the mud dredged from the canals was used to raise the level of the reclaimed land (fig. 4).

After Rivo Alto became capital of the Venetian state in 810, the city must have grown rapidly, but most of the inhabitants then lived in wooden houses roofed with thatch, which have perished in fires long ago. Even the first churches were of wood, and it is recorded that the church of San Salvador (or San Salvatore) had a thatched roof until as late as 1365. Only the most important public buildings such as the Palazzo Ducale (the Doge’s Palace) and the ducal chapel, the church of San Marco, were built of brick and stone. The earliest permanent structures on these sites, too, have virtually disappeared, though as we shall see later archaeological investigations have revealed something of their original form.

For the most vivid impression of an early lagoon settlement we must go instead to the island of Torcello. Archaeological excavations have revealed a walkway dating back to the second century AD, showing that the site had been occupied since Roman times. It was here that the bishop of Altino transferred his seat in 638 when forced to flee from the mainland in the barbarian invasions. The oldest buildings on the island,
the cathedral and baptistery, date originally from that time (fig. 7). Torcello later became a flourishing centre of wool manufacture as well as an important episcopal centre. Then, from the fourteenth century onwards, the island declined as Venice prospered, and was eventually devastated by malaria and abandoned. It now has only a small number of inhabitants, and most of the domestic buildings from its more prosperous days have perished. Nevertheless, it is not inconceivable that the small two-storey houses that still stand on the island, with their big oven-houses attached at the side, may be survivals of a more ancient type of lagoon dwelling. Most important, in its present lonely, desolate state (except when overrun by tourists on a summer Sunday), Torcello reminds us of the bleak, hostile nature of the terrain on which the city of Venice was founded.
Chapter 2

Byzantine

It was in the Byzantine period that the foundations of Venetian architecture were laid, both literally and conceptually. The Byzantine style lasted longer in Venice than in any other city of western Europe. The earliest surviving monuments of the Venetian archipelago date from the seventh century, and the style persisted until the thirteenth century when the Gothic pointed arch finally began to oust Byzantine forms. During these six centuries many changes occurred in the political and commercial affiliations of the state, and these in turn led to transformations in the nature of Venetian Byzantine architecture.

The origins of the Byzantine style are rooted in the traditions of the Roman empire. When Emperor Constantine set up his new capital in Byzantium in AD 330, after his conversion to Christianity, the centre of gravity of his empire moved from West to East. It was in the heritage of the classical Roman world that the early Christians found the models for their first churches. Two types, in particular, seemed best suited to their needs – the Roman basilica, or secular meeting hall, for accommodating large congregations, and the centralized tomb structure, which was adapted for shrines and baptisteries.

In the centuries following the fall of the Roman empire, early Christian churches of both these types sprang up in the Byzantine provinces of the Adriatic, in towns such as Ravenna and Aquileia. As these cities were overrun by barbarian invaders, their architectural traditions were preserved on island refuges, such as Torcello, Murano and Rivo Alto. In 811 the Pax Nicephori between Charlemagne and the Eastern empire confirmed the existence of Venice as a semi-independent province of Byzantium, the only Italian city to retain an affiliation with the East. From this time on, as her merchants took advantage of trading privileges with the Byzantine empire, Venice began to look eastward for cultural inspiration. The direct influence of classical prototypes began to recede, and the ancient Roman sense of order and clarity was lost in an aura of oriental mystery as the huge vaulted spaces of the great churches of Byzantium began to make their impact.
Gradually, however, the autonomy of Venice became greater, while the power of the Byzantine empire waned; and the increasing commercial and political power of the Republic brought a new independence of spirit. The start of this trend was boldly symbolized in 829 when the Greek soldier-saint Theodore was replaced as the patron saint of Venice by the evangelist Saint Mark, whose body had been audaciously captured from Alexandria. Now commercial horizons started to widen dramatically. By the tenth century Venetians were trading extensively with the Islamic world as well as with Byzantium, and were beginning to renew contacts with the mainland of western Europe. The Venetian visual imagination was excited by the colourful, cosmopolitan crowds that thronged the city, and by the exotic stories told by sailors and merchants. This brought a growing desire to decorate the stark exteriors and cavernous spaces of the great Byzantine monuments such as the church of San Marco with mosaics, inlaid marbles and carvings. Because of the strong oriental influence this new decorative idiom was essentially two-dimensional, far removed from the high relief and rudimentary perspective of classical Roman ornament. This enabled the bold forms of the city’s Byzantine buildings to be preserved intact.

The period of the Crusades, which began at the end of the eleventh century to protect pilgrims to the Holy Land from the Muslims, brought an increasing flow of travellers through Venice. These returned with a fuller knowledge of the world of Islam, often bearing with them rare oriental marbles, precious works of art and military trophies looted from the Muslims and from the weakening Byzantine empire. Tinged with its exotic eastern flavour and embellished with spoils from the Crusades, the late Byzantine architecture of Venice reveals a new self-confidence and individuality. Whereas in mainland Europe the stark Romanesque style was emerging from the remnants of early Christian and Carolingian traditions, Venice had her own personal equivalent in her Veneto-Byzantine architecture. Through the whole spectrum of its evolution, the Byzantine legacy provided Venice with the basic building types and techniques, as well as decorative traditions, that were to influence and guide Venetian builders of the future.

Byzantine Religious Architecture on the Islands of Torcello and Murano

Splendid examples of early Veneto-Byzantine churches, little altered or embellished during later centuries, are still to be found on the islands of Torcello and Murano. These once thriving island communities were later eclipsed as the city of Venice grew in importance, with the result that
the inhabitants had neither the funds nor the stimulus to modernize or replace their buildings.

The churches of Torcello are among the oldest examples of Byzantine architecture in the Venetian archipelago. The seventh-century baptistery, of which little survives other than the foundations of the circular perimeter wall and the bases of the columns, is an important relic of this very early period. At this stage Rome rather than Byzantium was still the dominant influence, and indeed the baptistery, with its inner ring of eight columns which presumably once supported a dome, follows in the tradition of early Christian centrally-planned baptismal chapels such as Constantine's Lateran Baptistery in Rome.

In its essential elements the cathedral, which stands behind the remains of the baptistery, also preserves its seventh-century form, although it was substantially rebuilt in the ninth and eleventh centuries. An inscription discovered during excavations in 1895 records that the church, dedicated to the Virgin, was founded under Emperor Heraclius by order of Isaac, exarch of Ravenna in 639. It is now assumed that the seventh-century church was a simple triple-naved rectangular space with a single apse at the east end, in other words, a typical early Christian basilica of the form inherited from Roman secular architecture. Basilicas of this type already existed in the upper Adriatic region – fine sixth-century examples survive at Grado and Ravenna – and it was surely Ravenna that provided the artistic inspiration as well as the directive. Although the plan has survived with only minor alterations, little of the actual fabric of the seventh-century cathedral is still visible. The wall of the central apse and perhaps the lower part of the entrance wall date from that time, and excavations have uncovered some of the original mosaic floor, in a black and white squared pattern, under the present pavement. In 1929 the original seventh-century altar, unearthed during archaeological investigations, was re-erected in the chancel.

A second phase of building, begun in 864 under Bishop Adeodato II, is recorded in the chronicle of John the Deacon. To this period the two smaller side apses and the crypt beneath the central apse are usually attributed. It is possible that the present perimeter walls date from the same time. The traces of frescoed draperies on the chancel wall are also thought to be ninth-century fragments.

The present aspect of the cathedral, however, owes most of all to the final building campaign launched by Bishop (later doge) Orso Orseolo in 1008 (fig. 7). At this stage the floor was raised and a new mosaic pavement begun. The sturdy upper walls of the nave, with clerestory windows on the south side, seem also to belong to this final phase of building (though much restored). The interior colonnades with their stilted brick arches are of the same period, although two of the capitals on the right side of the nave, earlier in style, were presumably reused from the
previous structure. And, finally, the present square campanile was erected at the east end of the cathedral.\textsuperscript{5}

Despite these transformations the cathedral retains much of the character of its sixth-century early Christian prototypes, Sant’Apollinare in Classe and Sant’Apollinare Nuovo in Ravenna, and the basilica of Grado. The massive brick exterior is decorated only by concentric layers of brickwork around the windows and blind arches. The windows of the south aisle still preserve their stone shutters hung on stone hinges.\textsuperscript{6} Inside the cathedral the fine marble columns, the delicately carved capitals and the exquisite mosaics, contrasting sharply with the rugged exterior, are again reminiscent of the Ravennate antecedents (fig. 5). The semi-circular row of steps in the apse, mounting to the bishop’s throne in the centre, is typical of early episcopal churches in the area. The heightened profile of the stilted arches shows, however, that contacts with the eastern Byzantine empire were beginning to leave their mark on the architecture of the Venetian lagoon. Similarly, the four beautiful marble \textit{plutei} (panels

\textsuperscript{6} Torcello cathedral, and remains of the baptistery. The walls marked in black show the seventh-century structures, the diagonally shaded walls those from the ninth century and the stippled walls those from the eleventh century (based on A. Niero, \textit{The Basilica of Torcello and Santa Fosca}, Venice, n.d., p. 11)
decorated with Byzantine-style relief carving) beneath the eleventh-century iconostasis show how far local craftsmen were becoming influenced by more eastern styles of decoration.

The most impressive quality of the interior of Torcello cathedral is one of calm and extraordinary dignity. The decorative elements, though of high quality, are in a sense subordinated in scale and feeling to the overriding simplicity of the great, solemn space. The stately colonnades of the nave lead one with a slow, measured pace across the cold mosaic floor towards the eventual climax: the bishop’s throne and the imposing mosaic figure, *Mary Mother of God*, presiding majestically above.

Beside the cathedral of Torcello stands the little church of Santa Fosca, which was built to house the body of the early Christian martyr of the same name, brought to the island before 1011, possibly as early as the Carolingian era (fig. 7). There is no convincing reason to doubt that the nucleus of the present church still preserves its eleventh-century form. The church of Santa Fosca had a very different function from that of the basilica alongside it. Built as a martyrium, it had no need to serve as a setting for processions in great episcopal ceremonies, but was essentially a place for pilgrimage and meditation. Thus the church was not modelled on the great classical basilicas with their spacious naves and side
aisles, but on a different type of architecture more suited to the needs of shrines and sepulchral buildings. It was the Romans who promoted the tradition for small centralized tomb structures in Italy. The form adopted at Santa Fosca, however, also reflects the influence of later Byzantine models (fig. 8). Like the fifth-century mausoleum of Galla Placida in Ravenna, the plan of the church is a Greek cross, that is, a cross with all four arms of equal length, although it is transformed, by means of pendentives and double squinches supported on free-standing columns, to a circular drum above. The elegant simplicity of this arrangement is one of the church’s most impressive features.

The theme of the Greek-cross structure supporting a great central dome was one that long preoccupied Byzantine architects. The great church of Hagia Sophia in Constantinople, rebuilt by Emperor Justinian in the sixth century, is one of the most famous early examples. And it was also to become a central theme in the history of religious architecture in Venice. The builders of Santa Fosca probably intended their
church to be roofed by a dome, but the construction must have proved too great a challenge. The existing wooden conical roof, tiled on the outside, was a cheaper, safer solution, and one that in no way detracts from the overall effect. The white crosses and tall arched windows on the end wall of each transept are a neo-Byzantine restoration, replacing the anachronistic ‘thermal’ or lunette windows that had been inserted into the structure in the eighteenth century.  

The portico that completely surrounds the church, except on the apsed east side, is probably a twelfth-century addition. Here the Greek-cross plan is ingeniously transformed into an octagon, with five bays along each of the sides of the arms of the cross and three bays on the shorter diagonals between. Added in the aftermath of the First Crusade, the arcade seems to be an overt allusion to the Dome of the Rock in Jerusalem, then believed to be the Temple of Solomon, which was in the custody of the Knights Templars during most of the twelfth century. The combination of round and polygonal columns adds an element of variety to the colonnade, while the distinctive stilted arches, considerably more elongated than the earlier arches inside the church, punctuate the dark shadows of the arcade with repeated vertical accents and lead the eye up to the imposing accumulation of masses on the roofline, intriguingly complicated yet perfectly harmonized. This array of protrusions of different shapes, rising to a climax in the centre, already seen in Italy in the sixth-century church of San Vitale in Ravenna, is typical of Byzantine churches of the Near East.

The eastern apse at the back of the church is decorated on the outside with elaborate patterns in the brickwork, which constitute the only external adornment, apart from the columns of the portico. The dog-tooth pattern that dominates the apse decoration was a common ornament on early Veneto-Byzantine churches, otherwise so bare on the outside. The combination of the rich red colour of the brickwork and the crisp white marble detailing must have provided an element of warmth for the early Venetians in their bleak, inhospitable environment. Fostered by the local availability of building materials, this combination of red and white was long to be a favourite colour theme in Venetian architecture. For all its individuality, the church of Santa Fosca is an important example of early Byzantine religious buildings in the Venetian lagoon; like the cathedral beside it, it still preserves the characteristic contrast between the starkness of its external aspect and the solemn gravity of its beautifully proportioned interior.

A third fine representative of the sacred architecture of the period is the church of Santi Maria e Donato on the island of Murano (fig. 9). Like the churches of Torcello, Santi Maria e Donato was probably founded in the seventh century. As early as 999 it was mentioned in contemporary records as a church dedicated to the Virgin. The dedication
to San Donato was added in 1125 when the relics of the saint's body were brought to Murano from the Greek island of Cephalonia. The magnificent mosaics on the floor are dated 1140, by which time the church must have been substantially completed. Originally built in honour of the Virgin, like the cathedral of Torcello, it only became a shrine once the main layout of the building was already established. Thus the simple basilical plan with a single apse at the east end, like the first cathedral at Torcello, was chosen in preference to the more intimate, centralized martyrium type, represented by Santa Fosca. The separate centralized baptistery, which once stood in front of the entrance façade, was demolished in 1719. Unlike Torcello this was not an episcopal centre. Thus the apse has no flight of steps leading up to a bishop's throne; instead, the choir serves as the reliquary chapel for the saint's remains.

The main part of the exterior of Santi Maria e Donato reveals its naked brickwork decorated with simple concentric brick arches in the typical Veneto-Byzantine manner. However, the apse, the section that contains the saint's relics, is exceptionally ornate for the period. Here again we find the zigzag terracotta patterns and dog-tooth mouldings that appear on the apse of Santa Fosca, but the articulation is far more elaborate, with two tiers of blind arcades, their paired marble columns flanking brick niches below and enclosing a gallery above. Some fragments of earlier Byzantine carving are also incorporated into the decoration.

Unlike Torcello cathedral, Santi Maria e Donato has definite transepts. Although these do not project on the plan, they are prominent on the exterior, being higher than the side aisles. In the nave the two rows of stilted arches, supported on marble columns with fine Veneto-Byzantine capitals, are replaced at the crossing by four huge square piers which may possibly have been intended to support a dome, In the event, as at Santa Fosca, this was never done. The present wooden 'ship's-keel' ceiling dates from the fifteenth century. The flamboyant baroque altars in the transepts were removed during late-nineteenth-century restoration work. As a result, the spacious, lucid interior, though stripped and much renewed, recalls its twelfth-century state to a remarkable extent, as does the distinctive brick and terracotta exterior.

Byzantine Religious Architecture in Venice Itself

In these island churches we have seen evidence of Byzantine ecclesiastical architecture in the lagoon at various stages between the seventh and twelfth centuries, little altered since then. In Venice itself the situation is rather different. The two most important surviving Byzantine churches, San Giacomo di Rialto and San Marco, one founded on each of the two principal islands of the nascent city, have both been substantially
transformed since the early period. As we shall see, San Giacomo was completely rebuilt in later restorations, while the core of San Marco is virtually hidden beneath lavish mosaic and sculptural decoration. Yet both are more important in the development of religious architecture in Venice than any of the more remote island churches, for they were constantly seen and visited by both Venetians and travellers. Both are variations on the Byzantine theme of the Greek cross supporting a central dome, one church being in a sense a miniature and much simplified version of the other.

The legendary date for the foundation of the church of San Giacomo di Rialto, affectionately known to Venetians as San Giacometto, is AD 421, the very year that the city of Venice itself was supposedly founded. Francesco Sansovino’s sixteenth-century guide to Venice even names the four bishops who consecrated the church in the following year. According to Sansovino, substantial restorations were carried out in 1071, and it is likely that the present configuration dates from around that time. Chronicle sources claim that the church was consecrated by Pope Alexander III in 1177, at the time of his celebrated meeting with Emperor Frederick Barbarossa, thus associating it with another of the most significant events in Venetian history. The lean-to Gothic entrance
portico, added subsequently, and the great clock built in 1410 give the façade its distinctive character (fig. 10).

A further attempt at restoration in 1531 failed to secure the ancient structure, which had miraculously escaped the great fire that devastated the Rialto market in 1514. Finally in 1601 a decree of the Senate authorized the complete rebuilding of the church. So great was Venetian reverence for this historic building that its original form and even its tiny size were preserved. The only significant alteration was the raising of the church on to a higher base to reduce the risk of flooding. In addition, three large semicircular windows were opened up beneath the barrel vaults to improve the lighting; and rich baroque altars – oppressively heavy in such a small space – were erected in the chancel and the two side chapels. Together with the loss of the old mosaics, which were still visible in the later sixteenth century, these changes must have considerably changed the character of the interior, once dimly lit with flickering mosaics. None the less, the simple Greek-cross structure, with its central dome supported on free-standing columns, reproduces faithfully that of the original Byzantine church (fig. 11). The six Greek marble columns with their beautifully carved eleventh-century capitals (which,
again, seem enormous in such a restricted space) were preserved in the rebuilding.

On the entrance side the area is slightly extended with an extra pair of columns to suggest a rudimentary nave. The dominating effect of the central dome, with its high drum and lantern, serves, however, to draw attention to the centralized ground-plan. Small, centrally planned Byzantine churches of this type probably once existed in most of the parishes of the city, but no others commanded such respect and affection that they have survived to this day.

The centralized parish church had considerable advantages, for a small compact space was ideal for the parochial services. The administration of the sacraments to the local residents and the commemoration of the souls of the deceased were the main functions of these churches, which had no need of huge naves, whether for processions or preaching. It was an old tradition in Venice that the parish priests were elected by the parishioners themselves, or rather, by the householders of the parish. No monastic communities were attached, only small bodies of secular clergy. And it was the residents of the parishes who were responsible for financing the building and maintenance of their churches. San Giacometto itself is a slightly unusual parish church, being a national monument as much as a local landmark, but it is still important as the only remaining example of these small Byzantine parish churches in the city of Venice.

‘The composition of the dome is so well assembled and so well supported by the arches which sustain the vaults’, wrote Francesco Sansovino of San Giacomo di Rialto, ‘that it is a marvellous thing to see, and one might say that it was the model for the church of San Marco.’ In reality the two monuments create very different effects: one so small, the other so huge; one so modest, the other so richly decorated. Yet Francesco’s observation was a perceptive one, since both are variations on the great Byzantine theme of the Greek cross supporting a large central dome.

The church of San Marco has the aura of a great cathedral, but in reality it did not become the cathedral of Venice until as late as 1807. Before then the seat of the patriarch (or bishop) of Venice was the church of San Pietro di Castello, founded at the time of the establishment of the bishopric of Rialto in 774/5 on the island of Olivolo (also called Castello) on the eastern margins of the city. In the mid-fifteenth century the office of bishop was merged with that of patriarch of Grado to become the patriarchate of Venice, with its seat at San Pietro.

San Marco, on the other hand, was the private chapel of the doge and, above all, it was a great shrine for the body of Saint Mark. The legend recounting the acquisition of this relic – the most precious in the city – is complex and colourful. Briefly, two Venetian merchants, accompanied by two monks, skilfully removed the body of Saint Mark from its tomb
in Alexandria (where the saint is said to have been martyred), substituting in its place the body of Saint Claudia. The relics were exported in a basket of pork, to deter prying Muslim customs officials, and brought back to Venice in 828/9. This momentous event, known as the *translatio*, is commemorated in the famous thirteenth-century mosaic on the façade of San Marco, over the Porta Sant’Alipio, in which the body of Saint Mark is shown being carried into the church built in his honour, here portrayed in its thirteenth-century state (fig. 12).

After the *translatio* Saint Mark quickly displaced the eastern soldier-saint, Theodore, as the patron saint of the city, as it were symbolizing the Venetian state’s gradual break-away from Byzantine rule. The mythology associated with the Marcian relics continued to grow—including, for instance, the dramatic story of the loss of the saint’s body and its miraculous reappearance in the burial vault of the church. As the popularity of the saint grew, so too did the wealth of the Procurators of Saint Mark, who were in charge of the building and upkeep of the church. Whereas in most of the great cities of feudal Europe bequests and tithes flowed into the episcopal treasuries to finance the building of fine cathedrals, many Venetians made their pious donations not to the remotely situated cathedral of San Pietro di Castello, but to the
ducal chapel of San Marco. Thus the church became a potent symbol of Venetian religious devotion and civic pride; and as such it played the same role in Venice as the great medieval cathedrals in other European cities.

Of the original church, begun soon after the arrival of the body of Saint Mark in Venice in 829, very little is now visible. Modern excavations have, however, suggested that the ninth-century church was in fact broadly similar in plan to the core of the present structure (fig. 13). It was probably in the form of a simple Greek cross with an apsed east end, although the archaeological evidence remains controversial.\(^\text{19}\) The wall that now separates the atrium from the nave is essentially the west front of the ninth-century structure, including its great entrance niche. A companion chapel dedicated to Saint Theodore, later demolished, lay on the north side.\(^\text{20}\) The walls of San Marco were built of stone left over from the construction of a nearby abbey, as well as some second-hand building stone from Torcello, and probably also from Roman remains on the mainland. The central dome over the crossing seems to have been roofed in wood, like the dome of Santa Fosca in Torcello.\(^\text{21}\)

Early chronicles record that the ninth-century church was badly damaged in a great fire in 976. However, the fact that the repairs, carried out by Doge Pietro Orseolo, were completed within the space of only two years indicates that the building cannot have been totally destroyed. The restoration seems to have been a makeshift affair, for already in the mid-eleventh century, less than 100 years later, it was decided to rebuild the church yet again, this time more radically, on a more ambitious scale. This final reconstruction, which continued through the reigns of three doges, was begun under Doge Domenico Contarini (1042–71) and finished under Doge Vitale Falier (1086–96).\(^\text{22}\)

To envisage San Marco as it appeared in the ninth century, the architectural historian has to depend on the archaeologist. The aspect of the eleventh-century church can, however, be relatively easily reconstructed from the evidence of the present building. What is needed, above all, is a great effort of imagination to erase from one’s mind the profusion of mosaics, fine marbles and florid rooftop sculpture that now adorn – and largely conceal – this great Veneto–Byzantine monument.

It was in the eleventh century that the original wooden dome was superseded by five great domes with brick vaults, a daring undertaking in view of the unstable nature of the Venetian subsoil, and one that has led to structural problems ever since.\(^\text{23}\) (The Florentine architect Jacopo Sansovino first made his reputation in Venice when he successfully repaired the domes by encircling them with iron rings in 1527.\(^\text{24}\)) To picture the effect of the five new brick domes, we must try to imagine San Marco without one of its most memorable features, that is, the five lofty domes roofed with lead and topped by onion-shaped lanterns that
Church of San Marco, plan (from L. Cicognara, A. Diedo and G. Selva, *Le fabbriche e i monumenti cospicue di Venezia*, 1, Venice, 1838)

Now surmount the church (fig. 14). These flamboyant cupolas are simply outer shells, added in the thirteenth century to make the skyline of the church more prominent and to establish the Alexandrian context by allusion to recent Egyptian funerary structures. The exterior would originally have had the same profile as the lower, inner domes that we see inside the church. This flatter type of cupola is more typical of the Byzantine churches of Constantinople and Greece, from which the builders of San Marco drew their inspiration.

In order to support the extra weight of the brick domes of the eleventh-century rebuilding, the walls had to be considerably thickened. The church was also enlarged on both the north and south sides: on the north to embrace the remains of the early ninth-century chapel of San Teodoro, which was finally demolished at this time; on the south to include what was probably a corner tower of the old Palazzo Ducale and which now forms part of the treasury of San Marco. At the west end a narthex was added, and at the east two smaller apses were built on either side of the main presbytery. (The baptistery on the south side, and the corresponding extension to the atrium on the north, are probably thirteenth-century additions.)
As at Santa Fosca, which was also built as a reliquary chapel, the Byzantine cruciform plan was chosen for the great new shrine to house the saint’s body. The choice of the Greek cross places San Marco firmly in the tradition of apostles’ churches. The plan is indeed very similar to the church of the Holy Apostles (the Apostoleion) in Constantinople, as rebuilt by Emperor Justinian in the sixth century. This famous Byzantine monument no longer exists, having been destroyed after the fall of Constantinople to the Ottomans in 1453. It is known from a manuscript illumination in Paris, from written descriptions and from its presumed likeness to the contemporary apostolic church of Saint John the Evangelist at Ephesus. Even in parts of Italy that were affiliated with the Western Church, and were thus divorced from Byzantine traditions, cruciform plans were traditionally chosen for apostles’ churches, such as the church of the Holy Apostles in Milan, founded by Saint Ambrose in AD 382. That the Venetians thought of their patron saint specifically as one of the apostles is attested by their avid collecting of holy relics of other apostles, many of which are still preserved at San Marco.

Each domed space forms, in effect, a separate, smaller-scale Greek cross, with four barrel-vaulted spaces to buttress the lateral thrust of the dome. The predominance of the overall Greek-cross plan is stressed by screening off the subsidiary barrel-vaulted spaces behind arcades, which also serve to support the galleries. The present raised ‘cat walks’ are the somewhat vertiginous remains of the original galleries. It seems that they were once much wider, like those that survive at the ends of both transepts and at the west end of the nave, but that they were subsequently narrowed to allow more light into the aisle-like spaces beneath. The existing galleries show clear evidence of this change, for the outer balustrades are of the solid Byzantine type with carved plutei (relief panels) while the inner ones are typically Gothic in style with their rows of slender colonnettes. The reason for the alteration must have been the blocking-up of many of the upper windows to provide extra wall space for the mosaic decoration, which would have made the church too dark.

The spaces of the interior are not neatly compartmentalized, but are interconnected by means of colonnades and arched openings (fig. 15). For example, the four huge piers that support the central dome are penetrated by great archways, with the weight redistributed on four smaller piers in each case – like a person sitting on a four-legged chair. This lightens the visual effect considerably, and enables air to flow more freely between one domed space and another. It even allows a continuous vista down each side of the nave to suggest side aisles. The apparent lightness of the structure is also conveyed by the way in which the cupolas seem not to rest directly on the great arched barrel vaults,
Church of San Marco, founded early ninth century, interior
but to hover effortlessly just above them. The transition from the square spaces below to the circular domes above, a problem that preoccupied many medieval builders, is here accomplished skilfully and smoothly by means of pendentives.

That the resemblance between San Marco and the Apostoleion in Constantinople was recognized from the start is clear from an early twelfth-century manuscript, written by a monk at San Nicolò di Lido, which states that the new church was built 'in a construction similar to that of the Twelve Apostles in Constantinople'. If we study the plan of San Marco carefully, however, we can see how the Byzantine model was subtly transformed to suit the rather different liturgical function of the Venetian church (fig. 13). For instance, it becomes clear that the four domes over the arms of the Greek cross in San Marco are not in fact equal in size; those over the transepts and the east end are smaller than the central dome, while the cupola above the western arm of the crossing is slightly elongated to extend the nave space. As a result, the colonnades that support the galleries have only three bays in each transept, but four on either side of the nave. This subtle extension of the nave recalls the similar arrangement at San Giacomo di Rialto. The longitudinal axis is further emphasized by the blocking-off of the ends of the transepts, and by the three apses at the east end, which suggest a directional force that has pushed out the far wall. Whereas the plan of the Apostoleion was probably perfectly symmetrical on all four axes, with the sanctuary beneath the central dome, in San Marco, on the other hand, the form of service called for a secluded presbytery for the clergy at the east end. The tomb of Saint Mark was placed in the crypt under the chancel, directly beneath the high altar. The directional emphasis of the space, aligned towards the chancel, not only suited the liturgy, but also made the church a more appropriate setting for the great processions that accompanied all the principal ducal ceremonies.

The eleventh-century church with its new brick domes would have made a powerful but stark impression. Brick was in fact the chief building material, and the typical terracotta dog-tooth mouldings were used to decorate the Byzantine arches, both inside and out. Only the lunette-shaped south wall of the nave and the apsed east end of the chancel preserve their naked brickwork to this day. Like the other Byzantine churches in the lagoon, the windows were framed by concentric brick arches, as if to reveal the successive layers of the massive brick walls. The lower walls were articulated mainly by a series of niches, some curved, some rectangular, an Italian decorative tradition probably derived from Roman tomb architecture. Stone was used for the columns, capitals, horizontal mouldings and balustrades inside the church, and for some of the details of the exterior, such as the engaged columns of the eastern apse.
By the time of the execution of the thirteenth-century mosaic on the façade, showing the *translatio* of the body of Saint Mark, the church had completely changed its outward appearance (fig. 12). This mosaic, the only one of the original series in the arches of the portico to survive, must date from before 1267 when it was mentioned in Martino da Canal's famous chronicle. It decorates the lunette on the northernmost bay of the façade, over the Porta Sant'Alipio.

No longer do we see the heavy brick structure with its low domes and niches, but instead a façade bedecked with fine marbles and mosaic decoration, crowned by the soaring domes already mentioned (fig. 16). It would be hardly an exaggeration to claim that this transformation could not have been possible but for the Venetian triumphs in the Fourth Crusade of 1202-4. For this expedition Venice supplied a magnificent fleet of warships, in return for a large cash payment and an equal share of all spoils and territorial conquests. Audaciously led by the blind and aged doge, Enrico Dandolo, the Venetian fleet was instrumental in diverting the Crusade to sack Constantinople, also taking possession of Zara on the Dalmatian coast. In the looting that followed the fall of Constantinople, the Venetians seized whatever they could transport home, including precious holy relics and the four bronze horses that were placed over the entrance to San Marco. The wealth of oriental marble columns on the façade of the church must also have been imported to Venice from 1204 onwards. The favourite place for displaying looted sculpture was the south wall, facing the Palazzo Ducale, which was the first façade to be seen by visitors arriving by sea. The south wall of the treasury, in particular, is inlaid with pieces of Byzantine relief carving, with the delightful porphyry group of the four *Tetrarchs* huddled together on the corner.

The arrival of such splendid trophies as these from the Fourth Crusade, and later from the Genoese wars, encouraged other embellishments to San Marco. We have already seen how the cupolas were raised, and the baptistery and the north wing of the atrium added. It seems also to have been in the thirteenth century that some of the Gothic details, which had been inserted into the Byzantine structure, were hidden beneath more classical rounded arches, to unify the style in what has been identified as a kind of Venetian 'proto-Renaissance'. Meanwhile, overt allusions to Islamic visual traditions proliferated, asserting Venice's growing artistic independence.

This is not the place to discuss in detail the mosaics, the inlaid marble floors and the sculptural decoration of the interior. What is important is to realize how the eleventh-century architecture was gradually transformed during the long process of decoration. Both the marble pavements and the mosaics are symptomatic of the archaizing tendency that runs through the whole history of Venetian art. The beautiful geometric
patterns that decorate the floors, like the pavements of Santi Maria e Donato in Murano and the cathedral of Torcello, recall Roman and early Christian traditions, revived on a scale unusual in medieval architecture. These pavements were apparently begun soon after the completion of the eleventh-century church. A few fragments of mosaics from this early period have been uncovered on the façade, contemporary with those of Torcello, but mosaic decoration on a more expansive scale began in earnest in the twelfth century. Whereas in most Italian churches this technique was superseded by fresco painting from about the thirteenth century, the mosaic decoration of San Marco did not cease until the nineteenth century. It is true that the local glass-making industry on the island of Murano fostered the existence of a Venetian school of mosaicists; but this industry might never have flourished for so long had not Venetian taste continued to appreciate this time-honoured medium.

The Venetian fondness for archaism is also apparent in the sculptural decoration. As workshops of Lombard and local craftsmen produced a blend of Italian and Byzantine motifs, so ancient and modern decorative traditions were retained side by side, and spoils were juxtaposed with custom-made pieces. So closely could the Italian stone-carvers imitate the style and technique of Byzantine sculptors that it is often difficult to distinguish between the oriental originals and the locally produced versions. Deeply drilled, lacy, Byzantine-style basket capitals coexist with reused antique Corinthian capitals and Gothic fleshy leafed variants. The plain marble panels that cover many of the lower wall surfaces, like
hangings of moiré silk, were put in position from the late eleventh century onwards. Each marble surface was laid alongside its mirror image, to create the shimmering effect so characteristic of the lagoon churches of the Veneto-Byzantine period.

The result of these decorations was to transform the solid brick wall-surfaces of the interior into brilliant ethereal visions above and undulating watery patterns below (fig. 15). Light flickering on the mosaics and reflected from the polished marble surfaces dances about in the huge vaulted spaces, dissolving the once clearly separated pools of light and shade. There can be no doubt that the clarity and apparent solidity of the eleventh-century building was sacrificed. We must not forget, however, that the mosaics, the floor patterns and the marble facings on the walls were all begun soon after the completion of the new church. This suggests that its builders always intended the heavy architectural framework to be adorned with rich surface decoration. While the quality of the mosaic designs varies greatly, the general conception cannot be seen as a betrayal of the intentions of the founders of the church. Indeed it is characteristic of Byzantine architecture in the lagoon that most of the interior decoration is in two dimensions, or in very low relief, so that the integrity of the architectonic elements is not undermined.

By the end of the fifteenth century, the exterior of the church of San Marco had reached more or less its final form (except for the later renewal of some of the façade mosaics). The evidence for this is the painting of the Procession in Piazza San Marco by Gentile Bellini, signed and

17 Gentile Bellini, Procession in Piazza San Marco, signed and dated 1496 (Gallerie dell'Accademia, Venice)
dated 1496, which gives a precise and detailed view of the church at that time (fig. 17). From this picture we can assume that the Gothic cusps over the upper lunettes, the skyline pinnacles and statues, and the rooftop crockets like white-hot flames licking the bases of the domes, were fourteenth- and fifteenth-century additions, since none of these features appears in the Porta Sant’Alipio mosaic (fig. 12). The least fortunate alteration is surely the opening-up of the central lunette to make a huge blank window, presumably to admit more light into the church after other windows had been blocked up to make way for the mosaics.

To the western eye, San Marco has a distinctly oriental air. Certainly it is far more eastern in feeling than the Byzantine churches of Torcello and Murano, where little decoration was added after the time of the Fourth Crusade. Spoils plundered from Constantinople give an eastern aspect to the outer walls, while inside the church the dramatic shafts of light and pools of shadow, softened by reflections from the vast expanses of glittering mosaics, make the interior more magical, less static in character than the other Byzantine churches of the lagoon.

Yet San Marco is not simply a Byzantine monument transplanted to Venetian soil. To a visitor from the Near East it would seem equally foreign, for the building was largely erected and decorated by Italian craftsmen, whose stamp is imprinted in every part of the building. Not only Lombard stonemasons, but also, in later centuries, such famous Tuscan artists as Paolo Uccello and Jacopo Sansovino had a hand in the decoration. At San Marco a remarkable blend is achieved between Italian and eastern influences, although more than in any other Venetian building it is the oriental flavour that is the dominant one.

**Byzantine Domestic Architecture**

The few surviving Byzantine-style churches of the Venetian archipelago have their secular equivalent in a small number of fine Veneto-Byzantine palaces, which represent, in effect, the Venetian form of Romanesque. Precise dating of the oldest extant Venetian palaces is usually impossible, since documentation from this early period is scarce. We can, however, be fairly sure that little remains of the domestic architecture of the city before the early thirteenth century. Only a few fragments seem to be older than this. A small Byzantine window with delicate stone tracery – reminiscent of windows on the façade of San Marco – is set into a garden wall near San Tomà, but it is certainly not in situ and may well have come from a church, if not from the East. Remains of three great round-headed arches in the courtyard known as the Corte Seconda del Milion, behind the church of San Giovanni Crisostomo, may possibly date from as early as the twelfth century (fig. 18). These arches,
Remains of house belonging to Marco Polo's family, Corte Seconda del Milion, early twelfth century
one of which preserves its carved Byzantine-style marble decoration, are believed to have once formed part of the nearby palace belonging to Marco Polo’s family.

Among the earliest surviving secular buildings are those erected for the Procuracy of Saint Mark on either side of Piazza San Marco after the Piazza was enlarged by Doge Sebastiano Ziani (1172–8). Their construction probably began at the beginning of the thirteenth century, under Sebastiano’s son, Doge Pietro Ziani (1205–29). Both wings were rebuilt in the sixteenth century, but their original appearance is faithfully recorded in Gentile Bellini’s painting, the Procession in Piazza San Marco, of 1496 (fig. 17). The north wing also appears in the great woodcut bird’s-eye view of Venice by Jacopo de’ Barbari of 1500 (fig. 83). From these depictions we know that the buildings were long two-storey wings with ground-floor porticoes containing shops, and arcaded balconies on the piano nobile. The round-headed openings of the lower storey are twice as wide as those above. The roofline is crenellated, more for decorative effect than for defence purposes. This type of building, which could be extended to any length simply by the addition of extra bays, was to have an important influence on later constructions in the Piazza; and as we shall see, it shares its two-storey arcades with some of the early Veneto–Byzantine palaces.

There is a curious time lag between religious and secular architecture in medieval Venice. The scarcity of surviving domestic buildings from the period of the final rebuilding of San Marco in the later eleventh century can be partly explained by the fact that many of the early lagoon houses were built not of brick or stone – or even ancient spoils – but of wood; and a series of terrible fires in the eleventh century ravaged almost every part of the city, and obliterated many of the early wooden dwellings. The more modest houses were, out of economic necessity, rebuilt in wood over and over again, despite the constant danger of fire; but from about the twelfth century onwards the wealthier families began to erect more durable palaces of brick with stone detailing.

Another important explanation is the economic one. It was in the thirteenth century, the period of the Fourth Crusade and the Venetian victories over the Genoese at Acre in 1258, Settepozzi in 1263 and Trapani in 1266, that Venetian maritime supremacy in the Adriatic became firmly established (although the Genoese still remained potentially dangerous rivals). By this stage Venetian merchants dominated trade in grain and salt in the Adriatic. They also had important entrepôt trade in silks and spices from the East, and wool and metals from northern Europe. The Venetian government exerted strict controls over shipping and trade, organizing convoys of armed galleys to protect the fleets of merchant vessels, whether merchant galleys or round ships.
powered by sail. Each merchant ship, however, was financed not by the state but by a private individual, or by a patrician family acting in a partnership of brothers known as a *fraterna.* The merchants could, if necessary, raise the money to finance a voyage by borrowing from other individuals, a system that allowed the owners of capital to spread their resources, to protect themselves against the loss of a ship through piracy, storms or war. The result of this efficiently run system of mercantile activity was that, by the thirteenth century, the more fortunate Venetians were becoming rather wealthy. It was these rich patrician merchants who now found themselves with the resources to build family palaces.

**Veneto-Byzantine Palaces**

The exact form of the earliest Venetian palaces is debatable, for those that survive have undergone centuries of alterations and embellishments. Moreover, there were many variations in the layout of the dwellings of the early settlers, on their scattered marshy islands separated by expanses of water. It will become clear, however, that they had little in common with the tall stone towers that the Italian nobility were erecting in other Italian cities. The construction of high buildings was hazardous in Venice because of the soft and constantly shifting nature of the terrain. The loss of a large number of the church *campanili* through the centuries is evidence for this, the collapse of the campanile of San Marco in 1902 being certainly the most dramatic example. Whereas early views of many Italian cities (Siena, Perugia, Florence and Bologna are good examples) show skylines thick with the great stone towers erected by the most powerful families in the twelfth and thirteenth centuries, in medieval Venice only the *campanili* were prominent landmarks on the horizon. True, some later secular buildings in Venice reached a great height, but this occurred only where there was an acute shortage of land (for example, in the Jewish ghetto (fig. 33)), or when a particularly rich family wished to display its wealth by building a palace that towered above all its neighbours (such as the two huge palaces built by the Corner family in the sixteenth century) (fig. 107).

Early Venetian palace builders lacked supplies of local stone with which to erect lofty towers, as well as firm foundations on which to build them. More important, the structure of their society did not create any need – physical or psychological – for such strongholds. The main function of the tall towers elsewhere in Italy seems to have been defensive rather than offensive. Although the twelfth-century traveller Benjamin of Tudela spoke of rival families fighting each other from the tops of their
towers in both Pisa and Genoa, this probably happened rarely.\textsuperscript{48} The towers did, however, give the nobility a sense of security and status in the frequent feuds that occurred between families.

In Venice things were different. In an attempt to prevent power struggles between individual families, the dogado was not made a hereditary office. Instead, although excluding virtually all but the nobility from the administration, the constitution allowed a remarkably democratic system of government within the patriciate itself. This unique system, which survived almost unchanged until the fall of the Venetian Republic in 1797, naturally discouraged internal rivalry and hostility among the upper classes. What is more, there can be no doubt that the constant fight against nature helped to unite the Venetian people, and gave them a sense of common pride in their city. Significantly, before the nineteenth century, even the grandest palaces were known simply as case, or houses, often shortened to ca', the title palazzo being reserved for the Palazzo Ducale.\textsuperscript{49}

The practical function of Venetian palaces was also different. The nobility earned their living not from landowning, as in other Italian city states at this period, but from seafaring and trade. As a result, their
homes had to serve not only as residences but also as the headquarters for their trading ventures. Although many of them invested profits in property in the city and on the mainland, this was not at first their chief source of income. The very way in which Venice was settled obviously meant that even at the outset land was extremely scarce. The feudal system and its aftermaths passed the city by.

One type of palace that evolved to suit the special needs of the Venetian patrician can be loosely defined on the basis of a few surviving Veneto-Byzantine palaces. Though only one of a range of experimental early house types, this formula was to prove the most enduring. The most impressive examples are the so-called Fondaco dei Turchi (now the Natural History Museum) and the pair of neighbouring palaces, Ca’ Loredan and Ca’ Farsetti (now the municipal offices) (figs 20 and 21). None of these palaces appears to date from before the thirteenth century. Ca’ Farsetti, then the property of the Dandolo family, was erected between 1200 and 1208/9. An old tradition records that Enrico Dandolo sent back some oriental marbles for the building after the fall of Constantinople in 1204. The Fondaco dei Turchi was originally built as a palace for the Pesaro family; it acquired its present name in 1621.
when it became the trading centre and residence for Turkish merchants in the city. In the nineteenth century the façade was completely refaced and its interior largely rebuilt, although its previous appearance is recorded in old plans, views and photographs (fig. 19). The façade of Ca’ Farsetti, too, was remade in the nineteenth century; and the two upper floors of both this palace and Ca’ Loredan, as well as their rear portions, are additions to the original Veneto–Byzantine structure. Nevertheless, a general idea of the type can be identified from examples such as these.

The main feature of these three early palace façades was the two-storey arcade along the waterfront, with the ground-floor portico for loading and unloading merchandise and household stores (fig. 22). The portico led into a great hall, called the androne, with storerooms and offices on either side and a kitchen at the back. The living quarters were upstairs, with the rooms leading off a great T-shaped central room, known as the salone or portego, over the androne. At the back was a courtyard with a well-head over a covered cistern and an open staircase. It is not improbable that there were low towers at each end of the façade, but these would have had no defensive function. Early views of Venice, such as the famous depiction of about 1400 by an English artist in a manuscript of Marco Polo’s writings in the Bodleian Library in Oxford, show ornate little turrets on many of the buildings. Some early dwellings, such as the house on the Riva degli Schiavoni where Petrarch stayed and the previous palace on the site of Ca’ Foscari, are definitely known to have had corner towers. There were, of course, many variations on the general theme, depending on the size and shape of the site. The position of the nearby canals was also important, since every house of any significance had to have both land and water entrances.

As we have seen, such defenceless, outward-looking palaces, with their porticoed façades, had little in common with domestic architecture in other medieval Italian cities. Several scholars have, however, made much of the curious affinity between early Venetian palaces and the smaller country villas of the late Roman empire, with their two-storey arcades and towers at either end. This classical building-type seems to have disappeared from the Italian countryside after the barbarian invasions, although we cannot be certain since most medieval farm buildings have now vanished. The type did, however, survive in the eastern Mediterranean after the division of the empire, and it may have been in the East that Venetian merchants found the inspiration for their early palaces. The question of the precise directions of influence in this case is still unclear, for in East and West alike architectural traditions evolved from common origins in Roman antiquity. Moreover, both Islamic and Venetian visual culture grew from Byzantine roots.
21 (above)  Ca’ Loredan and Ca’ Farsetti, early thirteenth century, with later additions

22 (left)  Ca’ Loredan and Ca’ Farsetti, plan of piano nobile of each, with earliest portions in black (after P. Maretto, L’edilizia gotica veneziana, Rome, 1961, p. 63)
Although the Venetian nobility did not become clearly defined politically until after the so-called serrata or closing of the Great Council, enacted by a series of measures from 1297 onwards, the magnificence of these surviving early palaces must be closely linked to their owners' trading successes. Their likely use as merchant headquarters as well as homes has led to the use of the term casa fondaco to describe their tripartite designs. The fact that the Venetian word fondaco derives from the Arabic fiinduq, or trading post, is evidence for the link with Islamic traditions. A true fondaco, however, was not a family home, but a dedicated centre for travelling merchants. Examples were found not only in Venice but also across the whole Mediterranean world from Spain to the Middle East, under a variety of other names such as khan, wakala and caravanserai. Typically, a fondaco, like its Islamic counterparts, is arranged in a quadrangle around a central courtyard over a covered cistern. The ground floor contains warehousing and perhaps stabling (except in Venice), with lodgings above.

Although the use of the term casa fondaco probably correctly reflects the combined residential and mercantile use of the early Venetian family palace, it is a misleading concept. The tripartite façades do show some similarities to the true fondaco, but early dwellings such as Ca' Loredan and Ca' Farsetti differ radically in their ground-plans from the supposed prototype. The fact that the Fondaco dei Turchi now has a large central courtyard results from the nineteenth-century remodelling, as if to bring it closer to the historical idea of the true fondaco. Instead, the 'typical' Venetian medieval palace evolved from a layout that was deep and narrow. Its basic elements were three parallel wings perpendicular to the façade, with smaller rooms on either side of a central circulation space, leading to a courtyard at the rear. The four parallel spine walls, running from front to back, provided the load-bearing structure. This structural system allowed the façades at front and rear to be generously perforated with windows and easily remodelled at will. It is notable how well this type of palace suited the needs of the Venetian merchant, and how easily it could be adapted to the peculiar physical conditions of Venice and varied to suit individual circumstances.

The rapid vertical accents of the porticoed Veneto-Byzantine façades – with their narrow bays, slender columns and tall stilted arches – allowed an effect of lightness to be achieved without weakening the structure. Only the main water entrance usually had a wider archway, for emphasis and convenience. The openness of the façade walls was not only decorative, but also had an important practical advantage in Venice, allowing as much light as possible into the buildings. This was especially significant in the case of the great central halls, which stretched far back from the façades. Because of the shortage of land in the city, the build-
ings were so closely spaced that relatively little light could enter from the sides and the rear.

We should not be too surprised to discover that away from the main canals domestic architecture took a somewhat different form. There are two fairly well preserved thirteenth-century façades in the Salizzada San Lio, which show that in relatively normal urban locations the architecture, had much in common with buildings of the same period in nearby mainland cities such as Padua (fig. 23). Both houses have shops on the ground floor opening directly on to the street, with the shop windows and doors framed by great stone piers and wooden lintels in the characteristic Venetian fashion. Each building preserves a fine thirteenth-century biforate window on the first floor, presumably once belonging to the main living rooms. One house has two high wings flanking a huge central archway; the other probably had the same form originally,
although one of the side blocks has now vanished. Both have been so completely rebuilt inside that one cannot reconstruct the original plans, but obviously houses such as these had a far more modest function than the larger palaces. They had neither facilities for loading or unloading merchandise from boats, nor huge central halls that would have occupied valuable space rather uselessly; the shops were probably for letting, as a source of income.

In mainland Italy the protective character of domestic buildings precluded elaborate decoration on the outer walls. In Venice, by contrast, an arcaded water frontage was a splendid vehicle for architectural expression. In the early thirteenth-century palace façades, as in the arcades of Piazza San Marco, Byzantine stilted arches created a rhythmic verticality. The large-scale importation of sculptural fragments and precious marbles into Venice after the Fourth Crusade is reflected in the inlaid medallions and Byzantine reliefs that adorn many thirteenth-century palaces. Meanwhile stonemasons from Lombardy and the Veneto were employed to carve exquisite capitals and mouldings, which harmonized effortlessly with the Eastern elements to produce a characteristically Venetian synthesis, well illustrated in the façade of Ca’ Loredan.

**Thirteenth-century Transformations**

During the thirteenth century a gradual change towards a less ‘transparent’ type of palace façade took place. In buildings such as the Palazzo Loredan and the Fondaco dei Turchi the side blocks were only subtly differentiated on the façade, by partly closing the porticoes on the ground floor and placing caesurae – in the form of solid piers or paired columns – in the upper colonnades. Later, however, it became more common to restrict the piano-nobile arcade to the centre of the palace, indicating the position of the huge portego inside, the room that needed the most illumination. A fine example of this arrangement, and one that nevertheless retains the typically Veneto-Byzantine stilted arches, inlaid Byzantine reliefs, basket capitals and finely carved string course, is the much restored Ca’ Donà (fig. 24). (The balustrade, as in the case of virtually all thirteenth-century palaces, is a later addition.) The ground-floor portico has here been abandoned, to be replaced by a single large water gate in the centre, leading straight into the androne. This more solid type of façade, in which the wall surfaces are visible, no longer concealed behind screening porticoes, must have been considerably cheaper and simpler to build. It was to become the most common arrangement – again with many variations on the theme – for waterfront Gothic palaces of the fourteenth and fifteenth centuries.
Naturally, the transition to the Gothic style also involved a transformation of architectural language. Ruskin identified a series of stages or 'orders' by which the Veneto-Byzantine arch evolved into the Gothic arch (fig. 55). To begin with, a small point or cusp appears on the outer rim, or extrados, of the stilted, round-headed arch. Then the inner rim, or intrados, also becomes pointed, to form a stilted ogee arch with a slight inflection in the crown. This stage can be seen as preparing the way for the introduction of the true Gothic arch, already widespread on the mainland in the thirteenth century.\(^62\)

Unfortunately, as Ruskin himself was aware, a Darwinian view of evolution, however elegant the scheme may be, cannot always be easily applied to architecture, for there is no direct, hereditary process by which 'genes' are passed from one palace to another. Furthermore, the relative age of thirteenth-century palaces is uncertain, and only a small fraction of those built survive today, most of them radically altered since that time. It would be a great over-simplification to place them in chronological sequence to fit Ruskin's evolutionary stages. The co-existence of different 'orders' in individual buildings adds to the difficulties. For example, in the Ca' da Mosto (later the home of the great fifteenth-century Venetian explorer, and subsequently a famous inn, the Osteria
Ca' da Mosto, later Osteria del Leon Bianco, second quarter of the thirteenth century, incorporating older elements on the water storey. The right side of the ground floor and the top two storeys are later insertions.
del Leon Bianco) the now fragmentary Veneto-Byzantine arcade on the ground floor is surmounted by a piano nobile that corresponds to Ruskin’s second stage, that is to say, with a slight inflection on the outer crown of the arch (fig. 25). The piano nobile is datable to the second quarter of the thirteenth century. In this case it appears that the building was rebuilt preserving parts of an older Byzantine waterfront portico. The lower arcade may have been moved forward from an earlier alignment, since the parts fit together somewhat awkwardly. The right-hand portion of the water storey and the top two storeys are later interventions.

Other examples, however, are more complicated. For instance, in the Palazzo Leon in the Corte del Remer, a wide Byzantine archway on the piano nobile adjoins a biforate window of Ruskin’s third stage which was apparently constructed at the same time. The more mature Gothic arches of the staircase below may have been added later. A glance at the religious architecture of the thirteenth century gives a further indication of the complexity of the subject. Gothic windows had already begun to appear in the fabric of San Marco in the twelfth century, whilst in the thirteenth century, as we have seen, there were attempts to conceal Gothic forms behind conventional Romanesque arches, as well as to insert even more exotic, orientalizing pointed arches. Meanwhile the great new churches built by the mendicant orders in the thirteenth century, which will be discussed in a later chapter, were probably being constructed in a plain, early Gothic style.

We should perhaps see the thirteenth century as a period in which several of Ruskin’s various ‘orders’ coexisted. The style of each building would have depended to a great extent on the tastes of the individual patron. Throughout the history of Venetian architecture, as elsewhere, there have been a few enlightened or avant-garde patrons, while the rest have been more conservative. At the same time conscious archaizing was probably always more prevalent in Venice than in other Italian cities. The fact that Venetian merchants travelled widely in the East must account for the appearance of the stilted ogee arch in the city, for this has a distinctly oriental flavour and is surely of Islamic origin. It did not appear widely elsewhere in Europe, and thus cannot be seen as an essential stage in the transition from the Romanesque to the Gothic style.
Chapter 3

The Medieval City

Venice as an Urban Environment

By the end of the thirteenth century the city of Venice was a true metropolis. The seventy or so principal islands of the archipelago, each one a separate parish, had been enlarged by drainage and reclamation until they coalesced to form a coherent urban organism, separated only by canals. By the 1330s, the population had probably grown to nearly 120,000 inhabitants, about the same figure as that recorded in 1969. Venice was then one of the largest cities in western Europe. It seems that only Florence, Milan, Naples, Palermo and, outside Italy, Paris were of comparable size.¹

At this point we should therefore pause to examine the urban structure of the city, its peculiar problems and its unusual features. The earliest known plan of Venice, datable to about 1346, shows clearly that the city was already a compact 'land-mass', although the representation is extremely schematic (fig. 27). The plan seems to be based on a twelfth-century prototype, partly updated by the copyist.² The only buildings shown are the more prominent churches and the crenellated enclosures of the Arsenal and Piazza San Marco. There are also some fortifications indicated on the landward side of the city. By this time there must already have been a network of streets (though these do not appear on the map) as well as canals. To a great extent the layout still survives today, but one can gain an even better idea of the character of Venice in the Gothic period from the wonderfully detailed and reliable bird's-eye view of the city by Jacopo de' Barbari, which is dated 1500 (figs 4, 31, 35, 83 and 87).³

Like other major European cities – London, Florence, Paris and Rome are familiar examples – the city of Venice is traversed by a principal waterway, in this case the Grand Canal, which winds in an inverted s-shape through the city. One could safely say that all important cities in medieval Europe had water access, since water transport was the cheapest method for conveying supplies and merchandise. In most cases, however, there was a clear demarcation between land and water, whereas
Plan of Venice, c. 1346, from the Chronologia Magna, redrawn from a twelfth-century original (Biblioteca Marciana, Venice)
obviously in Venice – as in some towns in the Low Countries such as Amsterdam – the whole city was criss-crossed by canals. A number of the original canals have now been filled in to make streets, but their presence is usually recorded in the street names by the words rio terà. The term piscina records a former area of water reclaimed later than the areas around it.

Like London, Venice had only one bridge across the main waterway. This was the Ponte di Rialto, situated at that most significant geographical landmark, the lowest bridging point – that is to say, the most seaward position at which a bridge could easily be built. It was also the uppermost point to which sea-going vessels could navigate. The original pontoon bridge was replaced at the end of the fourteenth century by a permanent wooden structure. This bridge came to a dramatic end in 1450 when it collapsed under the weight of crowds of spectators during the visit of Emperor Frederick III of Austria. The bridge was rebuilt, once again in wood, with a drawbridge in the centre, this time lined with shops, like the Ponte Vecchio in Florence. This picturesque structure is vividly depicted in Carpaccio’s famous painting of the Miracle of the True Cross dated 1494 (fig. 28). The present stone bridge, built by an architect named (most appropriately) Antonio da Ponte, dates from the end of the sixteenth century (fig. 29). The importance of the Rialto bridge to the Venetians is indicated by the fact that the State had commissioned designs from architects as renowned as Michelangelo, Sansovino, Palladio and Vignola. Even da Ponte’s relatively sober project cost the huge sum of 250,000 ducats.

The first bridges over the smaller canals were also built of wood. Even today wooden bridges are still common in the city, although nowadays the walking surfaces are usually asphalted. Later, brick and stone bridges were also erected, built in a characteristic low arc, with broad, shallow steps. These early stone bridges – surviving examples can still be seen near the church of San Felice (fig. 30) and on the island of Torcello – had no railings at the sides. Until the eighteenth century, rival factions of workers used to have spectacular fist-fights on the tops of these bridges, with many of the less fortunate assailants toppling into the water.

The Rialto bridge continued to be the only fixed crossing point on the Grand Canal until the 1850s, when bridges were erected at the Accademia and the railway station. Anyone wishing to cross the Grand Canal at another point could avoid the detour to the Rialto bridge by taking a traghetto or gondola ferry. These traghetto (some of which still function today) were operated at thirteen different points along the Grand Canal. One of the traghetto even crossed beneath the Rialto bridge, to save people the trouble of climbing its steps. The English
traveller Thomas Coryate, writing in 1611, warned visitors against this particular crossing, claiming that:

... the boatmen that attend this ferry are the most vicious and licentious varlets about all the City. For if a stranger entreth into one of their Gondoloas, and doth not presently tell them whither he will goe, they will incontinently carry him of their owne accord to a religious house forsooth, where his plumes shall be well pulled before he commeth forth againe.7

The traghetto jetties can be recognized by their waterside platforms
29  Rialto bridge, by Antonio da Ponte, 1588–91

30  Stone bridge near San Felice
decorated with trellises of vines and lamps. Until they were largely superceded by the vaporetto service, the positions of the traghetti remained unchanged. It would be no exaggeration to say that the layout of streets, houses and shops was therefore just as much affected by their presence as by the positions of the city's bridges.

Again like London, medieval Venice had two important centres – the commercial centre on the island of Rialto and the political centre at Piazza San Marco. The episcopal centre at San Pietro di Castello never had the significance of, for instance, the Piazza del Duomo in Florence, or those of Milan or Pisa. San Marco and Rialto were the highest and driest of the marshy islands, and therefore provided the firmest building sites for the early settlers. Unlike the cities of London and Westminster, however, the commercial and political centres of Venice lay not on the same bank, but on opposite sides of the principal waterway. This gave even greater importance to the link provided by the Rialto bridge. The street connecting Rialto with Piazza San Marco, known as the Merceria, was the most frequented thoroughfare in the city. As a result, there was a heavy concentration of shops in and around the Merceria. Nevertheless, in spite of the great importance of the route, it never became a broad, stately highway, since no wheeled traffic apart from hand-carts used it. To this day it is narrow, crooked and often badly congested.

This observation leads us to consider the very distinctive transportation system within Venice itself, and its effects on the planning of the city. To a modern planner Venice has certain utopian features. In particular, pedestrian traffic in the city has never been seriously threatened by wheeled vehicles other than barrows. Even before the days of the motor car, Venice was far quieter than other cities. Henry James remarked in 1882:

There is no noise there save distinctly human noise; no rumbling, no vague uproar, nor rattle of wheels and hoofs. It is all articulate and vocal and personal. One may say indeed that Venice is emphatically the city of conversation; people talk all over the place because there is nothing to interfere with its being caught by the ear... The still water carries the voice, and good Venetians exchange confidences at a distance of half a mile.

In Venice pedestrians and goods traffic are conveyed on completely separate, overlapping systems. Obviously, the two superimposed communication patterns did not evolve completely independently. Every market had to have both land and water access. We see from de' Barbari's map that Campo San Polo, which was the site of one of the two principal weekly markets in the city (the other was in Piazza San Marco), originally had a canal along its curved side to transport goods to the
stalls (fig. 31). Similarly, every important palace had to have water access as well as a street entrance. A canal mooring was needed to bring in supplies of food and fuel, and for loading and unloading merchandise when the owner was involved in trade. Until the nineteenth century, wealthy families would have owned at least one private gondola for their own use, as well as small flat-bottomed boats called sandoli for carrying goods. These were tied up at the characteristic decorated wooden mooring posts in front of the palaces. Although there were a few horses in Venice, the Venetian palace obviously had no need of extensive stables; and in Venice boatyards, or squeri, took the place of coach-builders in mainland cities (fig. 32). Horse-riding in the Merceria was forbidden in 1297; after that time riders used to tie their horses to a leafy fig tree at the Rialto end of the street. 10
The layout of the canals was determined by the natural position of the lagoon channels. Although these were altered slightly in the process of drainage and land reclamation, it was essential not to impede the natural flow of the tides, which was vital for the removal of sewage and debris from the canals. Regular dredging has always been necessary to prevent the silting up of the navigational channels, both in the city and in the shallow waters of the lagoon. For the earliest settlers, water was the only important means of transport, since the individual islands were too small for streets to have much significance.

In contrast to the canals, the layout of the pedestrian walkways seems incoherent. Venice is one of the few important medieval cities that had no significant Roman settlement on the site. Most Italian cities still preserve traces of the regular Roman grid pattern in their street plans, but Venice has few straight streets of any length. Indeed, the labyrinthine residential quarters recall the dense urban layouts of Islamic cities, familiar to Venetian merchants through their trading activities. Each parish was built up street by street around its own church and campo (literally a field, though by the time of de' Barbari's map most campi were paved) in the centre of each island.

Although archaeology in the city is problematic, a possible pattern of evolution in the structure of the city can be suggested. In the most ancient parishes, established before the transfer of the dogeship to the Rialto in 812, the society was almost totally dependent on water trans-
port. The most powerful families apparently lived around small enclosed courtyards, forming a cellular pattern, traces of which still remain – for instance in the area around San Giovanni Crisostomo (fig. 18). From the ninth century onwards, numerous land reclamation projects enlarged each of the islands until they began to coalesce. Moreover, the more open mercantile society that was evolving began to need land as well as water transport, to provide quick internal communication. By the thirteenth century, settlements were growing up in a linear pattern along continuous streets, such as the Salizzada San Lio (fig. 23), while the existing closed courtyards were linked by connecting passages. The typical parish campo is rectangular or polygonal in shape, with the church on one side and residential developments extending outwards along transverse streets (fig. 50).

The streets of one parish met those of another almost accidentally when, in the process of land reclamation, the islands joined up. In consequence, though the principal thoroughfares were linked by bridges over the canals, the other streets did not fit together so easily. It is still possible in a map of modern Venice to detect discord in the street patterns at parish boundaries. At the edges of the parishes, bridges often cross the canals at an angle because the streets are out of alignment, or come to a dead end on a canal bank. Because of the absence of fast, wheeled traffic, there was little need to eliminate kinks in the street network. The pedestrian could easily scuttle round corners that a horse-drawn coach could not possibly have negotiated. Some of the streets of Venice are less than one metre wide. In Goethe's words: 'As a rule one can measure the width of an alley with one's outstretched arms; in the narrowest one even scrapes one's elbows if one holds them akimbo.' Other medieval cities had their share of higgledy-piggledy, narrow, winding streets, but few such labyrinths have survived on a large scale because of the danger of fire and the problems of traffic congestion and overcrowding.

All these difficulties struck Venice, too, but it was harder to eliminate them. Fires were an ever-present hazard in the city, and because of the closely spaced buildings they spread rapidly, especially in windy conditions. Venice was to some extent fortunate, in that most parts of the city had nearby canals to supply water for fire fighting, but this did not prevent numerous, terrible conflagrations. Possibly the most traumatic of all was the fire that devastated virtually the whole of the island of Rialto in 1514, but the chronicles and histories of Venice record many other major fire disasters.

Traffic congestion on both streets and canals was a perpetual worry, and was controlled by strict government legislation. Special magistracies were responsible for keeping the streets and canals free of obstruction. All private individuals had to apply to these magistracies for planning permission to build in the city. Careful measurements were then
taken of the widths of the neighbouring streets or canals, to ensure that any new buildings would not encroach on public property. There was a constant struggle to regulate the number of stalls obstructing the streets, porticoes and public open spaces of the Rialto and Piazza San Marco. Heavy fines and even short terms of imprisonment failed to deter the illegal stall-holders, eager for custom in the most frequented parts of the city. A resolution was even passed in 1548 ordering pig owners to ensure that their animals did not run loose in the streets.

Keeping the streets clean was not easy. The English visitor James Howell, who wrote in 1651 that the streets of Venice were ‘... so neat and evenly paved, that in the dead of Winter one may walk up and down in a pair of Sattin Pantables and Crimson Silk Stockins and not be dirtied’, must have been exceptionally lucky with the weather. Writing in Venice in 1786, Goethe had a lower opinion of Venetian streets:

If only they would keep their city cleaner!... On rainy days a disgusting sludge collects underfoot; the coats and tabarros, which are worn all year round, are bespattered whenever you cross a bridge, and since everybody goes about in shoes and stockings – nobody wears boots – these get soiled, not with plain mud, but with a vile-smelling muck.

Overcrowding was a problem that Venice could do little to remedy, for there was not much scope for expansion on the margins of the city. Whereas in a mainland city such as Florence a series of new walls enclosed progressively larger areas as the city grew, Venice could only grow by the painful process of draining land from the lagoon (fig. 4). The shortage of land was most acute in the quarters around the Rialto and Piazza San Marco. The demand for property in these central zones made the price of land tremendously high. Sites on the Grand Canal, which had the advantage of prestige as well as a fine view, were also much sought after. The high land values led to certain characteristic features in the city’s architecture. A house owner could more cheaply extend his accommodation by adding an extra storey on top of his own building than by acquiring a neighbouring site. One can often see the various floors of a palace built in progressively later styles towards the top – conspicuous examples include the Ca’ da Mosto and the Palazzo Priuli-Bon at San Stae (figs 25 and 56). As Goethe put it: ‘The houses grew upward like closely planted trees, and were forced to make up in height what they were denied in width.’ The most extreme example of this process of upward growth can be seen in the former ghetto (called by the Venetian word for iron foundry, since there was once a foundry on the site) where all Jewish residents were forced to live from 1516 (fig. 33).

A house owner could also enlarge his living accommodation by building out his house over a public street, so that the street passed through

33 View of the Ghetto Nuovo from outside
a short arcade known as a *sottoportego* (fig. 106). Except in Piazza San Marco and the Rialto market, continuous shopping arcades like those of mainland cities such as Padua and Bologna are not found in Venice, where the streets are too narrow, but these space-saving *sottoporteghi* are very common.

Another means of expanding the interior space in a dwelling was to project the upper storeys a short distance over the street, supported on wooden jetties or stone corbels. One of the most interesting examples is the street picturesquely named the Calle del Paradiso, adjoining the Salizzada San Lio (fig. 34). The narrow street is flanked by shops and workshops on each side, with staircases leading to the living apartments above, a layout typical of Venetian small-scale property developments. The upper floors project on either side almost to within arm’s reach of each other. At each end of the street they are joined by decorative Gothic arches – a device commonly used in Venice to indicate property ownership. The arch at the canal end is decorated with a relief of the *Madonna della Misericordia* and dated 1407, but the buildings themselves have probably been replaced in piecemeal fashion, for the dates of the various parts range from the thirteenth to the sixteenth centuries.

Despite the serious shortage of land, there are open spaces in Venice. Francesco Sansovino claimed that all the parish *campi* placed side by
side would make an area large enough for the site of a whole city. There have always been plenty of private gardens, even in the more central parts of Venice. The visitor on foot is hardly aware of the gardens, concealed behind high walls; but when seen from the top of the campanile of San Marco, the city does not in fact lack greenery. Sansovino mentioned all the most famous gardens in his guidebook in 1581, admiring their fountains, rare plants, sculpture and even paintings. According to de’ Barbari’s map of 1500, the island of Giudecca was then occupied by pleasant suburban villas with extensive gardens (fig. 35). At that time expansive gardens, orchards and vineyards occupied the peripheral quarters, now mostly built up. Just as any walled city in the later Middle Ages included cultivated areas, chiefly market gardens, inside the fortifications, so Venice had semi-rural areas within the boundaries of the city, to provide fresh fruit, vegetables and dairy produce.

Before the twentieth-century wave of emigration, with large numbers of the inhabitants moving to the neighbouring mainland town of Mestre, the population pressure in Venice was alleviated only by natural causes, in the form of high mortality rates and outbreaks of plague. Epidemics spread easily in the overcrowded conditions, especially since no one realized that bubonic plague was carried by rats, and typhus by lice. By far the most terrible pestilence was the Black Death, which killed 50 or
60 per cent of the population of the city between 1347 and 1349.28 A series of lesser epidemics struck the city at intervals during the next two centuries, but these did not have a significant effect on the population. For instance, after the severe famine of 1527, serious outbreaks of typhus and bubonic plague occurred, but so many of the victims were starving peasants from the mainland, who had migrated to Venice in search of food, that the resident population was reduced by only about 4 per cent. During the sixteenth century the population rose rapidly, to reach its all-time peak of 190,000 before the next great plague of 1575–7, when one-third of the inhabitants of Venice perished. Another outbreak of similar magnitude occurred in 1630–31. On each occasion there was a rapid, partial recovery in population, as immigrants from the mainland flocked into the city to take up the vacant jobs. In general the population of Venice since about 1300 has remained remarkably stable, fluctuating between about 100,000 and 140,000 for most of this period. The figures refer to the city itself, which has no sprawling suburbs on account of its restricted site. This fact obviously distinguishes Venice from other important European cities; but we must not forget that the city did develop its own suburbs on the nearby mainland and on the Lido.

Building Materials and Techniques

Venice is founded on sand, silt and clay, topped by gravel in the higher spots such as Piazza San Marco and the Rialto. Most visitors think of Venice as flat, but anyone who lives in the city for some time soon learns that there are minor variations in elevation, for the lower parts are more likely to be flooded in the high tides. In reality Piazza San Marco is no longer one of the highest points; its level has sunk, not only because of the subsidence resulting from the removal of artesian water from the bedrock of the lagoon, which has affected the whole city, but also on account of the great weight of buildings around the Piazza, which has compressed the subsoil over the centuries. In the streets, the paving stones are laid directly on to the sand, as one can clearly see when repairs are carried out. Before the fifteenth century few streets were even paved – they were merely paths of beaten earth.

Buildings naturally need a more elaborate substructure than the paving of streets. In the first areas to be settled, the ground was firm enough to proceed without special foundations. In these parts, alder stakes about one metre long supported a horizontal platform (known as a zatterone or large raft) of elm and larch and foundation walls of large stone blocks. Elsewhere the foundations depended on the firmness of the subsoil and the weight of the building to be erected.29 The main principle of Venetian building construction is that the buildings, in effect, were
designed to 'float' on the wet sand and mud, in order to resist the constant movement caused by the tides. Because of the high cost of oak timbers, pile foundations were used only when strictly necessary: for example on the edges of canals, beneath heavy or tall structures, or on exceptionally soft terrain. It is important to remember that the piles did not reach solid rock, but served to stabilize structures in the soft lagoon mud. Every substantial building on a poorly consolidated site had to be supported on oak piles, driven deep into the alluvial clay by teams of labourers with heavy hammers, cheered on by rhythmic beating songs. These piles were at least three metres long. Most were sunk underneath the structural walls of a building, those that had to carry the greatest load. Interior dividing walls had less substantial foundations, a fact that has led to subsidence in many cases. Like the wooden zatteroni, the piles remain constantly wet, allowing them to resist decay over centuries. Indeed, pile foundations can be reused over and over again, a factor that has contributed to the enduring character of Venetian plan-forms.

Preparation of the site for building was an elaborate procedure. Clay was excavated from within the solid line of piles marking the perimeter walls. Along the edge of a canal a stockade of piles lined with wooden planks served to keep water out of the foundations during building, and a moat was dug around the edge before the site was drained. If necessary, more piles were sunk beneath the structural walls, and sometimes in the central space as well, and the ground was built up with layers of crushed brick and stone and larch rafts set in lime mortar. The tops of the piles were smoothed off about three metres below the high-tide level, to serve as a base for the zatterone, formed of two layers of larch planks, each arranged at right angles to the one below, that helped to spread the weight on the soft ground. Buildings were liable to subsidence if loads were unevenly distributed on the zatterone, because of the continual movement of the tides through the subsoil. The foundation walls were built very wide at their base, narrowing gradually towards the high-tide level.30 Horizontal layers of impermeable Istrian stone in the foundations discouraged rising damp. If the whole base wall was not built of Istrian stone, it would be faced with a layer of the white stone on the outside, and lined with clay on the inside.

Brick was the most common building material in Venetian architecture, for it was economical, lightweight and permeable (allowing moisture to dry out).31 The bricks made of clay from the nearby mainland have a rich red-brown colour, which gives a characteristic element of warmth to the townscape. Terracotta roof tiles came from the same source. In the brick walls the pointing was composed of traditional lime mortar, flexible enough to allow a degree of movement on the unstable foundations.
Many of the brick walls that are now exposed were once completely covered with a thin layer of stucco. The typical Venetian stucco was cocciopesto, made of ground terracotta tiles in a base of slaked lime and water, producing a warm red colour like that of the brickwork. A more glistening finish could be obtained from the use of marmorino, a stucco of a similar composition but with the addition of granules of Istrian stone without any sand. Examples are still visible, though modern stucco work is coloured artificially. Some of the stuccoed walls were covered with a light grey plaster and then frescoed, but the wall-paintings soon perished in the humid, saline atmosphere. Fragments of frescoed figures by Giorgione and Titian, rescued from the Fondaco dei Tedeschi, can be seen in the Ca’ d’Oro and the Accademia.

There is no local stone in the immediate vicinity of the lagoon. The soft yellowish limestone quarried near Padua, like the sandstone of Antonio da Canal, called Canaletto, *The Stonemason’s Yard*, before 1725, showing the preparation of stone for the new façade of San Vidal. The church, monastery and scuola of the Carità can be seen on the opposite bank of the Grand Canal (National Gallery, London)
Vicenza, weathers so easily that it could not be used in Venice. The building stone most widely used in the city was the brilliant white, marble-like limestone from Istria, which could be cheaply transported from the quarries by sea. Though hard, Istrian stone is easy to carve because of its fine, even grain. Yet, being virtually impervious, it is remarkably resistant to weathering, even in the humid, saline and now badly polluted atmosphere of Venice. Canaletto’s evocative painting in the National Gallery, London, known as The Stonemason’s Yard, shows stoncutters preparing huge blocks of Istrian stone for the new façade of the nearby church of San Vidal (fig. 36). Details such as window frames, capitals and bases, cornices, gutters, steps, balustrades and doorways are generally of Istrian stone. As mentioned, the use of the same stone up to the high-water mark of a building helped to impede rising damp in the walls. (Unfortunately, as a result of subsidence, these damp courses are no longer effective.) From the Renaissance onwards, the grander buildings were faced entirely in Istrian stone, concealing the brick walls beneath. These façades radiate a dazzling brightness in sunlight, especially where they are exposed to the rain that washes away accumulations of grime and soot (e.g., fig. 74).

In the more expensive buildings, red marble from Verona was imported for carved details such as portals and fireplaces. This stone
has a glowing rust-red colour when polished, although it weathers to a rougher, pale pink surface. The weathering process is well demonstrated by the two red marble lions in the Piazzetta dei Leoncini behind San Marco, whose backs are polished to a shiny red by many generations of Venetian children riding them, while the rest of their bodies have turned a dull pink. The restoration of the Loggetta at the foot of the campanile of San Marco in the 1970s revived the red polished surface of the Verona marble, which had faded through the same weathering effect (fig. 104). Unfortunately, since then, the silicon resin applied to seal the newly cleaned stone has turned milky and dulled the rich red colour. A checked pattern of red marble from Verona or Cattaro and white Istrian stone was popular for the paving of ground-floor rooms such as androni and church naves.

Other precious marbles added to the prestige value of a building. As we have seen, San Marco is adorned with rare oriental marbles, many of them looted from Constantinople (fig. 16). The façade of the Palazzo Vendramin-Calergi (now the winter Casinò), built at the beginning of the sixteenth century, incorporates porphyry, serpentine and veined oriental marble (fig. 82). The cleaning and restoration of the façade of the Scuola Grande di San Rocco in the 1990s revealed a stunning profusion of rare, costly marbles. As well as the red Verona marble just mentioned, the Loggetta, built by Jacopo Sansovino from 1538 to 1545, has carved details of white Carrara marble, Istrian stone and the dark-green stone known as verde antico, while the columns are of various rare oriental marbles (fig. 104). The same architect, sent to restore the church at Pola (now Pula) in Istria, removed the priceless marble columns for use in his own buildings, chiefly the Library.36 (He replaced them by brick piers, but within a decade the ‘restored’ church at Pola was a total ruin.) One of the most remarkable instances of the ostentatious use of costly materials was the Ca’ d’Oro, built by Marino Contarini in the early fifteenth century (fig. 59). As we shall see, the building accounts show that the façade was not only decorated with precious marbles, but was once also painted in ultramarine (the most expensive colour pigment of all, made from ground lapis lazuli) and gold.37

Wood was the indispensable raw material for the Venetian building industry.38 It was needed not only for piles but also for ceiling timbers and roof beams. Dalmatian oak, imported by sea, was the most resilient wood for piles, though it was restricted in length. Oak supplies were also floated by river to Venice from Friuli and from the area around Treviso (fig. 4). By the early thirteenth century coniferous wood, chiefly larch or fir, was already being floated down to Venice along the rivers from the forests of Cadore in the Dolomites. This softer type of wood was especially useful for ceiling beams, not only because of the length of the timbers but also on account of their light weight, elasticity and high
resin content to resist damp. The usual length for wooden joists varied between 5 and 6.5 metres; this determined the standard spacing of structural walls, thus giving a remarkably consistent grain to the city. On the unstable Venetian soil the greatest possible flexibility was needed in a building to absorb minor shifts in the foundations. For this reason, vaulted ceilings are rarely found in Venice, except in churches where they are usually supported by wooden tie beams.

Ceiling beams were closely spaced to spread the load more evenly, and nailed to a horizontal wooden beam set into the inner face of the wall. In addition, at regular intervals, iron tie rods secured to blocks of Istrian stone in the outside of the wall could be fixed to the joists.\(^{39}\) Such blocks of stone still visible in the façade brickwork indicate the position of the internal floors. The joists were topped by two layers of wooden planks, arranged at right angles to each other – the so-called Sansovino ceiling. The visible timbers were often richly decorated with painted or carved designs.\(^ {40}\) With the huge demand for wood – especially oak – for the Venetian shipbuilding industry, the mainland forests were becoming badly depleted by the end of the fifteenth century. As a result the price of wood rose sharply, but there was no possible substitute in the building trade. The foundations alone might cost as much as a third of the total cost of a building.\(^ {41}\) Building accounts preserved from the restoration and extension of Ca’ Giustinian in the 1470s show that wood accounted for 43 per cent of the total cost of materials.\(^ {42}\)

Wood was also needed for roof construction. As Francesco Sansovino remarked, ‘The roofs of the [private] buildings are usually hipped [in quattro acque].’\(^ {43}\) His wording reminds us of the important function of the roof as a catchment area for rainwater, which had to be collected in a continuous Istrian stone gutter around the roofline. Like the ceilings, roof timbers were of larch or pine. The rafters were closely spaced and overlaid with thinner purlins, above which a layer of flat tiles formed a base for the characteristic curved tiles, semicircular in section, on the top.\(^ {44}\) In all larger buildings a truss system had to be adopted to span the whole roof, either by placing the trusses over the internal partition walls, or using the so-called Palladian truss, from which the ceiling below could be suspended with iron straps.

The need for flexibility also fostered the development in Venice of special types of flooring.\(^ {45}\) In the simplest houses, the floors were merely bare wooden boards or sometimes brick tiles, with beaten earth in the ground-floor rooms. A more elegant surface, known as pastellon, was composed of ground tiles and bricks set in lime mortar and polished to bring out the red terracotta colour, which was intensified by the addition of the pigment cinnabar in the top layer. From the fifteenth century onwards, pastellon was largely superseded by a more decorative version called terrazzo.\(^ {46}\) In living apartments this surface, like pastellon, was
laid on top of the boards covering the ceiling of the floor below. It was made up of two layers of crushed brick and stone set in lime mortar, each layer well beaten down with battering rams for several days. Several months had to elapse between the laying of the two layers. The top layer also contained chips of coloured marble, so that when it was smoothed off with mill stones and oiled with linseed oil the effect was like a random mosaic. As in the case of pastellon, the lime base and tiny stones gave a certain elasticity to the floor surface, so that it could resist minor stresses and strains without cracking. If cracks did appear, it was a fairly simple matter to lay another thin layer of terrazzo on top. According to Francesco Sansovino, terrazzo floors were so highly polished that one could see one’s own reflection in them, and carpets were even put down to prevent footprints marking the floors.47

The other Venetian building practice that greatly impressed foreigners was the extensive use of glass in the windows.48 The glass industry on the island of Murano, and even Venice itself, was flourishing by the end of the twelfth century. Glass furnaces were finally banned from Venice in 1291 because of the risk of fire, and the industry became concentrated in Murano.49 Francesco Sansovino, writing in 1581, claimed that even the humblest buildings in Venice at that time had glass windows, whereas other cities had to make do with oiled canvas or parchment.50 The round discs of clear bottle glass were held in place by lead and iron, in wooden window frames, as one can clearly see in Carpaccio’s painting of the Dream of Saint Ursula in the Accademia (fig. 38). (This picture gives a vivid impression of a Venetian bedroom in the late fifteenth century.) Some bottle-glass windows still exist in Venice, though most have been replaced by plate glass. As we have seen, Venetian buildings needed the largest possible windows to admit light in the cramped surroundings, but without the local supply of glass large windows would have been unthinkable in the Venetian climate.

Iron was not used very extensively in Venice, for it tends to corrode in the damp climate, but small quantities of iron were needed in every building for door locks, window fittings, hinges, railings and other such details.51 The usefulness of iron to secure floor joists and to suspend ceilings from trusses has already been mentioned. From the nineteenth century onwards it became common practice to secure leaning structures with iron tie beams. Earlier, iron chains had been used for the same purpose. Neither method proved very satisfactory in the long run, since iron is too rigid to accommodate minor movements in the structure. Buildings restored in this way have tended to develop serious cracks in the stone blocks in which the iron was fixed. Furthermore, the effect of the iron rusting where it comes in contact with the atmosphere has caused corrosion in the walls around the points of insertion of the tie rods or chains.
Each building technique was carried out by specialist craftsmen belonging to separate artisans’ guilds. There were bricklayers, stone-masons, terrazzeri, carpenters, glaziers and smiths. These craftsmen had to serve an apprenticeship of five to seven years, usually starting at between 12 and 15 years of age, followed by a period of two or three years as assistant to a guild member. At the end of the training they had to take a test to prove their competence, before they were admitted as
capomaestri or master craftsmen. Sons of guild members, if apprenticed to their fathers, were exempted from the final examination. The successful candidates in the terrazzo-makers’ test, which involved making a floor of eight Venetian square passi (paces), not only had to pay a fee but also had to invite the examiners to dinner. The labourers who assisted the maestri were not guild members, except in the stonemasons’ yards, but were casual employees paid by the day. Each workshop had one capomaestro, who employed two or three assistants in addition to his own sons and his apprentices. The patrons, or groups of individuals, wishing to erect a building usually did their own subcontracting. They invited estimates from various craftsmen for each job, and awarded the contracts to the maestri offering the most favourable terms. Only the stonemasons supplied their own raw materials, for they had to choose the most suitable stone for each job. Otherwise a patron had to arrange separate contracts with the suppliers of bricks, lime, sand, wood and iron, as well as with boatmen to transport heavy cargoes, such as mud excavated from the canals or rubble for the foundations. By this system each artisan needed very little capital. He merely had to own or rent a workshop and provide his own tools. And indeed he had little opportunity to accumulate capital. Both the practice of subcontracting by the patron, which prevented the growth of larger scale firms of all-round building contractors, and the statutes of the individual guilds discouraged the acquisition of wealth or power by a single craftsman. The skilled artisan was a respected member of Venetian society, but he was kept firmly in his place.

As elsewhere in medieval Europe the designers of buildings, like other artists, were rarely named or recorded in documents, and few of their works of art were signed. It should not, however, be assumed that in the Middle Ages buildings grew almost organically, fed by a kind of communal urge to build. Most architectural designs were probably the product of close collaboration between the patron and the chief artisan, usually a stonemason, and it is the identities of the patrons rather than the architects that have survived to posterity. Before the Renaissance, when the value of creative genius at last began to command as much respect as the wealth and enterprise of the patron, it is rarely possible to identify the artistic personalities of individual architects. The fact that the title architectus was not used in Venice until as late as the 1470s, apart from one known isolated example in 1455, is symbolic of the change in attitude that came about at this time.
Essential Services and Other Amenities

The peculiar physical environment of Venice, the building techniques adopted and the particular functions of the buildings have all contributed to the special character of Venetian architecture. The provision of essential commodities such as heat, light, water supply and sewage disposal also led to solutions that have left their imprint on the urban landscape. Certain distinguishing features are immediately obvious to the visitor, others are less easily recognized, but all show a high degree of adaptation to the surroundings.

Every dwelling in the city needed efficient heating. Venetian winters can be bitterly cold, especially when the piercing wind called the bora blows from the north-east. Snow is not uncommon, though it rarely lies for long because of the proximity of the Adriatic sea. The most famous frost was probably that of 1788, recorded in an anonymous painting in the Museo del Settecento at Ca’ Rezzonico. But in spite of the fact that the temperature rarely falls far below freezing point, the constant dampness gives a raw chill to the winter air.

Renaissance portraits show that it was fashionable for those who could afford it to dress in furs and heavy velvet cloaks – and with reason. As late as 1849, in a letter of 3 December, Effie Ruskin complained of the cold in Venetian palaces:

...We went today and looked over several Palaces but although the outsides are splendid Venetian Gothic I cannot fancy how the Italians live, for the insides although perfectly clean have such a want of comfort about them ... and no fire places, even in this cold weather. Each member of the family carries about on their arm an earthen basket or pot with hot charcoal in it ... The tessellated floors, although very smooth and glittering, are extremely cold and all their arrangements seem made for heat and not cold.\(^5\)

The great central halls, or porteghi, of Venetian palaces were usually unheated, and with their huge expanses of window at either end they must have been extremely draughty. We read in Francesco Sansovino’s guide of 1581 that:

All the bedrooms have fireplaces, but not the living-rooms. This is certainly wise, because when one gets out of bed, the fire is nearby, not only to dry the humidity which one gathers around oneself when sleeping, but also to heat the rooms and to purge the evil vapours which rise from the air or other sources.\(^6\)

Sansovino also believed that centuries of burning fires had in some way purified the unhealthy air that the first settlers encountered in Venice.\(^7\)
Fireplaces were usually on the outside walls, arranged one above the other, their flues connected to the same chimney. The disposition of windows in pairs, with a space between, commonly seen on the exteriors of buildings such as the façade of the Fondaco dei Tedeschi, indicates a sequence of rooms in the living apartments inside, each with one window on either side of the fireplace. In the more modest buildings the chimneys often projected outwards from the side of the building, in order to save valuable space in the interior.58 The smaller dwellings were obviously easier to heat than the great palaces, so that the poorer people could at least survive without fine furs and rich materials.

The distinctive chimney pots, which appear in views of Venice from Carpaccio to Canaletto, and a few of which still survive today, were one of the most curious features of the Venetian townscape (figs 28 and 36). Of unusually large size, they were generally in the form of truncated, upturned cones, although there were many other variations. It is revealing that this was also the characteristic shape of the funnels of early American wood-burning steam trains, wood being the fuel normally used in Venice. The main function of the chimney pots was to prevent sparks from escaping from the flues, for the risk of fire in the city was always a problem. They served not only as cinder traps, but also, of course, to keep out the rain and perhaps to improve the drawing power of the fires by impeding down draughts in the chimneys. The Venetians evidently took pride in embellishing these conspicuous terracotta chimney pots with painted or relief decoration, as one can see, for example, on the left side of Carpaccio’s painting of the Miracle of the True Cross (fig. 28).

The small enclosed courtyards that punctuate the dense urban fabric of Venice were important for the provision of both natural light and fresh water. Some were private courts inside palaces, usually placed at the back or on one side; others gave access to a number of more humble houses, generally the property of a single landlord. Until the sixteenth century, staircases were generally accommodated in the courtyards, to save space inside the buildings. The poorer dwellings had simple wooden ramps, while palaces were provided with elaborate stone staircases with carved balustrades, some originally roofed with wooden canopies. The most flamboyant external stairway in the city is the splendid spiral staircase known as the Scala del Bovolo (bovolo is the Venetian dialect word for a snail shell), built for a branch of the Contarini family around 1499 (fig. 26).

The provision of an adequate supply of fresh water has always raised problems in Venice, for the canal water is saline and polluted by the discharge from the city’s drains. Because the rain normally provided all the drinking water, elaborate provisions were made for its collection and storage. Public wells in the parish campi were fed by rainwater collected in underground cisterns. These yielded enough water except in times of
drought, when fresh water was brought from the mainland in barges.\textsuperscript{59} The occupants of private palaces relied on rainwater collected from the rooftop in Istrian-stone gutters, and funnelled through glass or terracotta drainpipes within the walls to the well in the courtyard (fig. 39). There it was filtered through sand, and stored in a cistern beneath the courtyard. Cisterns were clay-lined, usually about 3.5 metres deep, and filled with sand for filtration purposes.\textsuperscript{60} Water falling on to the paving of the courtyard itself was collected through a series of drains into a small terracotta underground gallery just below the surface, from which it seeped into the cistern below. Empty cisterns could be replenished with fresh water imported by boat. Until the mid-fifteenth century, all cisterns were located in the open air, either in public \textit{campi} or in private courtyards or even monastery cloisters. From the sixteenth century onwards it became popular to construct cisterns beneath the interior of the house. As late as the nineteenth century, there were still 6,782 functioning cisterns in the city.\textsuperscript{61}
The fine Istrian-stone or Verona-marble well heads, called *vere da pozzo*, are a notable component of the Venetian scene. A number of them are extremely ancient, to judge by their Byzantine-style carved decoration. It is typical of Venetian visual sensibilities that such a basic functional necessity should have become the excuse for decorative expression and the display of family coats of arms. In the Gothic period many were give the form of huge Corinthian capitals, reminiscent of the fragments that still litter antique cities such as Rome and Constantinople.

Sewage disposal was less of a problem in Venice than the water supply, for the ebb and flow of the tides removed the effluent with great efficacy. Even today the city relies on natural drainage. Unfortunately, however, in recent decades, pollution of the lagoon by agriculture, industry and domestic cleaning products has disturbed the natural decomposition of organic waste. The problem of ecological imbalance is exacerbated by insufficient dredging of the canals. Until the twentieth century the drains discharged their effluent at mid-tide level, so that the outlets were actually exposed at low tide, but now they are out of sight. Houses with no direct access to a canal were connected with covered drains leading to the nearest waterway. Only those houses that were furthest from the canals had to be content with cesspits. In this respect Venice had a great advantage over mainland cities – at least until the era of mains drainage. Human manure was shipped to the market gardens of the lagoon for use as night soil. Solid refuse, collected in boats, was carried to dumps on the mainland, or used to build up land for reclamation. In the mid-sixteenth century there were complaints that mud, rubble and other rubbish supposed to be deposited at Marghera were being dumped in the lagoon, because the boatmen did not take the trouble to complete the long journey.  

Finally we should mention the profusion of balconies on Venetian buildings, and the curious terraces, called *altane*, on many of the rooftops. Balconies at *piano-nobile* windows were not unknown in the grander town palaces in other parts of Italy, especially after they were introduced by Bramante in his famous House of Raphael in Rome in the early sixteenth century. Open *logge* under the huge overhanging eaves of Florentine palaces served a similar purpose (though in the hotter summers of Florence shade was preferred to sun). But in Venice, because of the shortage of space for gardens and the poor light inside the buildings in congested areas, balconies are far more numerous than elsewhere, especially where the windows offer expansive views of the city.

Early examples took the form of simple Istrian-stone ledges supported on stone brackets and provided with plain iron railings for safety. Frequently the balconies are not coeval with the houses, having been added or replaced at a later date. Very broadly, one can date Venetian balconies (though not the buildings behind) to within a hundred years.
or so by the form of the balustrade. The typical quattrocento baluster was a slender classical colonnette, while the stone handrails often had seated lions or small stone busts at the corners. In the sixteenth century Sansovino introduced a new type of baluster borrowed from Michelangelo in Florence, which became extremely popular (figs 102 and 107). This was broadest in the middle, with a cubic block at the centre. At the same period Sanmicheli also used balusters that were broader in the middle, but with a 'waist' at the centre (fig. 108). In the seventeenth century a more baroque type of baluster, broader at the bottom, was adopted, sometimes alternating with uprights broader at the top, as in Longhena's Ca' Pesaro (fig. 130). The eighteenth century's rococo taste favoured little curved balconies with wrought-iron railings (fig. 56). Naturally this generalized outline does not accommodate all possible forms of balustrade, for the Venetian decorative imagination ranged far and wide, as we can see in the marvellous balconies of the Palazzo Contarini-Fasan (traditionally known as the house of Desdemona) which are like petrified Burano lace (fig. 62).

The rooftop altane take the form of wooden platforms supported on brick piers and reached by a dormer window. A good example appears on the skyline of Carpaccio's *Miracle of the True Cross* (fig. 40).
Vittore Carpaccio, *Two Venetian Ladies*, c. 1495 (Museo Correr, Venice). Now known to be the lower part of the panel known as *Hunting in the Lagoon* in the Getty Museum in Los Angeles, this painting shows two noble ladies amusing themselves on a rooftop *altana* or balcony.
altana was used for drying washing, beating carpets and taking the sun. We must not forget that Venetian noble ladies were strictly chaperoned, and were only allowed out in the streets veiled and accompanied by their maids. Instead, they spent much of their time on the altana, bleaching their hair to the fashionable Titian-blonde colour. For this purpose they wore special straw hats without crowns, draping their long hair—anointed with a special preparation called acqua di gioventù—over the broad brims. Carpaccio’s enigmatic painting in the Museo Correr, long misleadingly known as The Courtesans, shows two noble ladies idling away their time on balcony or altana, with the help of a child, two dogs, a peacock and some other tame birds (fig. 41). It is now known that Carpaccio’s painting of Hunting in the Lagoon, now in the Getty Museum in Los Angeles, originally formed the upper part of this picture. Thus, from the confines of domesticity, the ladies could gaze on their menfolk enjoying the freedom of the natural world. In the corner of the Museo Correr picture one can see the absurdly high platform-soled shoes that restricted their movements yet further, for they could hardly walk unsupported. Coryate saw a lady fall on a stone bridge in her platform shoes, ‘but I did nothing pity her, because shee wore such frivolous and (as I may truely terme them) ridiculous instruments’. Although a number of examples have been drawn from later periods, it should be remembered that as early as the beginning of the fourteenth century the city of Venice had already acquired many of the characteristics outlined in this chapter. By that time, a range of building types had evolved to suit the particular needs of the city. These were to change only superficially for the rest of the duration of the Venetian Republic, which ended in 1797. Stylistic changes affected little more than the decorative language, both inside and out. The rest of the book will deal chiefly with these transformations, which were guided partly by changes in taste throughout Europe, partly by the personalities of the greatest architects who worked in the city, and partly by internal developments within Venetian society itself.
The life span of the Gothic style, which dominated Venetian architecture through the fourteenth and fifteenth centuries, coincided with the climax of the political and economic power of the Venetian Republic. This was a period of dramatic expansion in trade, which in turn provided the economic resources needed for territorial enlargement, industrial growth and population increase. The most rapid rise in prosperity took place in the first half of the fourteenth century. By the onset of the Black Death in 1348 Venice had a larger population than any other Italian city except Naples. As elsewhere in Europe, growth was checked for a time by the effects of the plague and the subsequent economic crisis. This was the first of a series of fluctuations in the fortunes of the Venetian state in the course of these two centuries.

Each phase of increase in trade brought the merchant fleet into competition with its rivals, particularly the Genoese, and fostered the desire for territorial conquest. Throughout the fourteenth century rivalry with Genoa was a major preoccupation, reaching its climax in the Fourth Genoese War of 1378–80. This war, in which the Genoese, with the help of the Paduans, actually captured the lagoon town of Chioggia, brought a very grave threat to the survival of the Venetian Republic. Eventually the Venetians managed to recapture Chioggia, but in the Peace of Turin of 1381 they had to make a number of concessions to the Genoese.

In the long term the War of Chioggia did not prove too damaging, for the period of peace that followed allowed Venice to recover her political and economic stability. By the beginning of the fifteenth century she was again powerful enough to undertake further expansion of her dominion, this time on the terraferma. Venice was still very much a seafaring nation, with colonies in the eastern Mediterranean, chiefly in Dalmatia and the Aegean, but very little hinterland on the Italian mainland. Before 1339, when Treviso and Conegliano fell to Venetian rule, she had not even controlled Mestre, the nearest town on the mainland. The main period of terraferma expansion began with the acquisition of Padua, Vicenza and Verona in the years 1404–6. Subsequently Venice took over Bergamo and Brescia, but these more distant conquests
brought her into conflict with the Milanese. Just as in the fourteenth century wars with Genoa had repeatedly strained the resources of the Republic, so the defence of the terraferma made heavy demands on the economy in the fifteenth century. Meanwhile, at sea, the struggle against the Ottoman empire prevented any reduction in the strength of the Venetian navy.

We should not, however, overestimate the strain caused by conflicts between Venice and her rivals. The constant need to finance military and naval efforts was not a remarkable feature of the Venetian Republic at this time. The political map of Italy was continually changing as the fortunes of each state fluctuated, and military expenditure was a normal outlay for a large part of the revenue of every country. Undoubtedly military defeats cause shocks and setbacks, but equally each strategic conquest made trade and shipping more secure, or alternatively increased the self-sufficiency of the state by yielding agricultural produce and natural resources.

It is against this background of a progressive rise in prosperity and political security, punctuated, but not halted, by the setbacks of war and plague, that we should view the architecture of the Gothic period in Venice. Most important, there was an enormous boom in the building trade to cope with the rising population. The whole of the central part of the city had been converted from a series of separate island communities into a densely built-up urban area, and land values were rising sharply. Many of the new buildings served relatively mundane purposes as shops and modest dwellings, but the very uneven distribution of wealth among the city’s residents meant that a small minority of the population was outstandingly rich and could therefore afford to erect magnificent houses. The tremendous disparity between the richest Venetians and the rest of the inhabitants is revealed by an assessment of property ownership carried out in 1379 during the War of Chioggia, in order to raise forced loans based on individual means. Only about one-eighth of the heads of households were rich enough to qualify for the census, owning property amounting to the value of about 300 ducats or more. This minimum figure was probably equivalent to about three times the annual income of a typical skilled craftsman. Of the 2,128 people assessed, 1,211 were nobles while 917 were not. Even among these families the range of wealth was enormous. Although the balance between nobles and commoners in the survey was fairly even, the financial supremacy of the patrician class is still evident. The fortune of the richest of them all, Federico Corner, amounted to about 150,000 ducats. In the richest categories twenty-five were nobles while only six were commoners. Virtually every noble family was wealthy enough to qualify for the survey, whereas the great majority of non-nobles were too poor to be assessed. The financial strain caused by the forced loans levied at this
time severely reduced the power of the nobility. In consequence, after the War of Chioggia the patrician class, officially sealed off by the closing, or serrata, of the Great Council in 1297, was enlarged by the admission of thirty new families to reinforce its political and economic domination. These were the last new families to be admitted to the patriciate before the mid-seventeenth century.

The concentration of wealth and power in the ranks of the nobility throughout the Gothic period is reflected in the nature of the building activity. The Republic itself, governed exclusively by the patrician class, had the resources to carry out the rebuilding of the Palazzo Ducale, while all the most conspicuous Gothic private palaces were built by members of the nobility. Since virtually every prosperous family wanted the prestige of a fine new house, palace building in this period was carried out on a huge scale, as we can see from the number of Gothic palaces shown in Jacopo de’ Barbari’s bird’s-eye view of Venice of 1500. The middle-income groups who were rich enough to own land in the city built their own more modest dwellings; and landowners also built artisans’ cottages to let to the poorer inhabitants. The wealthier non-nobles, of whom there were a significant number, financed the erection of the city’s scuole or guild-halls. Meanwhile the general overall prosperity of the population, though unevenly distributed, was reflected in the huge scale on which donations were made to the Church, allowing the building of many fine new churches, both monastic and parochial. And, just as their functions and patrons differed, so, stylistically, religious and secular Gothic architecture in Venice followed separate paths, leading in a similar direction but rarely converging.

**Gothic Ecclesiastical Architecture: The Mendicant Orders**

The development of the Gothic style in Venice received a powerful stimulus from mainland Italy as a result of the introduction of the mendicant orders in the thirteenth century. These new orders broke away from the traditions of older monastic communities such as the Benedictines and the Cistercians, who lived in isolated rural settings supporting themselves by their own agricultural enterprises. (Venice’s principal Benedictine monastery lay on the island of San Giorgio Maggiore.) Instead they established themselves in the cities, which were now growing rapidly after the disintegration of the feudal system. As the name ‘mendicant’ implies, the orders were financed exclusively by begging; but private donations from rich and poor alike, eager to gain salvation in the after-life through charitable works on earth, swelled their funds and allowed them to erect new churches all over Europe.
The great significance of the mendicant orders in the architectural history of Venice lies in the fact that, unlike most building patrons, they were not based in the city, but were administered by the superiors of their orders on an international scale. They brought to the city their own traditions of church building, which had already begun to evolve outside the specifically Venetian context, adapted to their particular religious needs. The mendicant orders aimed, above all, to alleviate the sufferings of the growing masses of the urban poor. The friars dressed simply and lived in austere conditions, so that they could identify as closely as possible with the poverty stricken and the downtrodden. Their days were still punctuated by regular services (which totally dominated life in the more reclusive, older orders), but they had more free time for work outside the cloisters. Thus their churches had to provide not only small secluded chapels for their own private services, but also spacious naves in which to welcome the public into the religious community.

Since the orders were dependent on charity, the mendicant churches were generally founded on pieces of land donated by private individuals. By the thirteenth century sites were not readily available in town centres, and throughout Europe one finds the new churches scattered around the peripheries of medieval cities, just as railway stations lie on the fringes of nineteenth-century conurbations. This pattern applied in Venice as elsewhere. A map marked with the mendicant-order churches would indicate that not one of them was built in the densely settled Rialto–Merceria–San Marco area. The two most powerful of the new orders were the Franciscans, called the Frati Minori or Lesser Friars, founded in 1210 by Saint Francis of Assisi, and the Dominicans, called the Preacher Friars, founded in 1216. Others included the Augustinians, the Servites and the Carmelites, all of whom established churches in Venice. As we shall see, these churches made a clean break with the local tradition of small, centralized parish churches such as San Giacomo di Rialto (figs 10 and 11).

The most imposing and one of the oldest surviving mendicant churches in Venice is the huge basilica of Santi Giovanni e Paolo, erected on the northern fringes of the city for the Dominicans or Preacher Friars (fig. 43). It is said that Saint Dominic himself visited Venice in 1217 and was granted by the Venetian Republic a small oratory, dedicated to San Daniele, which stood on the site of the Cappella del Rosario, adjoining the north transept of the present church. There he founded a small community of friars. The order soon outgrew the little oratory, however, and in 1234 a larger site was donated by Doge Jacopo Tiepolo, supposedly in response to a message in a dream. At this stage the land was still partly inundated, but evidently it was quickly drained, for the new church, dedicated to the Roman martyr-saints John and Paul, was begun in 1246 and was well advanced by 1258. Little is known of the appearance of
the original church, for as the needs and resources of the Dominican friars grew, it, too, soon proved inadequate. It is reasonable to postulate, however, that like other mendicant order churches erected in the Veneto in the mid-thirteenth century, notably San Francesco in Treviso and Santa Corona in Vicenza, it was probably in a simple, early Gothic style.

The present church was probably begun in 1333; a lost inscription formerly in the nave arch next to the left transept recorded that this section of the building was completed in 1368. The inscription is decidedly ambiguous, for it may refer to either the east or the west end of the church. Close examination of the structure by Herbert Dellwing suggested that the whole ground-plan was probably laid out at one time, but that after the lower portions of the walls had been erected the choir section was then brought to completion first. By the early fifteenth century the whole building was finished, except for interior furnishings such as the friars' choir. The church was finally consecrated in 1430. The dome is unlikely to have formed part of the original scheme, for the crossing piers are too slender and the cupola is not integrated with the rest of the structure. It was presumably added in the fifteenth century to emulate the heightened domes of the church of San Marco. The dome
already appears in a print of 1490, as well as in de’ Barbari’s map of 1500.

The ground-plan reveals a lucid, carefully proportioned design (fig. 44). The nave consists of five square bays, each one the same size as the domed crossing, the two transepts and the chancel; the side aisles are half as wide as the nave. The chancel has a polygonal apse, echoed on a smaller scale in the two flanking chapels on either side. Although one cannot possibly make claims for the existence of a Dominican master plan, similarities between the plan of Santi Giovanni e Paolo and that of the sister church in Florence, Santa Maria Novella, founded at about the same date, show that ideas were disseminated rapidly across Italy.9 In its essential features the Florentine church differs from Santi Giovanni e Paolo only in the two shorter bays that take the place of the fifth square bay of the nave, and in the absence of polygonal apses in the chancel and flanking chapels. The long, spacious nave with side aisles must have impressed the Venetians, for the longitudinally planned basilicas of Torcello and Murano seem to have had no immediate progeny in the city. According to Francesco Sansovino, even the cathedral of San Pietro di Castello was ‘in the Greek style’ before it was rebuilt in the early seventeenth century.10

In cities such as Florence, the mendicant-order churches were founded on the faubourg market-places, which formed spacious piazzas to set off the buildings. In Venice there were no such foils for the new churches. At Santi Giovanni e Paolo, founded on an island, the land round about must have been reclaimed little by little. The L-shaped campo in front is too small to prevent one from being amazed by the enormous size of the church, which seems quite out of scale with its surroundings. The campo was once even smaller, for the present extension along the south side was not opened up until the nineteenth century.11 Before this time, it was blocked off by the Scuola di San Vincenzo, a building visible in paintings by Canaletto.12 Behind it lay the friars’ cemetery and, beyond, the Scuola di Sant’Orsola (the original home of Carpaccio’s famous cycle of paintings of the Life of Saint Ursula now in the Accademia – see fig. 38).13 But the characteristic Venetian materials – warm red brick and crisp, white, Istrian-stone detailing – help the church to blend with its urban context.

The exterior of Santi Giovanni e Paolo is extremely simple, and clearly reflects the internal configuration (fig. 43). As in other great Gothic churches of the period in Italy, buttressing is provided merely by thickened brick piers placed at regular intervals along the outside walls. There are no flying buttresses to relieve the heavy contours of the solid hulk of masonry. The tall, narrow, two-light lancet windows point upward like arrows, enhancing the effect of height, yet hardly breaking the continuity of the massive brick walls.14 The cusped pattern in the brickwork
under the cornices is a characteristic Italian Gothic decorative motif, perhaps inspired by the defensive machicolations on fortified medieval buildings. It seems that the original scheme for the church comprised an articulated façade, but construction never progressed beyond the lowest tier, consisting of a row of blind Gothic arches. The deep recesses of the façade, probably intended for tombs, also form part of the Dominican building tradition. Similar niches are to be found not only on the walls of Santa Maria Novella but also, closer at hand, on the Dominican church of the Eremitani in Padua, as well as in the Franciscan church of San Lorenzo in Vicenza. Significantly, the tomb of the doge who donated the site, Jacopo Tiepolo († 1249), occupies one of the niches – it originally stood in front of the entrance of the earlier church. After a
generous bequest in 1458 work on the façade was renewed, but once again the project lapsed not long afterwards. The only outcome was the exquisitely carved central portal, with its classical columns supporting a heavy Gothic arch, executed in the workshop of Bartolomeo Bon.¹⁶

When one passes through this grand doorway into the church the effect is magical (fig. 45); but the magic is not the same as the spell cast by the interior of San Marco. This is not an Aladdin’s cave full of riches and intricacies. Here there are no flickering mosaics, deep shadows or dancing highlights. The majestic quality of the vast, silent space lies in its simplicity and stillness. We cannot wonder that the church became the city’s principal mausoleum. Its walls are graced with the finest series of tombs to be found in Venice, which in turn add to the dignity of the impression. In general the mendicant-order churches, with their more open sites and greater height, were better lit than the older parish churches, and Santi Giovanni e Paolo is no exception. A serene, even light enters through the clerestory windows and the lancets and roundels of the side aisles. The hefty stone piers that separate the nave from the side aisles are simple cylinders, for the Italian Gothic tradition did not readily assimilate the elaborate compound piers of northern Europe. As we have seen, the overall plan, with its rib-vaulted nave and side aisles, adheres closely to the mendicant order churches elsewhere in Italy. The only obvious concessions to Venetian building traditions are the choice of materials and the provision of extra structural support. Brick and Istrian stone are used alternately for the main vaults of the nave, producing a subtle, rhythmic pattern of colour. The diagonal ribs of the vaults and the upper pilasters of the nave are in red brick, while the shafts of the main columns are built up of Istrian-stone blocks. (Single monoliths on this scale would have been virtually unobtainable.) The wooden tie beams, which are needed to support the vaults on the unstable Venetian terrain, distinguish the church from its mainland counterparts. Here the cat’s-cradle effect of the tie beams serves to orchestrate the huge space, but it also interrupts the soaring height of the nave. Typical of Venetian visual sensibilities is the way in which these strictly functional tie beams are richly decorated as if to justify their existence. The division of the windows of the main eastern apse into two tiers, with a more solid band in the centre, also provides additional horizontal support. The flood of light silhouetting the Gothic traceries of these apse windows gives a dramatic climax to the architecture, and seems to emanate from a divine source. In a setting such as this, the poor and the oppressed, for whose sake the church was ostensibly built, would surely have felt a sense of spiritual repose.

The establishment of the Franciscan order in Venice followed similar lines to the introduction of the Dominicans. The traditional belief that Saint Francis himself visited Venice, and stayed on the island of San
Francesco del Deserto, gave an extra stimulus to the movement. After the saint's death in 1226 his followers set up a community on the little island.\textsuperscript{17} Two sites in Venice itself were given to the Frati Minori in the mid-thirteenth century. On one of these plots the friars founded the church of Santa Maria Gloriosa dei Frari, and on the other (a vineyard on the northern outskirts of the city) the church of San Francesco della Vigna. The two original churches must have been very modest, for both were soon replaced by larger structures. Around 1300 an architect called Marino da Pisa began the new church of San Francesco della Vigna. This church is known only from de’ Barbari’s view of Venice, for it was again rebuilt by Sansovino in the sixteenth century. Still less is known of the appearance of the first church of the Frari, begun in 1250, although it remained in use until the fifteenth century.\textsuperscript{18} It stood in front of the entrance façade of the present church, and was orientated in the opposite direction with its three choir chapels facing the rio. It probably followed in the tradition of smaller, single-naved mendicant-order churches already founded on the terraferma, such as the first church of San Nicolò in Treviso. The second, larger church on the site of the Frari was begun in 1330 (fig. 46).\textsuperscript{19} As at Santi Giovanni e Paolo, begun just three years later, building proceeded slowly. Here, too, the choir section and
transepts were executed first, together with the campanile, these parts being effectively completed by 1391. The high altar was finally consecrated in 1469, and the whole church in 1492. As in the case of Santi Giovanni e Paolo we do not know the identity of the designer, though again he may have been one of the friars of the order.

Just as Santi Giovanni e Paolo shows links with the Dominican church in Florence, so the plan of the Frari has affinities with that of its Florentine equivalent, the Franciscan church of Santa Croce. The two plans are broadly similar in layout, both churches having a row of smaller chapels on either side of the chancel. But even more remarkable is the degree to which the Frari resembles its most conspicuous Venetian counterpart, Santi Giovanni e Paolo, as well as Dominican prototypes on the mainland, for ideas spread quickly among the various mendicant orders. The two exteriors share many components – the plain brick masonry with simple buttressing piers, the two-lancet windows, the dainty Istrian-stone pinnacles crowning the façade and the cusped decoration under the cornice. The façade of the Frari, like the nave entirely constructed in the fifteenth century, is at once more complex and more unified than that of Santi Giovanni e Paolo. The swaying curves of the topmost screen walls elaborate the basic scheme, and the fine Gothic doorway harmonizes effortlessly with the whole.

Inside the resemblance between the Frari and Santi Giovanni e Paolo is again evident (figs 48 and 45). The two choirs with their polygonal apses and splendid two-tier Gothic windows were erected in the same years and are very close in style. The articulation of the nave of the Frari, where again we find hefty stone columns, rib vaults, wooden tie beams and clerestory lighting, resembles that of Santi Giovanni e Paolo with only minor variations (although no dome was added to emphasize the crossing). Yet the effect is subtly different, for the Frari seems less solemn and awe-inspiring. This is partly due to the survival of the friars’ choir in the final bay of the nave, which breaks up the huge space into more intimate compartments (fig. 47). Before the changes associated with the Counter Reformation in the sixteenth century it was normal to find the choir of a monastic or mendicant church in front of the chancel, but almost all have been removed to less obstructive positions. (That of Santi Giovanni e Paolo was destroyed in 1682.) The warmer character of the interior of the Frari must also be attributed to the effect of Titian’s radiant high altarpiece, the famous Assumption of the Virgin commissioned in 1516. The compelling presence of this pictorial vision – framed by the central arch of the choir which concentrates one’s attention on the painting and at the same time makes it seem more remote and intangible – draws the eye straight to the focal point of the architecture (fig. 48). Thus discouraged from looking casually around,
one is less aware of the daunting scale and spaciousness of the architecture as a whole.

Whereas the Frari and Santi Giovanni e Paolo seem to lack breathing space in their confined surroundings, the Augustinian church of Santo Stefano was endowed with a site on one of the largest campi in the city. This church, too, was founded in the thirteenth century, and completely rebuilt in the fourteenth or fifteenth century as the needs and resources of the monastery grew. Francesco Sansovino dates its construction to 1325, but there is no documentary evidence to confirm this date. Because of the liturgically 'correct' east–west orientation of the building it does not really benefit from its splendid site, for the campo offers a view not of the façade but of the south flank. This reveals a characteristically simple brick exterior, with stone used only sparingly.

Inside, however, the materials are more lavish (fig. 42). Here the columns of the nave are not hefty cylinders of Istrrian-stone blocks, but slender shafts of red and white marble, the colours arranged in an alternating rhythm. The spatial effect is enhanced by the imperceptible contraction of the plan towards the east, illusionistically enlarging the space. In the fifteenth century the presbytery was daringly extended eastwards over a vaulted bridge across a canal.

The walls of the nave still preserve their fifteenth-century painted decoration over the arches, in a design of flickering foliage not unlike the crockets on the roofline of San Marco. The diaper pattern of the

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brickwork above is reminiscent of the upper walls of the façades of the Palazzo Ducale. But the chief glory of Santo Stefano is the splendid ship’s-keel ceiling. Only one other example survives in Venice itself, in the church of San Giacomo dell’Orio (fig. 49). (Other examples can be seen at Santi Maria e Donato on Murano, at Santa Caterina on Mazzorbo and on the nearby mainland, for instance in the basilica of Aquileia and the churches of San Fermo and San Zeno in Verona.) The ceiling construction grandly shows off the shipbuilding expertise of the Venetian people, its woodwork lovingly decorated like the row of tie beams below.

The interior of Santo Stefano has undergone many changes since the original decoration was completed in the fifteenth century. These include the insertion of a clerestory of thermal windows to improve the lighting, similar to those added to Santi Giovanni e Paolo (although the latter was restored to its former state in 1922). As at Santi Giovanni e Paolo, the marble screen and the friars’ choir were removed from the nave in the Counter Reformation, although here parts of the rich Gothic choir stalls (dated 1488) were rearranged around the chancel after their demolition in 1613. None the less the overall effect remains striking. Even after Gothic architecture had passed out of fashion, Francesco Sansovino still ranked Santo Stefano among the half-dozen finest churches in the city.
Some Smaller Gothic Churches

By the end of the fourteenth century the Gothic style was to be used exclusively for all religious architecture, both monastic and parochial, but its absorption was gradual. The beautiful parish church of San Giacomo dell'Orio, rebuilt in 1225, displays both round and pointed arches (fig. 49). Here the characteristic centralized plan, the traditional form for parish churches, probably reusing older foundations, is subtly combined with a longitudinal basilica plan. Gradually, however, mendicant traditions began to permeate parish church design as well. A good example of the way in which the scheme of the great triple-naved friars' church could be adapted to suit the more modest needs of a small parish is the Gothic church of San Giovanni in Bragora, begun as late as 1475, replacing the earlier church on the site (fig. 50). Here the elements are much reduced in scale, the decoration is simpler, especially on the façade, while a roof of open wooden rafters is used instead of a costly vault. The result is a serviceable, less imposing version of the mendicant-order basilicas, a worthy successor to the Veneto-Byzantine centralized parish church.
Monasteries and friaries of the fifteenth century, able to raise funds on a wider scale than the parishes of Venice, enjoyed more generous budgets, allowing them to indulge in the taste for richer decoration that was also prevalent in domestic architecture of the time. This is evident in the case of the lovely church of the Madonna dell'Orto, which belonged to the religious order known as the Umiliati (fig. 51). The present church was begun around 1399. Here the façade incorporates larger window openings with ornate tracery and repeated verticals, while on the roofline statues of the Twelve Apostles shelter in little Gothic niches. The main portal, commissioned from Bartolomeo Bon in 1460, is crowned by an ogee arch with flamelike crocket decoration, similar to the fifteenth-century decorations on San Marco. The lunette over the door, its semicircular disc of precious porphyry ringed with diverging rays like a rising sun, and the columns on high bases on either side, show classical influences already beginning to take root in Venice. This early example is a foretaste of the Renaissance style which was finally to displace Gothic forms in Venetian architecture in the last decades of the fifteenth century.
Madonna dell'Orto, begun c.1399; portal by Bartolomeo Bon begun 1460
Gothic Secular Architecture

As Ruskin himself recognized, the Gothic style introduced into Venice by the mendicant orders from mainland Italy absorbed little from local Veneto-Byzantine architectural traditions, except for the use of local materials and building techniques. At the same time, just as in civil life Venice was eager to remain aloof from Church affairs, so the manner of secular building in the city remained quite distinct from the ecclesiastical tradition. As we have seen, Venetian parish churches of the fourteenth and fifteenth centuries readily adopted the architectural traditions of Gothic mendicant friaries, abandoning the Veneto-Byzantine convention of centralized churches. But in civil architecture, as the Gothic style became generally accepted as the normal ‘language’, it was blended with the legacy of Veneto-Byzantine structural and decorative traditions to form a completely distinctive, secular style. Even the oriental flavour was retained, for the travels of the patrician or merchant class in the eastern Mediterranean and parts of Asia must have continued to make a deep impression on their artistic sensibilities.

The discrepancy between the architectural language of secular and religious building in the Gothic period shows itself most clearly in the fact that the inflected or ogee arch, which occurs in many different forms in almost every Venetian Gothic palace, and seems to be of Moorish or Eastern inspiration, is relatively uncommon in ecclesiastical buildings. Meanwhile the simple, two-centred Gothic arch, widely used in the churches, generally appears in domestic architecture only in the most solid elements, such as the main portals and the arches supporting external staircases (fig. 39).

Because of local anxieties about the safety of vaulted structures on the unstable Venetian terrain, secular buildings in the city retained their traditional flat, wooden-beamed ceilings throughout the Gothic period. Thus the structural raison d'être of the Gothic style – to allow the erection of higher and higher vaults, with more flexibility in ground-plan – was completely irrelevant in Venice. This must have worried Ruskin, for whom Venetian Gothic was the finest expression of the style, for in his discussion of ‘The Nature of Gothic’ he affirmed that buildings ‘are not Gothic unless the pointed arch be the principal form adopted either in the stone vaulting or timbers of the roof proper’.

According to such a definition, virtually none of the Gothic palaces of Venice would qualify as ‘true Gothic’, although Ruskin would never have been so rigid (or so consistent) as to insist on this point. We must admit, however, that his elaborate structural justification of the Gothic style has little validity in Venice, where Gothic forms in civil architecture are primarily decorative. The Venetian Gothic surely appealed more to Ruskin’s visual and moral sensibilities than to his reason. He loved passionately
every delicate stone tracery, every inch of moulding and every crumbling brick of the Gothic palaces of Venice. And he reinforced this sentiment with a touching faith that the craftsmen had gained as much happiness from creating such artefacts as he did from seeing and drawing them. Uncomprehending of his wife Effie’s taste for holding tea parties and dancing with Austrian officers, he spent his days in Venice sketching Gothic capitals for hours on end, reading chronicles of Venetian history and writing chapters of *The Stones of Venice* in his own inimitable prose.\(^{30}\) It is to Ruskin’s sensitive writings, and his delicate wash drawings skilfully engraved to serve as illustrations, that we owe the nineteenth-century ‘rediscovery’ of Venetian Gothic architecture, undervalued since the onset of the Renaissance.

**The Palazzo Ducale**

Just as the church of San Marco is the finest manifestation of Byzantine architecture in Venice, so the Palazzo Ducale is the supreme expression of the Gothic style in the city, at least in its external aspect (fig. 52). For Ruskin it was ‘the central building of the world’, on account of its unique blend of Roman, Lombard and Arab elements.\(^{31}\) As he recognized, the Palazzo Ducale lies at the focal point where, through centuries of trade, war, crusades, piracy, diplomatic exchanges and voyages of exploration, three of the world’s greatest architectural styles – the classical, the Islamic and the Gothic – met and were combined in a very special way. Most of the classical influences were to be felt at a later period, when the courtyard began to assume its present form in the early Renaissance; but the Gothic exterior, as we shall see, is not simply ‘standard’ Italian Gothic built of local materials, but is infused with a Moorish predilection for shimmering inlaid surfaces and delicately carved traceries.\(^{32}\)

Its building history is a long, complicated one, still only partly understood. Since Venice kept her republican status longer than any other Italian city-state, the Palazzo Ducale served the role of ducal residence and political and legal administrative centre continuously for almost a thousand years. The first palace on the site must have been built when Doge Angelo Partecipazio transferred his headquarters to Rivo Alto, as Venice was then known, after his repulse from Malamocco in AD 810. From this time until the seventeenth century, extensions and embellishments, successive rebuilding and modernization campaigns, and repairs after fires gradually transformed the original nucleus into the Palazzo Ducale as it stands today.

No visible trace survives of the ninth-century building. Considerable enlargements, including the addition of a Palazzo Comunale, were begun by the immensely wealthy Doge Sebastiano Ziani (1172–8).\(^{33}\) Again, we
Palazzo Ducale, south wing begun 1341; continuation along the Piazzetta façade begun 1424

have no visual record of Ziani’s palace, but in style it presumably resembled the other buildings probably begun under his son, Doge Pietro Ziani (1205–29), around the whole of Piazza San Marco. Their two-tier Veneto–Byzantine porticoes are visible in Gentile Bellini’s Procession in Piazza San Marco and in Jacopo de’ Barbari’s woodcut of 1500 (figs 17 and 83). Possibly, like some early Veneto–Byzantine private palaces, the Doge’s Palace had corner towers: the so-called torresella (small tower) now incorporated into the treasury of San Marco may have been one of these. In this case the towers presumably played a defensive role as well as a visual one: one of the corner blocks on the lagoon side is known to have served as an armoury. The palace was built around an internal courtyard, like other communal palaces of the period (fig. 53). The Palazzo Comunale itself occupied the wing along the Molo or waterfront; the Palace of Justice faced the Piazzetta; and the doge inhabited the portion overlooking the small canal on the opposite side.34

The exterior of the Palazzo Ducale owes the essentials of its present appearance to a radical rebuilding programme in the mid-fourteenth century. Despite the famous serrata of the Great Council (Maggior Consiglio) in 1297, when the ranks of the nobility, then comprising about 200 families, were effectively closed to outsiders, the number of male nobles, all of whom were entitled to attend the Great Council, was growing rapidly by natural multiplication. The room provided for their weekly sittings was becoming quite inadequate and in 1340 it was finally
resolved to build a new assembly hall over the office of the *signori di notte* (the night police) on the lagoon side of the palace. Although some older structures were incorporated into the new wing, the renewal of the whole of the Molo façade seems to have been undertaken at this time.  

The penultimate capital at the Piazzetta end is dated 1344. Building came to a halt after the Black Death in 1348, but a strong sense of Venetian civic pride prompted the rapid resumption of the work. The huge Sala del Maggior Consiglio must have been substantially completed by 1365, when Guariento was commissioned to paint his fresco of the *Coronation of the Virgin* (damaged in the fire of 1577 and known only from fragments).

At this time the Molo elevation continued around the corner along the Piazzetta façade only as far as the seventh great column, marked by the circular relief of *Justice* on the upper wall. The vast size of the Sala del Maggior Consiglio is evident even from the outside, for it occupies all but two of the large windows that pierce the upper part of the Molo façade. The central balcony on this side, with its florid Gothic pinnacles and its sculptured figures sheltering in ornate niches, was inserted in
by Pierpaolo and Jacopo dalle Masegne. The continuation along the rest of the Piazzetta façade was not begun until 1424, under Doge Francesco Foscari, when it was finally decided to demolish this section of Ziani’s palace; but the new wing copied faithfully the fourteenth-century portions of the façade.

The identity of the architect (or architects) who invented this marvelous elevation still eludes us, although various names appearing in the documents have been put forward. Most critics believe that such a unified and perfectly balanced design must have been the work of a single creative personality — as anonymous as the architects of most of the other Gothic masterpieces of Europe. It is difficult to view such a familiar monument as the Palazzo Ducale objectively, for the eye is adjusted to the proportions as they stand through years of acquaintance. Any change in the appearance would at once look wrong or inharmonious. It is like a great piece of music, every part contributing to the unified whole, in which familiarity can easily hinder understanding. One secret of the success of the design is the way in which the large expanse of solid wall at the top of the building is made to seem light and insubstantial by the shimmering lozenge pattern in the tiles of red and white marble, while the lower arcade, where void in fact predominates over solid, appears robust and strong with its row of stocky columns and plain Gothic arches. There is no sense of top-heaviness, and the balance of light and shade is perfectly controlled.

The origins of this superb composition may be traced back to older structures on the site. Although some of the rooms of Ziani’s twelfth-century palace survive in the core of the Molo wing, the double portico that hides them from view was completely remade to support the new Sala. But the rhythm of Ziani’s arcades, if we assume them to have resembled those surrounding the Piazza depicted in Gentile Bellini’s painting, was not forgotten (figs 17 and 52). The up-dated, Gothic structure preserved the placing of two narrow bays over each of the lower archways. The arrangement violates many of the classical canons that the Renaissance was to reinstate. For example, the stouter columns of the lower portico are shorter than the more slender columns of the piano-nobile colonnade. The common medieval practice of placing a column over the centre of an arch would also have offended strict Vitruvians, but such slim vertical supports had to be more closely spaced than the fatter columns in order to support the weight of the overlying structure. The lower portico with its stone cross-vaults concentrates the load of the building on the hefty shafts of the great columns, while the light, flat, wooden beamed ceiling of the piano-nobile balcony spreads the weight more evenly across the less substantial traceries. Ziani’s system was given new life by the flowing lines of the Gothic articulation, with its superbly carved details. On the piano-nobile balcony each quatrefoil roundel
grows effortlessly from the contours of the ogee arches of the arcade, for
the inflected crowns of these arches share the same centres and diame-
ters as the roundels.

The palace exterior also owes much to the layout of the rooms inside. We
cannot be certain how the huge Sala del Maggior Consiglio was
roofed before the great fire of 1577. Although other great civic halls of
the Veneto region, such as the Palazzo della Ragione in Padua and the
Basilica in Vicenza, had wooden vaults, the Sala del Maggior Consiglio
may have had a trussed timber roof not unlike the present structure. The
fact that the Great Council chamber occupies most of the upper part
of the Molo wing had a profound influence on the external appearance,
for it implied a huge expanse of wall across the top of the façade. A
vault would have exerted considerable outward force on this slim, unbut-
tressed south wall. In both Padua and Vicenza the wall mass was hidden
behind screening arcades, which provided additional buttressing for the
structure, but this severely restricted the amount of light entering the
great halls. As Venetians knew well, the largest rooms (like the central
porteghi of their palaces) needed the best possible illumination. Good
natural light was obviously an essential amenity, to reduce the fire risk
resulting from the use of lamps and candles (fig. 54). (Meetings of the
Maggior Consiglio were held in daylight – or, more exactly, every Sunday
afternoon.) The insertion of Masegne’s central window in 1404 provided
extra lighting inside the Sala del Maggior Consiglio; but its more
important function was surely to give a decisive central emphasis to the
otherwise uniform rhythm of the Molo façade, and to add a third dimen-
sion to the planar wall surface. The two right-hand windows are set at
a lower level than the others since there are two storeys of smaller rooms
in this portion. These are the only windows to have preserved their
original Gothic traceries after the fire of 1577.

The imprint of Islamic culture on the façade of the Palazzo Ducale is
unmistakable, though blended with western, Gothic elements (fig. 52). The
traceries are as delicately carved as Moorish screen walls, and the
whimsical roofline crenellations seem more appropriate to an Egyptian
mosque than to an Italian communal palace. The inlaid tiles of the upper
wall are reminiscent of the characteristic Persian decorative tradition,
brought to Turkey by the Seljuks in the eleventh century and certainly
known to Venetians. The key to the magic of the lozenge pattern on the
Palazzo Ducale seems to lie in the very centre of each diamond where
the regular design is abandoned and the tiles are arranged at random.
By this device the apparently regular geometrical pattern is made to
vibrate imperceptibly across the vast expanse of wall.

The Palazzo Ducale was built at a time when republican governments
of one kind or another were in power in most of the states of Italy. It
was just one of a whole series of civic palaces erected in major cities
throughout the Italian peninsula in the thirteenth and fourteenth centuries. Naturally every communal palace reflected local architectural traditions, but the individuality of the Palazzo Ducale is particularly striking. Much of its effect derives from the magnificent site. The view from the lagoon is backed by the great domes of San Marco, which contrast with the simple boxlike profile of the palace.

The white Istrian stone and red Verona marble of the waterfront catch the midday sunshine, the light intensified by reflection from the huge expanse of water, so that the arcades seem as dark as night. Not only the materials and the site, but also the articulation of the building betray the Venetian setting. It is almost as if the early type of lagoon house, raised on its wooden stilts, had been petrified like a coral on the sea-shore.

The very openness of the structure sets the Palazzo Ducale apart from other Italian communal palaces. There is no suggestion of impregnability in the architecture. The public could wander freely in the lower portico and into the courtyard, and even the rooftop crenellations were decorative rather than defensive. The contrast with Tuscan examples, such as the Palazzo Vecchio built between 1299 and 1314 for the priori of Florence, is particularly revealing. The Florentine palace is effectively a fortress, with its heavy rustication, projecting machicollations and tall lookout tower. Even the Palazzo Pubblico of
Siena, finished by about 1344, has a castle-like air, though the stone is smoother and the ground-floor windows larger and more accessible. It is hard to imagine that by the fourteenth century the Venetian Palazzo Ducale had need of fortification. Whereas in other Italian cities the republics were precarious institutions, soon to be replaced by more oligarchic forms of government, in Venice the system was by now so secure that it was to last for a further four centuries. And the Venetian lagoon as a whole was so well protected that invasions from hostile powers were also unlikely. The Palazzo Ducale is a bold symbol of the prodigious rise in prosperity and political power of Venice in the fourteenth and fifteenth centuries.

The Interior Planning of Venetian Gothic Palaces

The characteristic layout of the Venetian palace, developed by the end of the thirteenth century, provided the starting point for Gothic palace design in the city. Most of the changes in domestic architecture during the fourteenth and fifteenth centuries were stylistic and decorative, rather than structural. The arrangement inherited from the early Veneto-Byzantine merchant house, or casa fondaco, proved so well adapted to the particular social and physical needs of the Venetian patriciate that few modifications were needed. But the very fact that building took place on such a huge scale during this period meant that changes were required to adapt the basic scheme to the denser urban network and to the great variety of shapes, sizes and locations of the new sites.

The chief disadvantage of the blocklike plan of the surviving Veneto-Byzantine palaces – such as Ca’ Loredan and Ca’ da Mosto – was that it needed a reasonably open site to admit light to all parts of the building (fig. 22). In addition, space was needed at the back for the cistern court. More adaptable to continuous urbanization was the L-type plan, with a courtyard at one side or to the rear of the palace, which had already appeared in some early palaces. Quarters where land was scarce and costly could be built up of houses of this type, arranged side-by-side or back-to-back, facing in alternate directions. Ideally such developments had a street along one side and a canal on the other, so that each dwelling could have both land and water entrances. In such a system there was less need for narrow alleys between the houses to admit light and give pedestrian access.

The L-type of plan was well suited to the needs of the smaller palace, where the site was too restricted to allow for complete suites of apartments on either side of a great central hall. An alternative in the more
modest palaces was the asymmetrical interior distribution of rooms, with the great hall stretching back from the façade along one side of the palace, and smaller rooms leading off on the other. Evidence of such asymmetrical planning can be seen in palace façades, where the great window arcades lighting the main saloni are placed at one side rather than in the centre, to form a bipartite instead of a tripartite composition (fig. 69). The façade of the Ca’ d’Oro suggests this arrangement, although in reality behind the bipartite front section lies a conventional tripartite plan. (fig. 59).

Meanwhile the grander palaces still retained the tripartite façade distribution, inherited from the Byzantine era, which reflected the central placing of the great hall or portego on each main living floor. By the fifteenth century it became common to insert the courtyard into the centre of one side of the ground-plan, rather than at the rear of the site. In this way more light could be admitted to the inner parts of the palace, while both land and water façades could be symmetrically arranged. This c-type of plan occurs in Ca’ Foscari and the two adjoining Giustiniani palaces, all three of which had large enough sites to allow for additional larger courtyards at the rear (fig. 61). These three palaces also reveal another fifteenth-century tendency, namely the widening of the central hall at one end. This enabled its windows to be placed in the centre of the façade even when the hall itself was not centrally located, thus allowing a more flexible interior distribution of the rooms.

Naturally, such elaborate plans are not found in more modest, working-class housing projects, where the dwellings lacked the space for private courtyards and huge inner halls. In such developments, in the Gothic period as in earlier and later centuries, houses were arranged either around a communal courtyard containing a well and an external staircase, or along either side of a street. Houses of the latter type, examples of which can be seen in the Calle del Paradiso, had small interior staircases leading to the main living rooms upstairs, above the ground-floor workshops and kitchens (fig. 34).42

Throughout the Gothic period in Venice external staircases remained a standard feature of every palace of any significance. Conceived originally as a means of saving valuable space inside the buildings, they gradually took on the additional role of decorative show-pieces. The standard means of support for a Gothic external staircase was a series of simple pointed arches, the lowest placed on or near the ground, the others raised on progressively higher piers. The stone balustrades were formed of slender colonnettes with stone lions’ heads or busts placed at intervals along the handrails. One of the most beautiful surviving examples is the staircase in the courtyard of the Palazzo Centani, later the home of the famous eighteenth-century Venetian playwright Carlo Goldoni (fig. 39).
Stylistic Transformations

The major developments in Venetian domestic architecture in the Gothic period occurred not in the interior planning but in the style and character of the façades, which were the principal vehicles for the expression of the wealth, status and taste of their owners. As in the case of the early Veneto-Byzantine merchant palaces, our understanding of the evolution of Venetian Gothic secular architecture is severely limited by the lack of documentation. Not only are we usually ignorant of the identity of the designer – a problem that besets all studies of medieval architecture – but rarely, until further researches are carried out, do we have any reliable indication of the dating of the various buildings. For the most part only the later and most prominent palaces can be even tentatively dated from archival evidence, and attempts at dating on a stylistic basis alone are far from reliable.

Ruskin’s classification of what he called the ‘orders’ of Venetian Gothic arches, which attempted to elucidate the transition from the Veneto-Byzantine to the Gothic idiom, also provides us with a scheme for the development of the mature Gothic style (fig. 55). According to the Ruskinian system, the first true Gothic arch, inflected on both the extrados and the intrados, forms the third order. (The first and second orders have been described in Chapter 2.) The fourth order is an ogival, cusped arch, while the fifth stage consists of the cusped arch contained within an outer ogee arch. Ruskin added a final sixth order, similar to the fifth but with a decorative finial over the point of the arch. The scheme itself is neat and provides a useful terminology, but as we have seen the actual evolution is not so consistent as the classification would suggest. Ruskin himself admitted that the orders do not follow each other in a clear, systematic sequence, but overlap one another for long periods. The fourth and fifth are the most typical forms of what Ruskin called the mature Venetian Gothic, both lasting from the thirteenth to the fifteenth centuries and often coexisting in the same building.43

Despite our ignorance of the chronology and authorship of most Venetian Gothic palaces, some general characteristics and evolutionary patterns can be detected from a study of individual buildings. Of necessity, only a tiny fraction of the thousands of palaces erected in the city during the Gothic period can be discussed here. And it is tempting – even natural – to select the most conspicuous and interesting examples, which are not usually typical of the majority of dwellings erected in the period, although they set the trends followed by other less adventurous builders.
The First Gothic Palaces

As we have seen, the first palaces to exhibit true Gothic forms – that is to say arches of Ruskin’s third stage, pointed in both the extrados and the intrados – are still clearly transitional in style. An example is the Palazzo Priuli-Bon at San Stae which preserves the tall stilted arches of the Veneto-Byzantine period (fig. 56). This palace may date from as early as the mid-thirteenth century, although the divergence in both style and alignment between the water storey and the piano nobile suggests two main phases of building at the outset, to say nothing of subsequent
alterations. Here, as in the Veneto-Byzantine Ca’ Donà (fig. 24), we find an early example of the use of a stone or marble framing panel to enclose and identify the main piano-nobile window. This convention, possibly derived from the Islamic world, was to become one of the most typical and attractive trade marks of Venetian Gothic palaces. Outlined by a dentilled moulding like a serrated postage stamp, the panelled area provides a solid backing from which the windows have been, as it were, cut out, in this case piercing the frame with their tall inflected points.

Gothic Palaces in the Fourteenth Century

Probably by the fourteenth century the heightened, stilted arches had already been largely superseded by a more usual type of Gothic ogee arch, seen, for example, in the façade windows of the Palazzo Zorzi at San Severo, and at the later palace of the same family at the Ponte de’ Greci, which are lower in profile than those of the Palazzo Priuli-Bon and rest securely within the bounds of their framing panels (fig. 57a and b).

All palace building in the fourteenth century was, of course, overshadowed by work on the Palazzo Ducale. The huge leap of imagina-
57a  Palazzo Zorzi, Ponte de' Greci, window detail, fifteenth century

57b  Detail of fig. 56
tion that the new palace represented brought Gothic secular architecture in Venice to sudden maturity. In theory the two largest of the new mendicant churches, the Frari and Santi Giovanni e Paolo, begun only a few years earlier, offered a comparable range of Gothic forms to mid-fourteenth-century builders. These included windows of Ruskin’s fifth stage, that is, the trefoil arch within a plain outer arch, and quatrefoil traceries set in roundels or diamonds. But in practice domestic architecture ignored their possibilities. The elongated single or double lancet windows were ill-adapted to the Venetian dwelling house, for they were too tall and narrow to admit enough light, and even their decorative motifs passed unnoticed. Instead it was the flowing rhythmic patterns of the Palazzo Ducale that provided the dominating inspiration. The repeatable bay system, which could be extended to almost any length, made the arcade motif of the Palazzo Ducale a particularly adaptable theme for palace façades, and its impact – at first long delayed – was to last until the Gothic style finally died out at the end of the fifteenth century.

By the end of the fourteenth century Venetian palace building had still absorbed little from the new Palazzo Ducale. A typical example is the Palazzo Priuli at San Severo, near the somewhat older Palazzo Zorzi (fig. 58). This palace reveals a wide range of styles and has obviously been subjected to piecemeal alterations at various times, but the main part of the structure seems to date from the late fourteenth century. This is also implied by the fact that one of the corner windows, clearly later in style than most of the palace, was chosen by Marino Contarini in the years 1431-4 as the model for three of the windows in the Ca’ d’Oro. On the main rio façade of the Palazzo Priuli windows of Ruskin’s third, fourth and fifth stages coexist, with the third-order windows on the second-floor piano nobile above those of the fourth and fifth orders on the first floor. Yet, despite a certain lack of order and symmetry, there is no sense of stylistic discordance. The building displays a number of innovations, in particular the six-light window of the main hall of the piano nobile where the two end windows are framed by separate fascias, like the side panels of a triptych, and the daring corner windows, which undermine the apparent solidity of the ends of the façade. Only these corner windows, especially the later one over the Rio dell’Osmarin which so much impressed Marino Contarini, show any obvious borrowing from the Palazzo Ducale. Their slim colonnettes carved like twisted cables recall the spirally fluted columns on the corners of the great new palace. In the later window the trefoiled roundels resting between the inflected points of the fifth order arches, and appearing to grow out of them, are derived from the piano-nobile arcade of the Palazzo Ducale. The pendant arches, however, were a bold new departure. This palace was once decorated with paintings by Palma Vecchio, whose patron, Francesco Priuli, gave him lodgings in the palace.
Fifteenth-century Gothic Palaces

Bearing in mind that palaces such as the Palazzo Priuli were considered noteworthy at the beginning of the fifteenth century, we begin to realize how totally remarkable the Ca’ d’Oro must have seemed to contemporary Venetians (fig. 59). Indeed, we know from the very full accounts of the building work, which have survived for the years 1421–37, that its owner, Marino Contarini, certainly intended his new palace to make the boldest possible impression. This extraordinary palace cannot be seen as typical of Venetian patrician palaces of the period, except in the general disposition of the rooms. But it is important as a pointer of the taste of the time, which in Venice was beginning to move towards a more and more decorative, florid Gothic style. The fact that Contarini sought to make an impact by the sheer abundance and lavishness of the decoration, at the expense of harmony between the individual parts, shows that by this time ostentation alone was enough to impress.
Marino Contarini was a member of one of the oldest and most distinguished patrician families in the city. He bought the site of the Ca’ d’Oro from the Zen family in 1412. His first wife, Soradamor Zen, died only five years later, and he probably intended his magnificent new palace, begun in 1421, to serve as a monument to her memory as well as a demonstration of his own wealth and status.48 This is suggested by the way in which decorative fragments from the Veneto-Byzantine Palazzo Zen, which was demolished to make way for the new palace, were faithfully preserved and incorporated into the façade of the Ca’ d’Oro, in spite of their antiquated style.

The survival of detailed documentation of the construction of the palace gives valuable insight into building procedures at the time, as well as into the particular complexities of the Ca’ d’Oro’s own history. According to the normal Venetian practice, Contarini himself issued the contracts for individual tasks, and also ordered and supplied most of the materials. As far as one can tell, there was no single unifying design, other than Contarini’s own conception of how he wished his magnificent show-piece to turn out.49 Two main stonemasons’ workshops collaborated on the palace, those of the Milanese sculptor Matteo Raverti and the Venetian stonemason Giovanni Bon. Some parts of the construction were carried out by the two workshops jointly. In other cases, one or other group was responsible for a whole section of the building. The six-light window on the piano nobile can for the most part be assigned to Raverti, as well as the external staircase in the courtyard and the portal of the street entrance.30 Both of these were tragically demolished in the mid-nineteenth century, when the palace belonged to the famous ballerina, Mademoiselle Taglioni. Bon’s workshop was apparently responsible for the four-light window inside the waterfront portico, the single windows with balconies on the façade, and the cornice and crowning pinnacles.51

One of the most remarkable revelations of the documents is the account given of the painted decoration on the façade, entrusted to a French painter called Zuan di Franza.52 Here the Venetian taste for polychrome decoration was carried to almost vulgar extremes. The balls of the parapet, the finials of the window traceries, the foliage and lions on the corner capitals, and the mouldings surrounding the circular bosses of coloured marble were all gilded with real gold leaf, while the blue and gold coats of arms on the capitals and the great escutcheon were not only gilded but also painted with two coats of the finest ultramarine. The notion of using such costly materials in the humid, saline atmosphere of Venice was a preposterously extravagant gesture that cannot have failed to make an impact, as long as the decoration survived. The name Ca’ d’Oro literally means ‘house of gold’. Meanwhile much of the Istrian stone was touched up with white lead and oil to give the effect of veined
marble, and the red Verona marble was oiled and varnished to bring out the colour.

Ruskin, writing before the discovery of the accounts, was unaware that the palace had once been so richly painted, but he was struck by its magnificence and much distressed by Mademoiselle Taglioni’s barbaric alterations:

I saw the beautiful slabs of red marble, which formed the bases of its balconies, and were carved into noble spiral mouldings of strange sections, half a foot deep, dashed to pieces when I was last in Venice. Its glorious interior staircase, by far the most interesting Gothic monument of the kind in Venice, had been carried away, piece by piece, and sold for waste marble, two years before.  

We should be grateful for the attempts of a subsequent owner, Baron Franchetti, at the beginning of the twentieth century, to restore the palace to its former condition, building a new external staircase, buying back the well-head from the courtyard, sold to a dealer in Paris, and replacing the cusped moulding removed from beneath the cornice. There is, however, no evidence that his other embellishments, such as the polychrome marble wall-facing in the androne, replaced earlier decorations of this kind.

Despite the ravages of time the Ca’ d’Oro still makes a striking impression, chiefly through the intricacies of its traceries and carvings (fig. 59). Here the full impact of the Palazzo Ducale is at last evident, especially in the six-light window of the piano nobile. (We should not forget that the Piazzetta extension of the Palazzo Ducale was under construction in the same years.) It is nevertheless possible to detect the foreign hand of Raverti, who brought from Lombardy the tradition of elaborate stonemasonry so marked in the great cathedral of Milan, begun in 1386. There the importation of French and German craftsmen had helped to foster a taste for Northern complexity in the sculptural decorations.  

Indeed, this is reflected by the way in which Raverti’s attention to detail conceals the bold, flowing rhythms that are so emphatic in the piano-nobile arcade of the Palazzo Ducale. In its present state, the Ca’ d’Oro shares with the Doge’s Palace the open loggia of the piano nobile, but the evidence of earlier views shows that this arcade was originally glazed.

What the Ca’ d’Oro gained in fine detail it lost through the overall incoherence of the façade. The nineteenth-century scholar Cicognara assumed that the palace was originally intended to be completely symmetrical, with an additional wing on the left to balance the right-hand section, ignoring the fact that the interior of the palace was already on a tripartite plan.  

Even so, the façade is very loosely organized. The three heightened pinnacles in the middle of the roofline coincide neither
with the centre of the façade, marked by the single windows flanking the loggias, nor with the vertical strip of Byzantine carving into which the great coat of arms was inserted. Similarly, the dentilled fascias behind the windows are curiously variable in height. Matteo Raverti must have been aware of the search for geometrical harmony that dominated the building of Milan cathedral, attempting to organize the intricate design into a unified whole; but in the Ca’ d’Oro Contarini’s concern for elaborate detail obviously precluded such preoccupations. The magic of the Ca’ d’Oro lay instead in the way in which the ever-changing atmosphere of Venice and the dancing reflections from the water played on its highly coloured and richly articulated surface and intensified its deep shadows.

The most conspicuous palace erected in Venice in the middle years of the fifteenth century was that of Doge Francesco Foscari, which Ruskin called ‘the noblest example in Venice of the fifteenth-century Gothic’ (fig. 60). This palace makes its impact in a very different way from the Ca’ d’Oro. The property had already had a series of distinguished owners. The previous building on the site was a crenellated Byzantine palace known as the ‘House with the Two Towers’, which was bought by the Republic in 1429 and presented first to Gianfrancesco Gonzaga, marquis of Mantua, and then, ten years later, to Count Francesco Sforza. After the latter seized power in Milan in 1450 the State reappropriated the
The two Giustiniani palaces and Ca’ Foscari, all begun c.1450

Ca’ Foscari (on right) and Palazzi Giustiniani, second piano nobile of each (after P. Maretto, L’edilizia gotica veneziana, Rome, 1961, p. 105)
palace and sold it by auction to the doge of the time, Francesco Foscari. Foscari immediately set about rebuilding the palace in a manner befitting his station. The Venetian diarist Girolamo Priuli reports how the doge moved the site of the new palace forward on to the bank of the Grand Canal, placing the courtyard where the old building had stood. The huge new palace, which according to Francesco Sansovino contained more rooms than any other in the city, can hardly have been finished when Foscari was disgraced in 1457 and retired to his new home to end his days. He had been doge for 34 years, and had been instrumental in consolidating and extending Venetian domination on the terraferma. In politics he showed the same bold ambition that he revealed in the building of his palace. When Venetian expansion into Lombardy was finally halted by the Milanese, however, the patriciate began to resent the tax burden imposed by his warfaring policies. The misdemeanours of his son aroused further disapproval, and he was finally voted out by the Senate and deposed.

The two fine palaces of the Giustiniani family, which occupy the adjoining site on the Grand Canal, were rebuilt in the same years, construction work having begun there shortly before 1451 (fig. 60). The Giustinianis, too, were among the oldest and most distinguished families of the Venetian patriciate. They had only narrowly avoided extinction during the Crusades, when the pope gave permission for the one surviving male member, a Benedictine monk, to marry to save his line. Having fathered nine sons and three daughters he then returned to his monastery, while his wife became a nun.

The three palaces, commanding a great sweeping curve in the Grand Canal, form a magnificent ensemble. Foscari's palace dominates the group through its greater height and the prominent display of the Foscari arms over the second-floor piano nobile, while the two Giustinianis palaces form a unified pair, being arranged symmetrically on either side of their central axis with its huge watergate. The three palaces harmonize with each other through their close stylistic affinity. In all three the piano nobile is on the second floor, with the central arcades closely modelled on the façade loggia of the Palazzo Ducale. It is interesting that a whole century had elapsed before really effective use was made of this motif in the design of Venetian patrician palaces. Here, in contrast to the Ca' d'Oro, the bold rhythm of the prototype is not lost through over-articulation. It would, however, be misleading to consider these palaces as small-scale imitations of the Palazzo Ducale. All three are firmly rooted in the traditions of Venetian domestic architecture, with their great central window arcades lighting the huge halls or porteghi behind, flanked by side wings of smaller rooms lit by single windows (fig. 61). The first-floor arcades display windows of Ruskin's sixth order, not found before the fifteenth century, with their decorative finials crowning
the cusped arches within their plain ogee arches. The half quatrefoils, used at the ends of the Palazzo Ducale façades, here exhibit new decorative possibilities in the traceries of the single windows. The Giustiniani palaces take over from the Ca' d'Oro the unusual motif of ornate window traceries with pendant capitals, the only intricate detailing in the whole complex. Unlike the Ca' d'Oro these dignified palaces have well-proportioned, clearly organized façades, unencumbered by rich decoration, and they probably represent the high point in Gothic palace building in Venice.

By the mid-fifteenth century classical forms were already beginning to infiltrate, albeit very slowly, into Venetian architecture. In the Foscari and Giustiniani palaces this is evident only in the all'antica reliefs of putti bearing shields with the Foscari arms, but the process was to accelerate during the second half of the century. As if in resistance to the arrival of the new classical style, a few Gothic buildings of the later fifteenth century were built in an unprecedentedly intricate and florid manner, thus in a sense preparing the way for the death of the style, while others began to exhibit an intriguing blend of classical and Gothic forms. The most extreme example of the elaborate, ‘floriated’ Gothic style is the little Palazzo Contarini-Fasan, traditionally known as the house of Desdemona (fig. 62). This tiny palace is so small that the miniaturist scale and delicate intricacy of the detail offer no hint of vulgarity. Most effective and most original are the finely carved balustrades with their distinctive wheel motifs. (It may not be insignificant that this was the century in which the art of lace-making was first perfected in the lagoon.) Yet, further elaboration along these lines would have been inconceivable.

The use of round arches intersecting to produce Gothic pointed arches, which had already appeared in Venice in two much earlier and apparently isolated examples, the south transept of Santi Giovanni e Paolo and one of the great façade windows of the Palazzo Ducale, finally made its impact on Venetian palace architecture at this time. Possibly the idea was nurtured by the new interest in classical round arches, although the effect is quite unclassical. The use of this arrangement, extended sideways to articulate a whole window arcade, occurs in three splendid mid- or late-fifteenth-century palaces, the Palazzo Giovanelli at San Felice, and the Palazzi Cavalli and Pisani-Moretta, both on the Grand Canal. Whereas in the piano nobile of the Palazzo Ducale the quatrefoiled roundels are lodged securely between the crowns of the arches, in these three examples they rest on the joints of the arches, as if about to roll across the sweeping curves of the arcade. In the Palazzo Pisani-Moretta the two contrasting systems actually occur together, one above the other (fig. 63). In this palace some explicit references are already made to the classical tradition – for instance, in the pilaster orders that define the
ends of the façade, in place of the quoins often used in Venetian Gothic palaces. The stylistic variety does not undermine the overall effectiveness of the façade composition, but rather, it reflects the complexities that tend to accompany a period of transition between one architectural style and another.

The Venetian Scuole

It was in the Gothic period that the Venetian scuole, or guilds, developed their own particular type of building. The scuole fell into two main groups. On the one hand there were the so-called scuole grandi, the lay confraternities founded as offshoots of the ‘flagellant’ religious movement of the mid-thirteenth century. The first scuole grandi to be established in Venice were the Scuola della Carità, the Scuola di San Marco and the Scuola di San Giovanni Evangelista, all founded in the years 1260–61. The Scuola Grande della Misericordia dates from 1308, although its true origins may be earlier, and the Scuola di San Rocco
from 1478. A sixth, the Scuola di San Teodoro, was raised to the status of scuola grande in 1552.

On the other hand there were smaller guilds, known as the scuole piccole. These served a variety of different functions. Some were small confraternities with a religious motivation, usually occupying premises attached to a church or convent. Others were centres for colonies of foreign residents in the city, such as the Albanians, the Greeks and the Slavs (Dalmatians). The remainder were craftsmen’s and traders’ guilds. These were broadly similar in function to the guilds or arti found in other parts of Italy, but in contrast to cities such as Florence they were not dominated by wealthy merchants and bankers. Instead they served as institutions for defending the interests of smaller-scale artisans and shopkeepers. In Venice the most powerful merchants had no need of guild representation, for they themselves formed the ruling oligarchy.

The scuole grandi had originated as part of the intensely ascetic flagellant movement; but it was not long before the atmosphere of austerity was superseded by a desire for ostentation and display. The essential charitable functions continued, but the scuole also began to
take on a significant political role as the organs of self-government for the citizen class or cittadini, who were otherwise excluded from all high government positions except that of grand chancellor. In fact the Council of Ten, the smallest, most powerful body in the government, had overall responsibility for the running of the scuole, but in practice the cittadini were allowed at least some degree of control over their own affairs. The nobility, like the clergy, were forbidden to take part in the internal administration of the scuole, although they could be admitted as members.

The confraternities were financed by donations and subscriptions from their membership. Because of the substantial amount of wealth in the hands of the more prosperous non-nobles, the scuole grandi enjoyed generous budgets. The desire for salvation in the after-life prompted many donors to make charitable gifts and bequests, especially at the outset. A further incentive was provided by the sense of competition that grew up between the various scuole grandi. This competitiveness was to find its chief expression in the finery of their buildings, works of art and processionals banners.

While the scuole grandi promoted the interests of the citizen class, composed mainly of professional people and manufacturers, the scuole piccole represented the city's skilled workers, whose incomes were more modest but whose numbers were considerable. Like the scuole grandi they took great pride in their buildings and art treasures, and played a prominent part in public processions and pageants. Thus these confraternities – great and small alike endowed with both wealth and a passion for display – came to play a highly important part in the patronage of artists and architects in Venice.

The architectural configuration of all these types of scuola was similar, for they fulfilled a broadly comparable function as meeting places and as centres for dispensing charity to the more needy of their members. The typical scuola building took the form of two large halls, one above the other. The upper hall, usually called the sala del capitolo, was used for important meetings and often contained an altar for services (fig. 92), while the lower hall was used for less solemn, day-to-day administrative purposes. Because of their more complex function and greater wealth, the premises of the scuole grandi were more elaborate than those of the scuole piccole. In addition to their two main halls they had a smaller meeting room upstairs called the albergo, where the inner committee of sixteen members, known as the Banca, dealt with the day-to-day running of the scuola. Those of the scuole that were endowed with precious relics also needed separate reliquary chapels on the upper floor.

In their early years the scuole grandi, like the smaller religious confraternities, were affiliated to churches or abbeys. Soon, however, they
acquired the means to move to separate premises, usually adjoining an established church. In the boom years of the early fourteenth century, before the arrival of the Black Death in 1348, the oldest of the scuole constructed their first independent buildings. (It is notable that this was also the period when work was started on the new Palazzo Ducale and the great new churches of the Frari and Santi Giovanni e Paolo.) For example, in 1344 the Scuola della Carità opened its new headquarters, consisting of two huge rooms, one above the other, on a site adjoining the monastery of the same name (fig. 114). The façade was rebuilt in the eighteenth century, and further alterations were carried out when the Scuola was converted into the home of the Accademia di Belle Arti in 1807. Fortunately, the huge sala del capitolo is still in existence. Its Gothic windows have since been replaced by round-headed ones, but the way in which the ribs of the ceiling covering are transformed into vaults at the edges of the room, resting on corbels, preserves something of the Gothic character of the room. The ornate gilded wooden ceiling was begun in 1461 and completed in 1484. The eight-winged cherubs that decorate each diamond-shaped panel are thought to symbolize the surname of Ulisse Aliotti, who was guardian grande, or chief officer of the Scuola, when the ceiling was started.

The albergo was added in 1384, and enlarged to its present l-shape in the years 1442-4. This room, too, still displays its richly carved and painted wooden ceiling, probably dating from the end of the fifteenth century, as well as the wooden benches around the walls. Although it now serves as a passageway for visitors to the gallery, some of whom hardly even pause to notice Titian’s great canvas of the Presentation of the Virgin, one can still visualize the albergo in its original capacity as a small meeting room for members of the banca of the Scuola.

The most complete surviving example of a scuola grande erected in the Gothic period is the Scuola Vecchia della Misericordia, situated on the north-western fringes of the city (fig. 64). The foundation of the building probably dates back to 1310, but it was substantially renovated several times during the fourteenth century. In 1411-12 the members decided to erect a new albergo, and the building was further enlarged in the 1430s. In 1441 the Scuola resolved to rebuild the façade. At this time, or possibly earlier, Bartolomeo Bon executed his great relief sculpture of the Madonna della Misericordia, now in the Victoria and Albert Museum, London, which was placed over the main doorway. The arcade along the waterfront was inserted in the early sixteenth century to provide access to the new almshouses beyond, built in the years 1504-6.

Some of the masonry of the present structure presumably dates from the fourteenth century, for it was an essential economy measure in Venice to conserve whatever was usable from previous structures. The
Scuola Vecchia della Misericordia, fourteenth to fifteenth centuries

Piano-nobile windows topped by finials and decorated with finely carved traceries are, however, certainly fifteenth century in date. They have in common with the Ca' d'Oro and the Giustiniani palaces the unusual motif of a pendant capital suspended from the centre of the traceries. The alternating cusped and stepped profile of the top of the façade, with its ornate corner pinnacles, is a typical fifteenth-century Venetian Gothic arrangement. Unlike the window traceries, however, this derives from religious architecture, for the scuole were in effect the meeting point of secular and religious traditions.

By a stroke of fortune the interior has been little altered since the fifteenth century, because from the sixteenth century onwards the Scuola della Misericordia was preoccupied with the erection of an even more grandiose building nearby to replace it. After the move to the new premises in 1589 the upper room was used by Tintoretto for painting the canvases for his enormous painting of Paradise for the Palazzo Ducale. That the structure has survived so well is due to a large extent to the thorough and sensitive restoration carried out by the painter and art collector Italo Brass, who acquired the disused building in 1920. It now serves as a state-aided restoration laboratory.

Inside, the small entrance hall containing the simple stone staircase still preserves its pretty coffered ceiling decorated with Scuola emblems. Because of the existence of the cloister of the abbey on one side and the insertion of the early-sixteenth-century sottoportego on the other, the lower hall or androne beyond is long, narrow and dark. This makes
the effect of the huge, luminous salone upstairs all the more striking, its size emphasized by the expanse of glossy terrazzo floor and the rhythms of the ceiling beams.

None of the Venetian scuole piccole preserves its Gothic premises intact. The Scuola dei Calegheri at San Tomà, the headquarters of the shoemakers' guild, gives some impression of the Gothic building type, although the structure has since been substantially altered, for example by the later insertion of shops (fig. 65). The central portal, with its slightly inflected arch topped by a finial and its lintel decorated with reliefs of shoes, dates from 1478. The lunette relief, a product of the Lombardo workshop, shows Saint Mark Healing the Cobbler Anianus, a neat combination of State and guild iconography. In the upper sala, now a public library, a series of lively wall-paintings has been preserved – precursors of the great canvases that were to adorn the scuole from the late fifteenth century onwards. But in general the competitiveness of the scuole meant that they were constantly renewing their buildings in emulation of each other. After the Gothic style passed out of fashion all the scuole with the available funds modernized their premises, leaving only the basic building type as a legacy of their Gothic traditions.
Chapter 5

Early Renaissance

The Renaissance of the visual arts – launched in Florence in the early fifteenth century by Masaccio in painting, Ghiberti and Donatello in sculpture and Brunelleschi in architecture – gradually pervaded the whole of Italy. But its progress was slow. In Venice there was little impetus to supplant local Gothic traditions before about 1460, and even then these died hard. The Venetians had evolved their native Gothic style during the peak of their political and economic power, and had no grounds for considering their own culture deficient or backward. It was natural for Doge Foscarì to build his magnificent family palace in the style of the Palazzo Ducale, as if to commemorate his own rise to the highest office in the land, rather than in the style of Brunelleschi, which would have had no such associations for him. As in Milan, where a similar time lag occurred, the Gothic style was so deeply rooted in the city that it continued to flourish and even to develop a new luxuriant growth despite frequent visits by Tuscan artists.

During the first half of the fifteenth century a number of notable sculptors came to Venice from central Italy. Ghiberti spent a few months in the city in 1424 in flight from an outbreak of plague in Florence, and may have made another short visit around 1430. Jacopo della Quercia made repeated journeys to Venice to buy materials while he was working on the main portal of San Petronio in Bologna in the years 1425-7. Neither of these artists was employed in Venice, but a group of lesser Florentine sculptors made an important contribution to the decoration of both San Marco and the Palazzo Ducale from about 1416 onwards. They were led by Niccolò di Pietro Lamberti, who had formerly been a master sculptor in Florence cathedral. With his distinctly Gothic tendencies Niccolò was unable to stand up to the competition of Ghiberti and Donatello in Florence, but his style suited less radical Venetian tastes. He was accompanied by his son Pietro as well as by Giovanni di Martino da Fiesole and a former collaborator of Donatello, Nanni di Bartolo, called ‘Il Rosso’. Although their sculpture shows many borrowings from Donatello and Ghiberti they were less interested in the incipient classicism of the Renaissance, and as a result their work blended well with
that produced in local and Lombard workshops. Donatello’s wooden *Saint John the Baptist* for the chapel of the Florentine colony at the Frari, signed and dated 1438 and therefore presumably sent from Florence, is almost Northern in its brutal realism and did little to turn Venetian art towards a more idealized classical approach.

In painting, too, Venice had access to modern Florentine developments through visiting artists. The Venetian love of intricate decoration and flowing Gothic forms seems to have led to the choice of the great International Gothic painters Gentile da Fabriano and Pisanello to paint frescos (destroyed in the fire of 1577) for the Sala del Maggior Consiglio in the Palazzo Ducale. More surprisingly, two more severely classical Tuscan painters, Paolo Uccello and Andrea Castagno, were employed in the city. Uccello spent several years designing mosaics for San Marco from about 1425 to 1430; and Castagno came in 1442 to paint a series of monumental frescoed figures in the apse of the old church of San Zaccaria. Shortly after completing his famous treatise on painting, *Della pittura*, Leon Battista Alberti came to Venice in 1436/7, revisiting the city where he had spent part of his early adolescence during his family’s exile from Florence.

The Florentine artists who visited Venice in the fifteenth century also included the distinguished architect Michelozzo, who accompanied his patron Cosimo de’ Medici during his period of exile in the Veneto in 1433–4. Michelozzo himself actually designed a building in the city. This was a library that Cosimo founded at the Benedictine monastery of San Giorgio Maggiore in gratitude for the monks’ hospitality. No trace survives of the building, which was damaged by fire and replaced in the seventeenth century by the existing library designed by Longhena. We know little of its appearance. Vasari tells us only that it was ‘not only finished with walls, desks, wooden furnishings and other decoration, but also filled with many books’. According to Francesco Sansovino (writing after his father had erected his own splendid Biblioteca Marciana) it was as fine as any other library in the city. Probably the design foreshadowed that of Michelozzo’s later library, also founded by Cosimo, in the Dominican friary of San Marco in Florence, built from 1441 to 1444. At any rate, from our knowledge of Michelozzo’s other works it can be assumed that it was a lucid, elegantly proportioned, vaulted hall with classical details and restrained but delicately carved ornament. Yet, as we shall see, local architects showed little interest.

Although, as Fritz Saxl pointed out in two classic lectures in the 1930s, Venetian art does reveal traces of classical erudition from the fourteenth century onwards, her visual culture tended to resist the importation of Renaissance ideas. Petrarch found an influential contingent in Venice unsympathetic towards his enthusiasm for Latin literature, despite the warm welcome offered by a few enlightened individuals. Venice had less
of a tradition of humanist studies than Florence, or even the nearby city of Padua. The typical education for the young Venetian patrician was a period spent at sea, on merchant galleys or in the navy, rather than a more intellectual training. Some young nobles were taught classical studies by private tutors, but it was not until the middle of the fifteenth century that an official school for the sons of patricians was established, attached to the chancery. By contrast, in Padua, with its ancient university and deep interest in classical studies, artistic patronage had been more enlightened from an early date. Giotto and Giovanni Pisano worked there in the Scrovegni chapel at the beginning of the fourteenth century, while in the fifteenth century the presence of Donatello from 1443 to 1453 and of Filippo Lippi between 1434 and around 1436 had a strong impact on local artistic activity.

We should not think of Venice as conservative in her unreceptive attitude to Tuscan early Renaissance culture. The disregard for the achievements of the Florentines was not so much a case of introverted self-absorption or narrow mindedness, as one of rich and varied interests directed elsewhere. As we have already stressed repeatedly, Venetian prosperity depended first and foremost on trade. And this trade was chiefly based on the exchange of merchandise from the eastern Mediterranean with goods from north of the Alps. Thus Venetian commercial and cultural links were with the Islamic world and northern Europe, rather than with Florence and the humanist courts of northern Italy. Contacts with both the North and the East continually reinforced the Venetian love of rich naturalistic surface ornament and the pointed arch. The oriental influence is reflected in the fact that the tradition of Greek scholarship was deep-rooted in Venice. Already in the fourteenth century the study of Aristotelian and natural philosophy was well established. In 1468 Cardinal Bessarion of Trebizond left his rich library, including some five hundred Greek manuscripts, to the Venetian Republic in recognition of the city’s interests. At the end of the fifteenth century, when the Aldine Press began to print classical writings in the city, Greek texts were among the most popular titles. Furthermore, Venice was exceptional among major Italian cities in having no Roman infrastructure, although there were conspicuous Roman antiquities on Venetian territory, especially in Verona, Rimini and the Dalmatian towns of Pola and Spalato (now Split). The fact that influential, wealthy Venetians were in constant contact with the North and the East probably explains why these styles had such a profound influence on Venetian art and architecture, long overriding what may in retrospect seem more enlightened, namely the revival of classical antiquity.
The Beginnings of the Renaissance in Venetian Architecture

In Venice, apart from Michelozzo’s library which stands on its own, the earliest examples of true Renaissance architecture – in other words, those built in conscious emulation of the style of the buildings of antiquity – date from about 1460. By this time Brunelleschi had been dead for fourteen years, and Alberti had already completed the manuscript of his great treatise on architecture, De re aedificatoria. Renaissance buildings were now rising in many other Italian cities – Rome, Naples, Milan, Rimini, Urbino and Mantua among them – and by the end of the century the Gothic style was to have virtually died out, even in Venice.

One of the very first classical-style monuments in the city was the gateway to the Arsenal, erected under Foscari’s successor, Doge Pasquale Malipiero, and dated 1460 on one of the pedestals of the side columns (fig. 66). With its two pairs of free-standing columns flanking a central archway it was surely intended to be recognized as a restatement of the theme of the Roman triumphal arch. Indeed it is modelled on a true antique prototype, the Arco dei Sergi in the Istrian town of Pola. This archway, actually a free-standing funerary monument, was certainly well known in Venice, since Pola was then under Venetian rule. In the sixteenth century it was drawn by several architects, including Fra Giocondo, Falconetto, Serlio and Palladio, although these may not all have visited the monument in person. The architect of the Arsenal gateway, who was probably Antonio Gambello, transformed the fluted half-columns of the Arco dei Sergi into free-standing smooth columns, apparently to make use of four precious marble column shafts taken from an older building. The capitals do not conform to an antique model but instead are lacy Byzantine-style ‘basket’ capitals, likewise probably reused from another monument. The architect seems to have considered these as part of his classical heritage, just as Tuscan architects of the early Renaissance turned to their local Romanesque prototypes for inspiration. After the Venetian victory over the Turks at the battle of Lepanto in 1571 the gateway was turned into a true triumphal arch by the addition of a commemorative inscription. The terrace built in front of the gateway in the late seventeenth century is an unfortunate addition, for it undermines the original function of the monument by obstructing the entrance.

A second extremely innovatory building was begun in Venice at about the same time, although it never progressed very far. This was the Ca’ del Duca on the Grand Canal at San Samuele, so-called because it was acquired by Francesco Sforza of Milan (fig. 67). The duke’s former palace on the site of Ca’ Foscari had been confiscated in 1450 during hostilities between the Milanese and Venetian states, but after the Peace of Lodi he was allowed to take over another Venetian palace, this time one at
67 Ca’ del Duca, San Samuele, designed by Bartolomeo Bon, begun by 1457, left incomplete 1460

68 ‘House in a Marshy Place’, from Filarete’s treatise on architecture (c.1460–64), manuscript made for Matteus Corvinus, 1484 (Biblioteca Marciana, Venice)
San Polo which had belonged to Gattamelata, the famous condottiere (mercenary captain) portrayed in Donatello’s great equestrian statue in Padua. In 1458 Sforza sent the best of the architects then under his service in Milan, Antonio Filarete, to make a design for a new house on this site. In 1460, however, acting through his Venetian ambassador Guidobono, Sforza instead arranged to exchange the old house for one on the Grand Canal recently begun by a member of the fabulously wealthy Cornaro family. By this time Filarete was very busy in Milan directing work on his Ospedale Maggiore, so Sforza sent in his place another Florentine architect, Benedetto Ferrini, to prepare a project for the new palace. The foundations laid by the previous owner, Andrea Cornaro, were not, it seems, ideal, but in 1461 Ferrini began two large-scale models to illustrate his own solution, using the existing structure as the basis for his design.15

In the event no more building work was done on the palace after it was acquired by Sforza in 1461, and indeed in 1466 the contract of sale was revoked. The letters concerning the sale reveal that the boldly rusticated Istrián-stone basement and the single unfinished corner column, now surmounted by later buildings of no special merit, were the work of none other than the local stonemason Bartolomeo Bon. In no other Venetian building did Bon make so dramatic a leap of imagination. Indeed, Bon’s façade proposals pleased the duke, who decided only to revise the design of the interior. This was the first prominent Venetian building intended to be faced entirely in Istrián stone.16 Moreover, the imposing facet-cut masonry a diamante would have given the palace an air of impregnability far removed from the characteristic openness of Venetian domestic architecture.17

How the palace was to have been completed is uncertain, but there is a strong possibility that the illustration of a ‘House in a Marshy Place’ in Filarete’s treatise may reflect Ferrini’s model (fig. 68).18 This design shares with the executed parts of the building the long frontage on the water’s edge, the central water gate, the diamond pattern on the lower walls and the stocky corner columns. Alternatively it may represent a project for the same site by Filarete himself. The corner towers and waterfront portico are a recollection of the pre-Gothic Veneto–Byzantine tradition, but the forms are those of the Tuscan Renaissance.

How much Venetian architects knew of the scheme is equally uncertain. The manuscript of a Latin translation of Filarete’s treatise, made in 1484 for Matthias Corvinus, king of Hungary, was acquired by the library of the monastery of Santi Giovanni e Paolo in 1490.19 The craftsmen who made Ferrini’s great wooden models in 1461 obviously had precise knowledge of the design, but how influential it proved to be at this early stage is not clear.20
While some palaces built in the succeeding decades clung to the luxuriant late Venetian Gothic style, others were constructed using purely classical forms. For example, the façade of the delightful Ca’ Dario on the Grand Canal, begun in the 1480s for Giovanni Dario, celebrated Venetian diplomat and former envoy at the Turkish court, displays neither the classical pediments nor the Tuscan biforate windows of Filarete’s ‘House in a Marshy Place’. Instead, the windows are simple round-headed openings arranged asymmetrically in the traditional Venetian manner characteristic of smaller-scale palaces (fig. 69). Ca’ Dario is jewel-like in its combination of surface richness and small size. The façade is inlaid with fine marbles, their shimmering, chromatic effect alluding to the patron’s Eastern exploits. He may even have acquired the valuable pieces of porphyry and other marbles while in Constantinople. The ‘telephone-dial’ patterns on the flat wall surfaces possibly reflect an Islamic prototype, here executed by local masons familiar with the marble pavements of Veneto-Byzantine churches such as San Marco.21

Not surprisingly, in the Palazzo Ducale, cradle of Gothic secular architecture in Venice, classical forms were at first used tentatively. Here the Gothic style had received what was probably its most extravagant expression in the whole city in the Porta della Carta, the main entrance to the palace, begun by Giovanni and Bartolomeo Bon in 1438 under Doge Francesco Foscari.22 This gateway, tucked between the south wall of San Marco and the new Piazzetta wing of the Palazzo Ducale, needed an element of flamboyance to draw attention to its important function. But the intricacy of the richly carved pinnacles and crockets also reflects the general move towards a more and more ornate Gothic style in fifteenth-century Venice. Like the Ca’ d’Oro, the Porta della Carta was originally richly painted and gilded – a glimpse of its golden decoration is visible in the right background of Gentile Bellini’s Procession in Piazza San Marco (fig. 17).

On the courtyard side of the entrance a more sober line was taken in the so-called Arco Foscari, begun under Doge Foscari some time after 1438, continued under Doge Cristoforo Moro (1462–71) and completed under Doge Mocenigo (1478–85) (fig. 70). The designer of the first stages was apparently once again Bartolomeo Bon, while the completion of the arch is attributed to Antonio Rizzo.23 The central rounded archway, flanked by narrower bays with niches containing statues, is essentially classical in style and was surely intended to recall antique triumphal arches. In contrast to the Arsenal gateway, however, the inspiration was not a true Roman prototype but instead (far closer at hand) the church of San Marco. It is from San Marco that the architects borrowed the two superimposed orders with their clusters of columns bordering a great round-arched portal, as well as the continuous balustrade and the
Gothic pinnacles and crowning statues above. The use of this source was not purely a device to harmonize the new archway with its very imposing setting. In Florence, as in other parts of Italy, the first Renaissance architects often turned for specific ideas to the nearest available famous pre-Gothic monument. The underlying intention was certainly to create an all’antica style, but by this time even the Romanesque (or in Venice, the Byzantine) heritage had acquired an antique aura and was recognized as a late manifestation of a continuous classical tradition.

The great fire that damaged the east wing of the Palazzo Ducale in 1483 could have provided the opportunity for a wholehearted acceptance of Renaissance architectural tenets, but, as we shall see, some hesitancy still persisted. After all, the Gothic Palazzo Ducale was a potent symbol of the Venetian Republic at the height of its glory. It is known that the new wing erected after the fire incorporated some of the original structure, but the huge sum of 80,000 ducats spent on the rebuilding suggests that relatively little was preserved. Work was directed by the Veronese stonemason Antonio Rizzo who, improbably, had already received an award for military bravery from the Republic. After he fled to Foligno in 1498 under suspicion of having robbed 12,000 ducats from palace funds, Rizzo’s place as proto in charge of the building (then at least half-finished) was taken by Pietro Lombardo. The southern extension of the east wing was not finally rebuilt until after 1553.

The high point of Rizzo’s contribution was the grand staircase leading from the courtyard to the doge’s apartments on the piano nobile, now known as the Scala dei Giganti because of Jacopo Sansovino’s two colossal statues placed at the top in 1566 (fig. 71). From the beginning the architectural significance of the staircase was recognized. Francesco Sansovino pointed out that not only could the whole flight be seen from the foot of the Campanile through the Porta della Carta, but it was also visible from the Molo entrance of the palace. The staircase was thus the focal point linking these two axes. It also had great ceremonial importance. In 1485 the Maggior Consiglio resolved that the climax of every ducal coronation, the placing of the beretta on the head of the new doge, should take place at the top of the staircase, after the religious service in San Marco and the grand procession around the Piazza. The same setting was used by the doge for welcoming ambassadors and important visitors. As a curious extension to the expression of ducal authority there was a prison cell beneath the staircase.

The form of the grand ceremonial staircase has remarkable precedents among the drawings of Jacopo Bellini, who also bequeathed the same motif to Venetian Renaissance narrative painting. As a painter Jacopo rarely freed himself from the legacy of Gothic and Byzantine traditions, but his drawings show a fine grasp of modern perspective and of clas-
sical architectural vocabulary. In his youth he had studied with Gentile da Fabriano, and he may even have visited Florence himself. The triple arch at the top of the staircase, the middle landing, the benches along the sides, the chamber beneath and, above all, the scenic effect of the courtyard setting, are all prefigured in drawings in his sketchbook in the British Museum, London. Jacopo died in 1470/71, more than a decade before the Palazzo Ducale staircase was begun, but Rizzo must certainly have known of his ideas.

Like the courtyard façade of the new east wing of the palace, the staircase was the vehicle for a complex iconographical programme glorifying the Republic and the office of doge. The Barbarigo family arms are also prominently displayed, for much of the sculpture was executed during the dogeships of Marco Barbarigo (1485–6) and his brother Agostino (1486–1501). It seems that the elaborate relief sculpture, which covers the whole wing as well as the sides of the staircase, was intended to be read almost like the illustrations in a book. The romantic humanist fantasy, Francesco Colonna’s *Hypnerotomachia poliphili*, written in Venice in the same years, is perhaps the closest literary parallel. Although we are no longer able to appreciate the full subtlety of the intentionally secretive iconography, we can at least appreciate the
high quality of much of the stone carving. Ideas were loosely drawn from a wide range of antique sources, especially from classical gems and sculpture, which were already being assembled enthusiastically by collectors in Padua and even in Venice.32

The design of the staircase is sufficiently emphatic, coherent and simple to dominate and contain the elaborate sculptural programme. The same could hardly be said of the rest of the east wing, where the richness of the surface ornament cannot conceal the irregularity and stylistic inconsistency of the whole (fig. 70). The Gothic arches of the piano-nobile arcade, presumably chosen in deference to the existing Gothic portions of the palace, are inserted between the round arches of the portico below and the classical-style pedimented windows and all'antica relief sculpture above. The haphazard arrangement of the windows is governed chiefly by the distribution of rooms in the interior. The northern section, reconstructed after the fire of 1483, recalls the elements of a Venetian palace façade with its central portego – this was, after all, the doge's residence. The triumphal triple arch at the top of the Scala dei Giganti, however, interrupts this symmetrical Venetian-style composition, lying on a different axis. Like the edge of a forest the whole composition makes its effect not by bold, regular rhythms, but by the play of light and shade.
on an intricate and constantly varied frontage. The wing is a graphic illustration of the way in which, in Venice, the north Italian love of rich surface decoration, fostered by Lombard stonemasons working in the city, predominated over the Florentine taste for lucidity and carefully harmonized proportion.

Religious Architecture in Early Renaissance Venice

In this period of transition between the Gothic and Renaissance styles in Venice, ecclesiastical architecture once again proved most receptive to ideas from mainland Italy. It was in the church of San Giobbe, rebuilt at the instigation of Doge Malipiero’s successor, Doge Cristoforo Moro, that the Tuscan Renaissance first began to make its mark on Venetian architecture. The new church and friary were founded on the site of a hospital and small oratory dedicated to San Giobbe, to commemorate the visit of San Bernardino of Siena to preach there in 1443. Since 1428, the oratory had been occupied by the Observant branch of the Franciscan order, to which San Bernardino himself belonged. The saint’s tremendous popular appeal had brought him a huge audience in Venice. On his visit to the Veneto he had also predicted to Moro that he would one day be doge. San Bernardino was canonized in 1450, only six years after his death and twelve years before Moro’s election to the dogeship. In 1470 Moro persuaded the Senate to include him as one of the protectors of the Republic, joining Saints Theodore and Magno.33

The simple aisleless nave was begun around 1450 in a late Gothic style, with side chapels on one side only because the presence of the cloister precluded them on the other. The chancel, where Moro himself was buried, is far more ambitious (fig. 72). Even at this time the identity of the architect was still considered a relatively unimportant matter, with the result that we do not know with certainty who was responsible for the designs. The nave, like the Arsenal gateway, is attributed to the local architect Antonio Gambello. The chancel, choir and chapels were probably finished under the direction of Pietro Solari – known as ‘il Lombardo’ because he came from Carona in Lombardy – after Moro’s death in 1471.34 The church was consecrated in 1493.

Curiously, neither the dome nor the present retrochoir behind the chancel is visible in the image of the church in Jacopo de’ Barbari’s scrupulously accurate woodcut bird’s-eye view of Venice of 1500.35 The positioning of the choir behind the high altar instead of its traditional place in front of the chancel (where the choir of the Frari church still remains, figs 47 and 48) was to become an increasingly popular innovation in the sixteenth century, especially in Observant and Reformist contexts. It is tempting, therefore, to suggest that this is one case where
de' Barbari's view failed to represent the real situation. Indeed, Gothic masonry on the exterior walls indicates that the structure of the retro-choir already existed in the fifteenth century.  

The presbytery of San Giobbe provides the earliest evidence that the achievements of Brunelleschi and Michelozzo were becoming known and understood in Venice. As in the east wing of the Palazzo Ducale the Venetian enjoyment of elaborate surface decoration is still prominent. The piers, capitals and friezes are all skilfully carved with delicate all'antica reliefs, probably produced in the workshop of Pietro Lombardo. Yet the beauty and richness of the ornament in no way detracts from the clarity and harmony of the whole. The entrance to the chancel forms a great triumphal arch with niches serving as small chapels on either side. The square presbytery is surmounted by a dome hovering just above the crowns of the arches and lit by windows in the drum. The pendentives are decorated with tondo reliefs of the Evangelists attributed to Pietro Lombardo himself.
Of course the domed, centrally-planned space had a long ancestry in Venice, especially in funeral chapels and martyria, not least of these the ducal chapel of San Marco. This form was therefore particularly appropriate for Doge Moro’s burial place. Here, however, the elements are not Byzantine but seem instead to derive ultimately from more recent Florentine prototypes such as Brunelleschi’s old sacristy in San Lorenzo. Evidence of a direct link with Tuscany in the 1470s is provided in one of the side chapels of the nave of San Giobbe, which belonged to a family of silk weavers from Lucca called Martini. The vault of this chapel is decorated with glazed terracotta reliefs from the della Robbia workshop, and the sculpture on the altar is attributed to the school of Antonio Rossellino. This chapel is a miniature, much simplified version of the Cardinal of Portugal’s chapel in San Miniato in Florence, decorated by the same artists in the 1460s.

The strong Tuscan influence in San Giobbe, so uncharacteristic of Venetian architecture of the period, must also reflect ideas that were widespread among Observant Franciscan communities at the time. In particular, the simple aisleless nave adopted a formula established in recent Observant church building in Tuscany. The osservanti were the reformed, more ascetic division of the Franciscan order. San Bernardino himself was a fervent propagator of their ideas and was vicar general of the branch from 1438 until 1442. In that year Pope Eugenius IV allowed him to resign in order to return to his life as a preacher. His own friary was that of the Osservanza, just outside Siena. In 1423 he had the old church rebuilt, and it was again remodelled at the end of the fifteenth century, probably with instructions from the important Sienese architect Francesco di Giorgio, or his pupil and close friend Giacomo Cozzarelli. In the case of the Osservanza it is difficult to ascertain how much of the design of the present church (restored after severe damage in the Second World War) dates from before the building of San Giobbe and how much from after. But the similarities between the two churches – the aisleless nave with side chapels, the domed chancel and the long retrochoir – are so marked that some link seems inevitable. As in the case of the first mendicant-order churches in Venice, it was through the religious orders that new ideas from elsewhere in Italy were most easily imported into the city.

Reminiscences of Tuscan religious architecture are also apparent in Santa Maria dei Miracoli, one of the best-loved churches in Venice, built by Pietro Lombardo between 1481 and 1489 (fig. 73). This unusual little church, a simple barrel-vaulted chapel with a raised choir over a crypt at the east end, was built to house a devotional image of the Virgin, which in the year 1480 had supposedly developed miraculous powers. Numerous miracles are recorded, including the removal of all evidence of attack from a woman who had been stabbed and left for dead, and
Santa Maria dei Miracoli, by Pietro Lombardo, 1481–9
the rescue of a man who had fallen into the Giudecca canal while washing and remained under water for half an hour. Private donations and votive offerings flowed in, and within six months of the first miracle the foundation stone of the chapel had been laid. The addition of the domed high-altar chapel at the east end seems to have been an afterthought. It was begun in 1485 after the decision to build a convent beside the church for specially chosen Franciscan nuns from Santa Chiara in Murano.

That the Miracoli was primarily a votive chapel rather than a convent church accounts for some unusual features of the design. The complete marble facing on all four sides helps to draw attention to the church in its cramped urban site, near the wall where the image hung when the miracles began to occur. There are no other examples in Venetian architecture of such a simple barrel-vaulted nave, except in small chapels such as the Mascoli chapel in San Marco and the Arena chapel in Padua. The coloured marble decoration of the exterior not only recalls the wealth of precious marbles on the church of San Marco, but also looks to Tuscan Romanesque traditions. Indeed the arrangement of the two orders of the exterior seems to be borrowed directly from the Baptistry in Florence, popularly believed to be a classical building; and tondo busts like those in the spandrels of the Miracoli also appear on Ghiberti’s famous Baptistry doors. As we have seen, the choice of Romanesque models was characteristic of early Renaissance architecture in Italy; but the choice in Venice of a Tuscan prototype was still unusual and surprisingly adventurous. Lieberman suggested that Mauro Codussi may have been the designer of the original model and that Pietro Lombardo was merely the executant. There is no direct evidence of Codussi’s involvement, and the coloured inlays and elaborate all’antica relief sculpture are far more typical of the Lombardo workshop; but on the other hand, Codussi used Tuscan sources more freely than his contemporaries in Venice, as will become clear later in this chapter. Whoever the designer, the Miracoli stands on its own in Venetian architecture of the period – like a richly inlaid jewel box to contain the precious painting.

**Mauro Codussi (c.1440-1504)**

One of the most difficult problems in the history of Venetian art is that of disentangling the individual contributions of the various stonemasons from Lombardy and the area around Bergamo working in fifteenth-century Venice. As a group, these master craftsmen were responsible for replacing the long established Venetian Gothic style with the new classical forms of the early Renaissance. For the most part they used
all'antica elements decoratively and somewhat naively. But among the attractive if provincial buildings that they erected in Venice in the second half of the fifteenth century, a few stand out as indisputable masterpieces.

For 400 years the identity of their architect was lost to posterity. It was not until the end of the nineteenth century that Paoletti, after carefully scrutinizing all the documents that he could trace, finally isolated the name and thus the artistic personality of the most talented of these immigrant stonemasons.\(^4\) He was Mauro Codussi, who was born near Bergamo around 1440 and died in Venice in 1504. As early as 1581 his genius had already been forgotten: Francesco Sansovino mentions 'Moro Lombardo' only once, as one of two possible architects of the church of San Giovanni Crisostomo.\(^5\) The existence of 'Moro, son of Martino' at the Scuola di San Marco had been known since Temanza's archival researches in the eighteenth century, though as a mere stonecutter.\(^6\) In contrast to Tuscany, the medieval anonymity of artists persisted in Venice right through the fifteenth century, even after the Gothic style had virtually died out in the city.

Now that Codussi has been identified with certainty as the architect of such impressive works as the churches of San Michele in Isola and Santa Maria Formosa, the slender white campanile of San Pietro di Castello, and the masterful double staircases of the scuole of San Marco and San Giovanni Evangelista, we should ask ourselves what exactly was the nature of his individual contribution to Venetian architecture — so soon forgotten, yet so conspicuous.

Codussi is first recorded in Venice in 1469, at work on the church of San Michele in Isola, begun in the previous year (fig. 74).\(^7\) This church was erected for a hermitage belonging to the Camaldolese branch of the Benedictine order, situated on the island between Venice and Murano that is now the city's cemetery. We know a good deal about the building history of the church from letters written to the abbot, Pietro Donà, who was repeatedly away in Ravenna, by Pietro Delfino or Dolfin, the monk who took his place during his periods of absence. Delfino's correspondence reveals that Codussi, too, was called to Ravenna by the abbot on several occasions, to work at the Camaldolese abbey at Classe. Despite the day-to-day practical and financial problems of the building work at San Michele, which Delfino's letters chronicle vividly, the church was inaugurated as soon as 1477. In a letter in that year Delfino described it proudly as second only to the church of San Marco.\(^8\)

It is tantalizing that nothing is known of Codussi's artistic training, or of how he came to be chosen to design this church. He certainly learned much from his travels. The Byzantine monuments of Ravenna, like the church of San Marco in Venice, must have been viewed by Codussi, as by many of his contemporaries, as an integral part of the classical heritage. Thus the three-aisled nave of San Michele, with its two rows
of columns supporting round arches, recalls the much larger basilica of Sant’Apollinare Nuovo in Ravenna, which dates from the early sixth century. On his journey down the Adriatic coast Codussi must also have seen one of the most avant-garde early Renaissance buildings in Italy – Alberti’s Tempio Malatestiano at Rimini, begun around 1450 though never completely finished. The façade of San Michele, with its attic storey crowned by a huge lunette and flanked by convex curves, is strongly reminiscent of the Rimini church as it appears on Matteo dei Pasti’s foundation medal. Huge crowning lunettes were, of course, also a prominent feature of the façade of San Marco. Moreover, some Venetian Gothic church façades had a similar type of lobed profile. However, the fact that the monks themselves seem to have known something of Alberti’s theoretical ideas suggests that the resemblance to the Tempio Malatestiano was the result of Codussi’s direct knowledge of Alberti’s work.\(^4\)

Codussi’s documented journeys to obtain stone from Istria and Verona must have given him the opportunity to familiarize himself, too, with real – that is, Roman – antiquity. Although he almost certainly never travelled to Rome, the classical remains of Verona, Pola and Spalato offered a rich supply of all’antica ideas.

In a curious way, tracing the sources of Codussi’s style makes his achievement seem only more amazing, for with limited knowledge of the buildings of antiquity he produced some of the most serene and harmonious classicizing architecture in the whole of the Italian Renaissance. Already in San Michele he handled classical forms in a most authoritative manner – to organize and explain, rather than to decorate, the structure of the building. Both inside and out, ornament is used with restraint, to highlight the points of emphasis. The individual details are not only beautiful, but are also executed with perfect precision. One has only to look at the exquisite capitals of the nave arcades (each pair different), the shell motifs in the façade, the chain moulding around the large central oculus, and the clean-cut rustication that gives texture to the pristine whiteness of the façade. The use of rustication (which usually expressed the defensive character of a building) on the façade of a church was a highly original touch. It is possible that Codussi chose rustication for the façade of San Michele to convey the fact that the island monastery was a hermitage. He obviously knew the rusticated foundations of the Ca’ del Duca on the Grand Canal, and must also have been familiar with rusticated palaces in Florence such as Alberti’s Palazzo Rucellai. A distinguished recent precedent for rusticated pilasters already existed in Tuscany, in Rossellino’s Palazzo Piccolomini in Pienza, of 1459–62. As the family palace of Pope Pius II in the newly remodelled centre of his native town, this source offered to the Camaldolese monks an ideal combination of religion, humanist learning and nobility. The extension of the rustication across the pilaster order was an idea that would rarely
be seen in Italy before it became popular with Mannerist architects in the sixteenth century.

It is a commonplace that Venetians enjoyed chromatic richness, in architecture as in painting and mosaics. But Codussi showed that the whiteness of Istrian stone, with almost no coloured marble inlay, could be extraordinarily effective. The church of San Michele, floating like an iceberg in the lagoon, must have inspired Palladio a century later when he designed the façades of San Giorgio Maggiore and the Redentore (figs 118 and 121). As we have seen, in Venice in the Gothic period churches and palaces alike were usually built of brick, with Istrian stone confined to details such as door and window frames, quoins, gutters and string courses. With the arrival of the Renaissance, architects began to mask brick structures with stone and marble, searching for a more imperial effect. While his contemporaries, in buildings such as the Ca’ Dario, the Arco Foscari and the church of the Miracoli, were experimenting with coloured marble inlays, Codussi continued to explore the visual and physical qualities of Istrian stone, which was easy to carve, durable and relatively cheaply imported by sea.
In 1482 he took on the refacing of the campanile of the cathedral of Venice, San Pietro di Castello, situated at the eastern extremity of the city (fig. 75). This commission came from the patriarch, Maffei Gerardo, a former abbot of the monastery of San Michele in Isola.50 Because of their long-standing suspicion of ecclesiastical power, Venetians were probably grateful for the remoteness of the site of the cathedral. Codussi, however, gave the city a forceful reminder of its presence, in the form of a completely white, lofty bell tower, topped by an elegant octagon. He himself made several journeys to Istria to choose stone from the quarries. Originally the campanile was roofed by a dome, which unfortunately became unsafe and was replaced by a simple pitched roof in the seventeenth century.51 At this period, all the other bell towers of Venice were built in red brick, so that Codussi’s snow white campanile, sunlit like a beacon against a deep blue sky, would have been all the more striking. Its configuration strongly suggests an explicit allusion to the Pharos of Alexandria, the celebrated ancient lighthouse newly destroyed by the Mamluk Sultan.52
The paired columns and shell niches of the crowning octagon of the tower suggest that Codussi may have had some knowledge – perhaps through drawings or verbal accounts – of the octagonal exedrae that Brunelleschi had built around the great dome of Florence cathedral. As we noted in the case of San Giobbe and the Miracoli, Venice was not quite impervious to Tuscan influence, and ecclesiastical patrons were often those who encouraged the importation of ideas from outside Venice.

While the episcopal seat was answerable to Rome, and monasteries were in regular contact with other members of their orders elsewhere in Italy, the parish churches of Venice were extremely localized in their organization. It was the parishioners who elected the clergy and financed the erection of new churches. Thus it is not surprising to find that the two parish churches that Codussi built in Venice – Santa Maria Formosa and San Giovanni Crisostomo – were very different in character from his monastic works. Neither contains prominent references to Roman antiquity, or to the work of Brunelleschi or Alberti, but both are rooted in the Byzantine traditions of the Venetian lagoon.

Malipiero’s diaries tell us that the foundation stone of the new church of Santa Maria Formosa was laid in 1492, following the design of ‘Mauro Bergamasco’ (fig. 76). The building was substantially complete by the time of Codussi’s death in 1504. This church, which stands on one of the largest and most attractive campi of the city, is unusual in

76 Santa Maria Formosa, by Mauro Codussi, begun 1492; view of rear apses
that it is almost free-standing. Perhaps the challenge of providing a structure that would look effective from all around and which could be entered from three sides encouraged Codussi to experiment with a centralized plan. De' Barbari's map of 1500 shows that during the Gothic period parish churches, like monastic ones, were usually longitudinal structures, but it also indicates that a number of small Veneto-Byzantine Greek-cross churches, like San Giacomo di Rialto (the only one that survives today), were still standing in the city as a direct source of inspiration. According to Francesco Sansovino's guide of 1581, the previous church of Santa Maria Formosa, built in the eleventh century, was modelled on the central core of San Marco. (Curiously, he makes no mention of the new church.)

Codussi's plan for Santa Maria Formosa shows remarkable dexterity and inventiveness (fig. 77). The church of San Marco, standing as it does only a few minutes' walk from Codussi's church, is undoubtedly the chief source of inspiration for the Greek-cross plan, with its three apsed chapels at the east end, its slightly elongated triple nave and its great central dome over the crossing. The church was badly damaged in the First World War, when a bomb destroyed the whole of the roof, and during the repairs the structure was considerably altered. The dome was rebuilt without the high drum that appears in earlier views, and round windows were inserted in the vaults of the nave to replace the windows in the drum. How the building was originally lit is not clear, for the
church had already been reconstructed after an earthquake in 1668.\textsuperscript{57} Almost certainly it was fairly sombre, like other pre-Palladian churches in the city, most of which have since been provided with extra windows to improve the illumination.

The ambiguity between the two main axes of the ground-plan is consistently exploited inside Santa Maria Formosa, since the worshipper was as likely to enter from the sides as from the east end (fig. 78). The unusually deep side chapels emphasize the cross axis, but this directional force is counteracted by the beautiful device of piercing the walls of these chapels with large biforate openings. To a person moving around the interior these apertures offer a series of constantly changing vistas between the various compartments of the church. Santa Maria Formosa was one of the Venetian churches that was visited annually by the doge, on the feast of the Purification of the Virgin.\textsuperscript{58} In response, Codussi produced a design that was especially effective to the participants of a moving procession.

We know little of Codussi's intentions for the exterior. The façade on the south side dates from the mid-sixteenth century, while the west façade and the campanile are both seventeenth-century constructions. But Codussi's three swelling apses at the east end, perhaps all the more expressive for their absence of decoration, certainly make a powerful impression on the passer-by moving through the campo (fig. 76). The siting recalls that of the venerable parish church of San Giacomo
dell’Orio, which also has an open, nearly centralized interior and three apses projecting into its campo (fig. 49).

Santa Maria Formosa was a prosperous parish, being among the most desirable addresses in the city. Thus the residents were able to secure a sizeable loan to finance the rebuilding of their church. By contrast the church of San Giovanni Crisostomo, which was rebuilt by Codussi in the same years, had fewer wealthy parishioners and also stood on a very cramped site. It is therefore not surprising that this church was rebuilt on a more modest scale. Funds for the project were raised by ten years of indulgences conceded by Pope Innocent VIII, after the old church had been damaged by fire. The new building was begun in 1497, and was more or less finished at the time of Codussi’s death in 1504.59

Once again Codussi chose a centralized Greek-cross plan, but it was both smaller and simpler than that of Santa Maria Formosa (fig. 79). Inside the church a central dome is supported on free-standing piers, with barrel vaults over each arm of the cross, following the system of San Giacomo di Rialto. Once again, Codussi placed three apsed chapels at the east end, but the central one is flattened because of lack of space. The street façade is a much-simplified version of the façade of San Michele in Isola, here built in stuccoed brick defined by elongated Corinthian pilasters. The doorways – executed after Codussi’s death but possibly following his designs – are more emphatic in style, framed by fluted half-columns supporting heavy pediments.

At Santa Maria Formosa and San Giovanni Crisostomo Codussi showed how well the ancient Veneto–Byzantine Greek-cross plan suited the needs of parish churches, with their small congregations and intimate services. At Santa Maria Formosa the choice of plan was further justified by a long-established tradition (not universally applied) that Marian churches should be centrally planned, symbolizing the Virgin’s womb, as well as her crown in the case of round churches. But apart from these practical and iconographical considerations it is now recognized that the return to the Greek-cross church plan, which Codussi pioneered at the end of the fifteenth century, was part of a much broader Venetian interest in Byzantine culture at this time.60 As already mentioned, in 1468 Cardinal Bessarion of Trebizond had bequeathed to the city his valuable collection of manuscripts, which was particularly rich in Greek codices; and this bequest helped to stimulate a renewed interest in Byzantine studies among the scholars of the city. This is reflected by the large number of Greek texts printed at the famous press established in Venice by Aldo Manuzio in 1494. Painters, too, sought to emulate the art of Byzantium in works such as the madonnas of Giovanni Bellini, some of which adopt the conventions of icon painting. For the Venetians, with their ancient links with the Eastern empire, the Byzantine heritage had vivid classical connotations, just as Rome symbolized the world of antiq-
uity elsewhere in Italy. The fact that Alberti’s treatise on architecture, *De re aedificatoria*, recommends the central plan for churches may also have helped to justify the return to Greek-cross plans in Venice. Although the treatise refers to polygonal or circular plans, Alberti himself had used the Greek-cross plan for his church of San Sebastiano in Mantua, begun in 1460.

Codussi’s secular work shows the same kind of inventiveness, providing completely fresh solutions to old problems. When the Scuola Grande di San Marco burned down in 1485, a substantial grant towards the cost of rebuilding was provided by the Senate because of the State’s loyalty to Saint Mark. This offered a splendid opportunity for the architects involved (fig. 80). The old foundations were reused for the sake of economy, so that the main areas for innovation were the façade and the staircase. The first builders appointed were Pietro Lombardo and Giovanni Buora, but after a disagreement with the Scuola officials they were released from their duties. Codussi is first recorded as proto, or master of works, in 1490. By 1495, when his salary was discontinued, the new building must have been largely completed.61

The Lombardi–Buora team was certainly responsible for the lower order of the façade with its ornate relief sculpture, intricately carved with
flower and foliage patterns, and its coloured marble inlays (fig. 43). The perspective scenes on either side of the two doorways were executed by Pietro's son Tullio. The effect of this charming device is naïve rather than impressive, for the illusion only works from a certain viewpoint, whereas the space of the campo in front of the Scuola allows any number of possible approaches.

It was left to Codussi to give coherence and dignity to the façade, just as he had done at the church of San Zaccaria when he took over the building after the death of Antonio Gambello in 1481. He was probably responsible for the bold triangular and segmental pediments over the piano-nobile windows of the Scuola. The row of lunettes along the roofline displays one of Codussi's favourite motifs, recalling the great lobes on the façades of San Michele and San Zaccaria. Here the lunettes are multiplied in number as a conscious reference to the profile of the church of San Marco, which shares the same titular saint as the Scuola.

Codussi is usually credited with the invention of the elegant double-branched staircase which led up to the great salone. This staircase was destroyed under Austrian rule in 1819, when the Scuola was converted into the civic hospital, but has now been reconstructed on the basis
of incomplete evidence of its former appearance. In fact, the Scuola had planned a double-branched staircase as early as 1486, well before Codussi's involvement. 62 Nearby precedents that could have suggested the idea to the Scuola officials were the exterior double-branched staircases of the Fabbriche Vecchie di Rialto (destroyed by fire in 1514 but visible in de' Barbari's map of 1500) (fig. 87) and the Palazzo dei Trecento in Treviso. 63 But it was left to Codussi to implement the idea.

As we have seen, at this date all staircases of any importance in Venice were still external structures. The innovation of a covered staircase not only gives better protection from the elements, but also makes the experience of mounting the stairs more dramatic. It ensures that the attention of the person ascending is not allowed to wander, but is focused on the summit of the staircase. At San Marco the top landing, which leads directly into the great upper hall of the Scuola, is emphasized by a sail-vaulted dome and by a flood of light from a large biforate window.

In view of the sad destruction of the double staircase at the Scuola di San Marco, we are fortunate that a second example of the same type still survives (fig. 81). In 1498, in the competitive spirit so typical of scuola patronage, the Scuola Grande di San Giovanni Evangelista employed Codussi to erect a double-branched staircase, similar to that of San

80 (facing page) Scuola Grande di San Marco, rebuilt after the fire of 1485, begun by Pietro Lombardo and Giovanni Buora; completed by Mauro Codussi between 1490 and 1495

81 (left) Scuola Grande di San Giovanni Evangelista, double staircase by Codussi, begun 1498
Marco, on a newly acquired piece of land alongside their existing building. As at San Marco, the two converging ramps provide access from separate land and water entrances. Codussi ingeniously exploited the oblique angle in the wall of the Scuola di San Giovanni, where the two flights meet, by widening each flight towards the top; but by careful manipulation of the perspective of the cornices and balustrades he concealed this fact. As a result the top landing is more spacious and imposing than that of San Marco. A hemispherical cupola is supported on four broad arches, decorated with classical rosettes and resting on paired, free-standing columns at each corner of the landing. As in the San Marco staircase, a mirror image of the opposite flight is revealed as one climbs the steps, but since the ascent is much less steep the effect is already apparent at the bottom landing.

Just as Codussi added rich new dimensions to scuola and church architecture in Venice, so, too, he rejuvenated long-established Venetian traditions of palace building. His greatest opportunity in this field was the commission for a new palace for the wealthy patrician Andrea Loredan at San Marcuola, now usually called the Palazzo Vendramin-Calergi (fig. 82). The design is generally attributed to Codussi for stylistic reasons, but the fact that Andrea Loredan was a generous benefactor and protector of the new church of San Michele in Isola makes the authorship of this palace quite convincing. Like Marco Zorzi, who employed Codussi to build his new palace at San Severo, Andrea Loredan was one of a circle of nobles, united by their involvement with the Camaldolese monastery, who adopted Codussi as their favourite architect. Although Andrea began to purchase extra land on the site in 1481 the palace does not appear on de’ Barbari’s map of 1500. Building work seems to have begun as late as 1502, and may not have progressed far before Codussi’s death two years later. However, Priuli’s diaries in 1509 imply that the building was by then complete, so the patron was probably lucky enough to have finished most of the work by the beginning of the Cambrai wars. He himself died in battle in 1513.

The palace, now the winter home of the Casinò of Venice, has had a long series of famous owners and an eventful history. In 1581, the year in which Francesco Sansovino described it as one of the four finest palaces in Venice, Andrea’s heirs sold it to the duke of Brunswick. In 1589 it passed to Vettor Calergi, a member of a wealthy family from Crete. In 1658 the Senate decreed that the palace be demolished and its owners banished after three young Calergi brothers had brutally murdered a fellow noble, but the building was reprieved because of its exceptional merit. In 1883 Wagner died there while a guest of the duke of Chambord who owned the palace at that time.

Francesco Sansovino based his admiration for the Loredan palace on its size and nobility. This was the first Venetian palace façade in which
the classical orders expressed the whole structure. The three superimposed Corinthian orders support their entablatures without apparent need of support from the wall surfaces. The choice of pilasters on the water storey, fluted columns on the piano nobile and smooth columns on the second floor explains the relative importance of each floor, using the most ornate form for the principal storey. The idea of articulating a complete façade with the classical orders derives from Alberti, whose Palazzo Rucellai in Florence has three superimposed pilaster orders. The huge classical cornice, too, was probably inspired by that of the Palazzo Rucellai. The biforate, round-arched windows surmounted by oculi, a favourite motif of Codussi’s, must also have been suggested by the windows of Florentine early Renaissance palaces such as the Palazzo Medici and the Palazzo Rucellai. As in the case of the Palazzo Rucellai, the façade was added to the front of an existing structure, but Codussi took careful account of the needs of the traditional tripartite plan. As we have seen, however, because of the local glass industry and the need to admit light deep into the buildings, windows were by tradition much larger in Venice than in Florence. Enlarging the biforate window
type, Codussi made the form more vigorous and expressive than its Florentine prototype.

With typical ingenuity Codussi applied the lessons of Alberti to the traditional Venetian tripartite palace façade. The three windows in the middle of the two upper storeys light the great central halls or porteghi, while the paired columns frame the windows of the smaller rooms on either side. As stated, the façade was added on to the canal side of an existing structure. The whole palace is faced in Istrian stone, and although rare oriental coloured marbles and porphyries are used freely to indicate the wealth and prestige of the owner, Codussi characteristically did not allow the coloured decoration to play a dominant role and thus to detract from the sober dignity of this astoundingly mature classical façade.

By about 1500 Codussi must have been recognized as the most talented architect in Venice, even outside his inner circle of patrons. For this reason, and on stylistic grounds, he is usually thought to be the author of the Torre dell'Orologio or clock tower, which was erected in Piazza San Marco over the entrance to the Merceria (the street leading to the Rialto) between 1496 and 1500 (fig. 84). The side wings, which do not appear on de' Barbari's map of 1500, were probably added soon afterwards (fig. 83). 69
This monument plays the important role of providing the focal point in the view of the Piazzetta seen from the lagoon. It also indicates which of the numerous arches on the north side of Piazza San Marco leads into the principal street of the city. The theatrical possibilities of arches in public architecture had already been demonstrated in the Porta della Carta and the Arco Foscari of the Palazzo Ducale, which define the main entrance of the palace for processions and other ceremonial purposes. The drawings of Jacopo Bellini and the paintings of Carpaccio, too, show a Venetian awareness of how arches and towers, like stairs, could add to the dramatic qualities of an architectural setting. There was a long-established tradition in Venice of placing arches over the entrances of streets or courtyards, such as that over the rio end of the Calle del Paradiso (fig. 34), as a mark of the landlord’s ownership. Similarly, the public must have interpreted the huge winged lion, guarding the Torre dell’Orologio from aloft, as a symbol of the political authority of the Republic.

But the fundamental inspiration behind the conception of the Torre dell’Orologio seems to have been, once again, Alberti. At this time the
only towers in Italian cities were *campanili*, defensive towers in fortifications and the tower homes of feudal lords. Yet in his architectural treatise, *De re aedificatoria*, Alberti describes towers, bearing sundials or wind vanes, as one of the finest attributes of a city. (He was, of course, referring to famous classical prototypes such the Pharos of Alexandria and the Tower of the Winds in Athens.) Towers, both square and round, Alberti declares, should be built in tiers, each one articulated by the classical orders. Square towers should be six, or in some cases four, times as high as their width. The Torre dell’Orologio, which is exactly four times as high as its width (excluding the side wings), fits Alberti’s recommendations so closely that the links can hardly be a coincidence (fig. 84). Even the siting of the tower seems to reveal a conscious attempt to turn Venice into an Albertian ideal city. According to Alberti,

...nothing can be a greater Ornament either to Squares or to the Meeting of several Streets, than Arches at the entrance of the Streets; an Arch being indeed nothing else but a Gate standing continually open ... A very proper Situation for an Arch is where a Street joins into a Square, and especially in the Royal Street, by which name I understand the most eminent in the City.

In other words, the Torre dell’Orologio, bearing its great painted clock-face decorated with the signs of the zodiac and standing over the entrance to the Merceria, functions both as an Albertian classical tower and as an archway over the entrance to the main street of the city.

As we have seen, Codussi was not the only designer who attempted to introduce classical forms into Venetian architecture in the second half of the fifteenth century. Architects in the city had turned to a wide variety of sources in their search for a new classical idiom. Gambello’s Porta dell’Arsenale was an explicit allusion to the Roman arch at Pola. The Byzantine church of San Marco and the Romanesque baptistery of Florence inspired aspects of the Arco Foscarini and the church of the Miracoli. The friars of San Giobbe, who had close links with Siena, imported Tuscan ideas in rebuilding their church. Pietro Lombardo’s workshop evolved a distinctive classical style, characterized by the profuse application of delicate *all’antica* relief sculpture and by favourite motifs such as free-standing columns on high bases and huge lunettes with tiny scrolls at each corner.

Why, then was Codussi’s contribution outstanding? He, too, drew on such classical sources as were available to him, and obviously had some knowledge, whether direct or indirect, of Tuscan early Renaissance architecture. He also borrowed freely from the Byzantine heritage of Venice and Ravenna. But he used classical forms with a far greater understanding of their underlying logic than any of his contemporaries in Venice. And he showed great ingenuity in applying these classical prin-
principles to the established building types, which had evolved to suit the city’s physical conditions and the specific needs of Venetian society. There can be no doubt that Alberti’s treatise on architecture was the fundamental discipline behind Codussi’s designs. Whether or not he himself ever consulted a manuscript of the treatise is not known, but Codussi’s circle of patrons, connected by their links with the Camaldolese monastery at San Michele in Isola, shared a keen interest in Alberti’s ideas, which they would certainly have passed on to their architect. Codussi was gifted with exceptional artistic imagination and visual sensitivity, but it was through his knowledge of Alberti that he was able to give coherence and dignity to the products of his great natural talent.

Architecture during the Wars of the League of Cambrai

Mauro Codussi died in 1504 leaving behind a series of highly original and beautiful buildings but no name. To a certain extent, the oblivion into which this great architect retreated for almost four centuries is due to the fact that two decades of acute political and financial crisis followed his death. The resulting constraints prevented many of Codussi’s ideas from being taken up until after his identity had already been forgotten.

By this time the territorial ambitions of the Venetian Republic had finally exceeded her ability to make conquests and hold the lands she seized. One by one her allies deserted her, and in 1508 they joined forces under Pope Julius II in a pact called the League of Cambrai, to seize Venetian possessions, supposedly in preparation for a great campaign against the Turkish infidel. In the following year the Venetian troops were heavily defeated at the battle of Agnadello, and even Padua was occupied by imperial troops. This was the most serious threat to the survival of the Republic until its final collapse in 1797. However, a huge military effort by the Venetians in the wars that followed allowed a partial recovery. In the peace settlement of 1517 Venice regained control of most of her mainland possessions except for the most recent conquests, but the political security of the state was not finally re-established until the Peace of Bologna in 1529.72

The vicissitudes of the period are chronicled in vivid detail in Sanudo’s famous diaries, which he kept continuously from 1496 until 1533, and in the diaries of the banker Girolamo Priuli. Economic hardship was acute. Two of the most important Venetian banks had already failed in 1499 under the strain of military activity on the terraferma. During the Cambrai wars the wealthy Venetians had to pay out huge sums in taxes, public loans and voluntary gifts. No interest was paid on existing government bonds, and income from terraferma property ceased abruptly.
Hardly surprisingly, only the most indispensable or richly endowed building projects were carried out during the period between 1509 and 1529. Architecture was hit harder than painting or sculpture. Not only were the costs much higher, but also, since major buildings took a number of years to complete, an atmosphere of security and public confidence was an essential precondition. Financial pressures alone did not always inhibit the launching of great architectural schemes. In Rome in the same period Pope Julius II began two of the most ambitious projects of all time – Saint Peter’s and the Cortile del Belvedere – although the papal budget was severely strained by his warfaring activities. But in Venice, hammered by defeats rather than exalted by victories, there was no scope for such optimism.

The survival of the Republic could only be ensured if public morale were maintained at a high level. Since the buildings of Piazza San Marco and the Rialto – the political and economic centres of the city – were among the principal expressions of the viability of the state, these had to be kept in good order even during periods of crisis. Thus when, in June 1512, several of the houses on the north side of Piazza San Marco were badly damaged by fire, the Procurators of Saint Mark, who owned the property, made the bold decision to demolish and rebuild the whole
north wing ‘in order to make it very beautiful for the glory of the land . . . in spite of the war’. 73

According to Sanudo, a model was submitted in 1514 by a Tuscan architect called ‘il Celestro’. The building was erected by Bartolomeo Bon, who had been proto to the Procurators of San Marco since 1505, assisted by Guglielmo dei Grigi, a stonemason from near Bergamo (fig. 85). 74 In his guidebook to Venice of 1581 Francesco Sansovino named Bon as the architect of the new wing. 75 However, the proto may have followed il Celestro’s design, at least in part. Bon was a relative of the two older masons Giovanni and Bartolomeo Bon who were widely employed in Venice in the mid-fifteenth century.

The new building was completed by 1526, except for the extra bays on the west side of Piazza San Marco which were added by Jacopo Sansovino in the 1530s (and demolished in the Napoleonic era). It consists of an arcade containing shops, surmounted by two storeys of apartments, all of which were let out to tenants by the Procuracy. According to an inventory compiled in 1569 the apartments were fairly expensive because of the enviable site. The annual rents ranged from 40 to 70 ducats. The shops and mezzanines were much cheaper, costing only 10–20 ducats, and were let to a variety of more modest tenants. Their
occupations in 1569 included those of smith, glazier, cobbler, engraver, tailor, spice merchant, painter, cutler and old-clothes seller. A series of twelve small courtyards admitted light into the centres of the houses, while the streets from the north entered the Piazza through three sottoporteghi. The building is now known as the Procuratie Vecchie, so called to distinguish it from the Procuratie Nuove, the south wing of the Piazza.

The north wing of Piazza San Marco was the first major public building in Venice to be erected in a purely classical style. Once again a local Veneto-Byzantine model rather than a true monument of antiquity provided the main inspiration. The new wing adhered closely to the form of the previous building on the site, probably begun under Doge Pietro Ziani (1205–29), which we know from Gentile Bellini's painting and de' Barbari's engraved view of 1500 (figs 17 and 83). The only important change to the earlier scheme was the addition of an extra storey, in order to increase the rent income of the Procuracy. The design preserves the rhythm of Ziani's building, with two window bays over each archway of the portico; but the architectural language is updated. Here the rooftop crenellations no longer appear defensive, and the tall stilted arches of the earlier wing are replaced by more classical semicircular arches. Simple Tuscan piers are used to support the ground-floor arches, with fluted Corinthian columns on the two upper storeys (fig. 86). The whole composition is restrained and well proportioned, with continuous horizontal string courses to counteract the repeated vertical accents. The intervention of the Tuscan architect Il Celestro may account for the competent handling of Renaissance forms; but according to the pattern that we see repeated over and over again in the history of Venetian architecture, the overall scheme clings to the local model that had already served the same functions efficiently for more than 300 years.

Less than two years after the fire in Piazza San Marco, the commercial centre of Venice was devastated by a great fire that overran almost the whole of the island of Rialto during a winter's night in 1514 (fig. 87). This fire broke out in bitterly cold weather, with icy winds fanning the flames. Fire fighting was almost impossible because the wells and canals were frozen over, and the blaze burned for twenty-four hours. The obliteration of the market area in the midst of the wars against the League of Cambrai was so damaging that some people suspected traitors of having started the fire.

The Rialto market had to be rebuilt as quickly as possible, in order not to cut off the city's income from trade. The State fully recognized the need to provide premises for mercantile activity. (Just nine years earlier they had quickly rebuilt the German merchants' centre, the Fondaco dei Tedeschi, when this building, too, was destroyed by fire.) In 1515 four projects for rebuilding the Rialto market were submitted by different architects, including a highly idealized plan by the
humanist architect from Verona, Fra Giocondo, for a symmetrical rectangular complex surrounded by canals. This scheme is known from the long description in Vasari’s *Lives of the Artists*. The committee of patricians who judged the designs, however, chose the far more conservative solution by the local architect Antonio Scarpagnino, which preserved most elements of the previous layout of the market.79

The story is remarkably similar to that of the Great Fire of London in 1666. In each case ambitious replanning schemes were submitted, by Fra Giocondo in Venice and by Christopher Wren in London; but in each case the legal problems associated with redesigning the devastated areas proved prohibitive, for every property owner eagerly reclaimed his own plot of land. Both the Rialto and the City of London were rebuilt with their former street plans more or less unchanged, though measures were taken in both cities to make the buildings less vulnerable to fire.
Scarpagnino’s market buildings are strictly functional, with virtually no ornament apart from continuous horizontal string courses and dentilled cornices. The arcades, supported on solid piers, were rebuilt with vaults rather than with wooden beamed ceilings to reduce the risk of fire. As in the case of the Procuratie Vecchie, the need for economy, combined with a certain public diffidence induced by the Cambrai wars, led to the choice of a very traditional model for the new Rialto market.

The religious orders were perhaps less directly affected by the war emergency than the patrons of public or private buildings. It seems that the sense of fear that pervaded the everyday world did not prevent the people of Venice from making charitable donations, hoping to ensure their safety in the after-life at least. Even in the monastic institutions, however, it is certain that a shortage of funds caused considerable delays in building work. Among the wealthiest of the religious orders were the Augustinian Regular Canons (not to be confused with the mendicant Augustinian friars). Shortly before the onset of the Cambrai wars they began to rebuild two of their Venetian churches, one on the island of Santo Spirito in Isola and one at the Rialto end of the Merceria. Of the former we know very little. Only two of its altars were consecrated before the League of Cambrai. The rest of the church was erected later by Jacopo Sansovino, but was completely obliterated in the Napoleonic era. The latter was the fine church of San Salvador, begun in 1507 by the local architect Giorgio Spavento and completed in 1534. After Spavento’s death in 1509 the work was supervised first by Tullio Lombardo and, after 1532 when Tullio himself died, by Sansovino.

San Salvador is one of the most imaginative and successful designs in the history of Venetian ecclesiastical architecture (fig. 89). Spavento took as his starting point the traditional Byzantine centralized plan, with a large central dome and four smaller domes at each corner. Amid the renewed enthusiasm for Greek scholarship, this type of plan had been revived in Venice at the end of the fifteenth century by Codussi and his contemporaries. By joining three of these domed spaces together, Spavento created the long spacious type of nave that suited the needs of the religious orders so much better than a small, centralized structure. In the choice of the three apses at the east end he adhered to Veneto-Byzantine tradition, yet by lengthening the side arms of the easternmost Greek cross to form transepts, he gave the church a cruciform plan at the same time.

With its succession of three soaring domes, brilliantly lit by lanterns above, and its great piers defined by pilasters on high bases, the interior of the church is grand and imposing, even if some of the details of the articulation have not been clearly organized (fig. 88). Originally the church must have been much darker, for the lanterns in the domes were not added until 1574. In the later sixteenth and early seventeenth
88 (above) San Salvador, begun by Giorgio Spavento, 1507; continued from 1509 by Tullio Lombardo; completed by Jacopo Sansovino, 1532–4. Interior

89 (right) San Salvador, plan (from L. Cicognara, A. Diedo and G. Selva, Le fabbriche e i monumenti cospicui di Venezia, 1, Venice, 1838)
centuries, under the influence of the Counter Reformation’s desire for
greater lucidity in religious buildings, paintings, music and liturgy, addi-
tional windows were inserted into many Venetian churches to improve
the illumination. This fact, however, should not detract from Spavento’s
own achievement. With its Istrian-stone detailing and whitewashed
walls, the church of San Salvador was surely never sombre.

The *scuole grandi*, like private individuals, were taxed in wartime.
They also had the additional burden of supplying and paying *galeotti*
(oarsmen) for naval campaigns. In the Cambrai wars, which were
fought chiefly on land, relatively small sums were levied from the *scuole*,
but their revenues were hit, too, by the non-payment of interest on
government bonds, and by the shortage of ready cash in private hands.

The one *scuola grande* that actually managed to increase its wealth
during this period was the recently founded Scuola di San Rocco. After
the defeat at Agnadello in 1509 San Rocco was required to pay a levy
of only 100 ducats, just half as much as the other *scuole*, ‘because it is
poor’. Yet during the wartime years between 1509 and 1516 as many as
sixty new endowment trusts were set up in its favour, including five major
bequests.

The Scuola di San Rocco had been instituted in 1478, during an epi-
demic of plague, under the patronage of the saint who was supposed to
give protection from outbreaks of pestilence. In 1485 the saint’s body
was brought to Venice from Germany, and from this time onwards the
cult of San Rocco in Venice grew rapidly. By 1489 the Scuola was large
enough to be admitted to the ranks of the *scuole grandi* by the Council
of Ten. In the same year a church dedicated to San Rocco was begun on
a site leased from the Franciscan friars behind the rear apses of the Frari.
The architect of the church, since much altered, was the *proto* to the
Procurators of Saint Mark, Bartolomeo Bon.

In 1516 the same architect was appointed *proto* to the Scuola di San
Rocco, which had by now raised sufficient funds to begin a grand new
building next to the church (fig. 90). The foundation stone had already
been laid in the previous year. After a disagreement in 1524 Bon resigned
his position, but in 1527 the established local architect, Antonio
Scarpagnino, was appointed to replace him.

In 1527 the Scuola di San Rocco was still one of the two poorest of
the *scuole grandi*, and regretted having spent so large a proportion of
its revenues on building rather than investing for the future. However,
this was the year of another severe outbreak of plague. As a result, the
number of private donations to the Scuola funds, from people hoping to
protect themselves from the disease, rose to its highest level ever, and
gave the impetus to continue the building. The main structure seems
to have been largely complete by the time of Scarpagnino’s death in 1549.
Soon the Scuola had sufficient resources to employ Tintoretto to paint
the remarkable series of canvases that decorates the interior (fig. 92). In his guidebook of 1581 Francesco Sansovino marvelled at the wealth of the Scuola di San Rocco, now only a century old yet already the richest of all the Venetian confraternities.86

The Scuola di San Rocco is certainly the most flamboyant building erected in Venice in the aftermath of the Cambrai wars. No expense was spared on its elaborate Istrian-stone façade with its profusion of richly carved detail and its inlaid panels of precious marble. None the less, the overall design reflects something of the way in which the horizons of Venetian architects had been limited to the Veneto during the wartime years. In the richness and complexity of its stonework and the choice of nearby all'antica references, this is a uniquely Venetian building.

The asymmetrical arrangement (fig. 90) reflects the disposition of rooms inside (fig. 91), with the huge upper and lower halls occupying the three bays on the left and the smaller albergo, or meeting room,
the two bays on the right. It is not difficult to distinguish the earlier portions built under Bon’s direction from those erected afterwards by Scarpagnino. Bon must have been responsible for the three lower windows, which adopt the form introduced to Venice by Codussi. The portal at the right-hand end of the façade, crowned by a heavy lunette, is similarly conservative in style – doorways of this type had already been popular in Venice for half a century. Bon must also have been responsible for the layout of the interior with its traditional, colonnaded lower hall.

When he took over in 1527 Scarpagnino tried to bring the façade in line with more modern trends in architecture, but his understanding of classical principles of design was less than his knowledge of individual motifs. The great pedimented left-hand portal reflects a celebrated Roman triumphal arch, the Arco dei Gavi in Verona. The use of a single broad pediment to crown each pair of windows on the upper storey also has a respectable nearby antique precedent in the Porta dei Borsari in Verona. Although the free-standing columns on high bases with their heavy projecting cornices emphatically command the raking view of
the approach, the intricately carved garlands that swathe them seem to distract attention from their role as bold framing elements. Moreover, Scarpagnino made no attempt to disguise the fact that the bay over the main entrance is wider than the other four bays.

One cannot deny that the façade, with its picturesque detail, virtuoso stone-carving, rich array of marbles and high relief, is eye-catching and impressive from any approach. This rhetorical ostentation reflects not only the wealth of the Scuola di San Rocco itself, but also the highly charged competitiveness between the various Venetian scuole grandi. Nevertheless, a certain lack of coherence shows that Venice was more than ready for the importation of new talent. If the architects of the Scuola di San Rocco showed some knowledge of the antiquities on Venetian territory, they had only limited understanding of the Renaissance concepts of clarity and harmony.
Piazzetta di San Marco from the south-east
The effect of the League of Cambrai wars on Venetian architects of the period was not only to cause lack of employment and financial hardship, but also to stifle artistic imagination. In the state of economic uncertainty that prevailed for almost two decades after the Venetian defeat at Agnadello in 1509, only the most essential schemes could be implemented, using the most conservative models. But less expensive creative outlets could still be found. Some stonemasons and builders survived on repair jobs and smaller scale sculptural commissions (although Scarpagnino, one of the lucky ones, was forced to sell his stonemason’s workshop in 1517 because he was so busy with the rebuilding of the Rialto market after the fire).¹ One of the few significant architectural achievements of the war years came not from a stonemason but from a Veronese Dominican friar, Fra Giocondo, whose audacious design for the new Rialto market (mentioned in the previous chapter) was rejected in favour of Scarpagnino’s cheaper alternative. Fra Giocondo, a learned humanist, proficient engineer and respected architect, turned his creative impulses to preparing a beautiful illustrated edition of the Latin text of Vitruvius’ *De architectura* which was published in Venice in 1511. This was the first scholarly printed edition of the only architectural treatise to survive from antiquity. It preceded Cesariano’s Italian translation, published in Como, by a decade. Fra Giocondo was well qualified for the task. He was not only a classical scholar, but had also spent some years studying the antiquities of Rome as a young man. The preoccupation with the theories of Alberti among Codussi’s circle of patrons had prepared the ground for the reception of Vitruvius’ ideas in Venice, and Fra Giocondo’s edition helped to sustain an interest in architectural theory during the hiatus in building activity caused by the Cambrai wars. More important, it allowed Venetians to give thought to ways of reviving ‘authentic’ ancient Roman forms of building, as codified by Vitruvius, in their own city.

The Venetian Republic had long aspired to be the true successor to ancient Rome, a claim known to historians as ‘the Myth of Venice’.² The constitution, modelled on that of the Roman republic, was considered
to be a direct continuation of the civilization of antiquity, because of the city’s supposed foundation by refugees at the time of the barbarian overthrow of the Roman empire. Moreover, the apostolic church of San Marco was thought to be a worthy equivalent to the basilica of Saint Peter’s in Rome. As we have seen, in the later fifteenth century Venice was again turning to Byzantium (Emperor Constantine’s new imperial capital) for artistic and cultural inspiration. But the search for a visual manifestation of the Serenissima’s claim to be the ‘New Rome’ was to lead eventually to a desire to emulate Rome itself.

The Sack of Rome by imperial troops in 1527 catalysed this transformation in more ways than one. First, the devastation and political humiliation in Rome itself after 1527 provided a psychological incentive to create a ‘New Rome’ elsewhere. Second, the fact that the Papal States had long been political rivals of Venice meant that Rome’s demise indirectly boosted Venetian self-confidence. Third, the Sack coincided with the revival of Venetian fortunes after the Cambrai wars, to be ratified at the Peace of Bologna in 1529. And finally, the Sack of Rome, scattering the papal city’s artists and architects throughout Italy, brought to Venice the renowned sculptor and architect Jacopo Sansovino. At about the same time the Veronese architect Michele Sanmicheli returned to his homeland from central Italy, and Sebastiano Serlio arrived in Venice from his home town of Bologna. These three architects had the credentials to provide Venice with the new Roman idiom that would symbolize the recovery from the traumatic war years and from the epidemics and famines of the late 1520s. Supported by the culturally ambitious doge Andrea Gritti (1523–38), they were to formulate the architectural expression of ‘the Myth of Venice’.

**Sebastiano Serlio (1475–1554)**

The cheapest, quickest means of communicating knowledge was, of course, printing; and Serlio immediately began to publish engravings of the classical orders, for which the Senate granted copyright in 1528. Meanwhile he started work on his own architectural treatise. By this time Venice not only had a tradition of producing beautifully illustrated printed books, but also boasted an intelligentsia who read architectural treatises avidly. Serlio’s first book, book IV on the orders of architecture, was published in Venice in 1537. The next volume, book III on the buildings of the ancients, appeared three years later. Serlio then moved to France, where the following volumes of his work were issued, but he had already provided Venice with the essential rudiments of ancient Roman architecture.
Serlio's copiously illustrated treatise offered the city a completely new range of visual ideas as well as his own version of the classical 'grammar' of architecture. In the volume on the orders, in addition to providing details of his recommended proportions for columns, bases, capitals and architraves, he illustrated examples of imaginary doorways, façades, arcades and fireplaces using the various different orders. The book is not, however, a textbook in what we now see as classical orthodoxy, for the designs are distinctly Mannerist in style. Bizarre touches such as chimneypieces supported by caryatids with huge clawed feet, boldly rusticated columns and flaming urns are interspersed with the more conventional classical vocabulary. As he acknowledged in the introduction, Serlio was heavily indebted to the ideas of his master Peruzzi, himself a notable Mannerist architect.7 Nevertheless, some of the schemes, such as the Venetian palace façades with their tripartite arrangement and flamboyant chimneys, were obviously inspired by Serlio's own personal experiences in the city (fig. 94). These Venetian projects in turn were to be extremely influential in Venice – the 'serliana' windows lighting the central halls became a favourite motif in sixteenth-century Venetian palace design.
Serlio’s volume on the buildings of antiquity gives plans, sections and elevations, as well as architectural details, of the principal monuments of both ancient and modern Rome. The main arches, tombs and temples of antiquity are shown alongside Bramante’s Tempietto and Cortile del Belvedere, various projects for Saint Peter’s, Raphael’s Villa Madama and Giuliano da Sangallo’s palace for the king of Naples. Serlio concludes with an intriguing passage on Egyptian architecture, introduced by the following observation on ancient Greece:

It is true that to our eyes the things of the ancient Romans are wonderful. However, anyone who could have seen the buildings of the Greeks – which have by now all disappeared and many of whose spoils adorn Rome and Venice – would perhaps say that they surpassed those of the Romans. 

Serlio says that he gleaned his knowledge of Egyptian architecture from conversations with Cardinal Marco Grimani. His comment reminds us, however, that despite their trading activities in the eastern Mediterranean and their deep-rooted respect for Greek culture, Venetians were still largely ignorant of the ruins of ancient Greece. It was to Rome that their sights now turned.

Sansovino (1486–1570) and Sanmicheli (c.1487–1559)

Serlio himself built almost nothing in Venice, but his contemporaries Jacopo Sansovino and Michele Sanmicheli were both soon so fully employed that they spent the rest of their working lives in the Veneto. Like Serlio, both had studied the antiquities of Rome at first hand and were well acquainted with recent developments in architecture in central Italy. During the first two decades of the sixteenth century the centre of gravity of the artistic life of Italy had shifted from Florence to Rome. The munificent and imaginative patronage of Pope Julius II (1503–13) and Pope Leo X (1513–21) had drawn the most gifted painters, sculptors and architects of Italy to the papal court. Meanwhile archaeological excavations in Rome proceeded apace. In this stimulating atmosphere both Sansovino and Sanmicheli reached their artistic maturity.

Sansovino, whose real name was Jacopo Tatti, was born in Florence. In his youth he was apprenticed to the sculptor Andrea Sansovino and took his name. Around 1506 he went to Rome for the first time and was introduced into papal circles by his compatriot Giuliano da Sangallo. There he came into contact with such great artists as Bramante, Raphael and Michelangelo. Although he began two churches in Rome and built a palace for the wealthy banker Giovanni Gaddi, he was still primarily a sculptor when he fled to Venice after the Sack in 1527. In that year
the painter Lorenzo Lotto described him respectfully in a letter as 'second only to Michelangelo'.

Sanmicheli's artistic origins were rather different. He was born in Verona into a family of professional architects. Both his uncle and his father were architects, and although one of his brothers became a scholar and the other a priest, his cousin Polo and his nephew Gian Girolamo also entered the building profession. Like the Sangallo family in Florence, but unlike such great architects as Bramante, Raphael and Michelangelo — or indeed Sansovino — Sanmicheli did not turn to architecture from painting or sculpture, but had a highly professional technical training.

Because their backgrounds were so different, Sansovino and Sanmicheli channelled their energies in different directions in the Veneto. Although they had been subjected to similar artistic influences in central Italy, their approaches to architectural problems remained quite distinct throughout their careers. They certainly knew each other and were to some extent influenced by each other's work. They even shared patrons — for instance, the Venetian patrician Zuanne Dolfin, who was podestà or chief administrator in Verona in 1532–3, commissioned a new portal for the Palazzo del Podestà from Sanmicheli, and later, after his return to Venice, employed Sansovino to rebuild his family palace.

A clear line of demarcation divided their areas of specialization, however. Following the death of Bartolomeo Bon in 1529, Jacopo Sansovino was employed as proto, or chief superintendent of buildings, to the Procuratia de Supra, the body that owned most of Piazza San Marco and was responsible for the upkeep of the church. In the same year Sanmicheli entered the employment of the Venetian Republic to fortify Legnago, the mainland town on the River Adige south-east of Verona. Like his fellow Veronese, Fra Giocondo, who had worked for the Venetian government on the fortification of Treviso and Padua during the Cambrai wars and on the defence of the lagoon, Sanmicheli had a high reputation as a military architect. He had already been employed by Pope Clement VII on improving the defences of Parma and Piacenza. Vasari recounts that, because of his special interest in fortifications, Sanmicheli went to Treviso and then to Padua soon after his return to the Veneto to inspect the new fortresses. But the Republican authorities were suspicious of his behaviour and arrested him. Only when assured of his good faith did they begin to make use of his know-how themselves. Sansovino, by contrast, seems to have been rarely consulted on military matters. He lacked the technical expertise of Sanmicheli, and tackled engineering problems by a combination of instinct and trial and error. Sometimes he was brilliantly successful, as on his arrival in Venice when he fortified the great domes of the church of San Marco by encircling them with iron rings. On other occasions the results were
disastrous. For example, when the first bay of his new Library collapsed in 1545, he was even imprisoned overnight and had to repair the damage at his own expense. Later the roof of the church of San Giuliano collapsed while he was having the façade rebuilt.\textsuperscript{17}

Sanmicheli was put in charge of the military defences of the whole Venetian Republic in 1535.\textsuperscript{18} In this capacity he was employed by the Waterways authority until 1542, when a special magistracy was set up to take charge of the fortifications. Although he was based in his native city of Verona, he travelled extensively throughout the Venetian Republic, attending to defences as far away as Corfu and Crete. The true ‘State’ architect of Venice was the proto to the Salt Office, which financed government building projects, such as the work in the Palazzo Ducale, using revenues from the salt tax. At this time the post was held by the local architect Antonio Scarpagnino, who died in 1549. As we have seen, the State always tended towards conservatism in its patronage. They even turned down Palladio when he applied for the same job in 1554.

As Serlio pointed out in the dedication of book iv of his treatise, published in 1537, the revival in Venetian architecture during the reign of Doge Andrea Gritti (1523–38) had been carried out chiefly by Sansovino, Sanmicheli and Scarpagnino together.\textsuperscript{19} Sansovino and Sanmicheli were not the first architects working in Venice who knew Roman architecture at first hand. Fra Giocondo had studied the antiquities of Rome, and his fellow Veronese, the architect and painter Giovan Maria Falconetto, had made several trips to Rome, as his buildings in Padua show clearly; but the opportunities of both these older architects were badly restricted by the effects of the war years. Doge Gritti’s reign provided the perfect atmosphere for architectural innovation. An enthusiastic patron of music and literature as well as the visual arts, Gritti was also a decisive leader who set Venice firmly on the road to recovery.\textsuperscript{20} His team of architects, united by a felicitous alliteration as well as by their common aim to restore the grandeur of ancient Rome on Venetian soil, was warmly supported not only by the doge himself but also by an inner clique of enlightened and influential patricians. In particular, two members of the Procuratia de Supra, Antonio Cappello and Vettor Grimani, were loyal supporters of both architects.

As military architect to the Venetian Republic, Michele Sanmicheli had many tasks. As mentioned, he was responsible for the defences of the terraferma, of Venetian possessions in the eastern Mediterranean such as Corfu, Crete and Cyprus, and, of course, of the city of Venice itself. He also worked for Francesco Sforza, duke of Milan, for some months in 1531, inspecting fortifications in various parts of Lombardy.

This was a period of rapid development in the art of fortification. The typical medieval defences – crenellated walls with towers over the gateways – deterred invaders by dropping missiles on them from above.
95  Fortezza di Sant’Andrea, by Michele Sanmicheli, designed 1535, begun 1543

96  Fortezza di Sant’Andrea, plan (from L. Cicognara, A. Diedo and G. Selva, Le fabbriche e i monumenti cospicue di Venezia, II, Venice, 1840)
This type of fortification, still visible in Venice in parts of the Arsenal, was made redundant by the introduction of gunpowder artillery, which could attack from much further away and demolish high vertical walls. As Vasari points out, Sanmicheli was one of the pioneers in the introduction of the angle bastion, a lower corner projection shaped like an arrowhead, from which modern weapons could be used to attack invaders at a considerable distance, while protecting the walls on either side by covering fire.21

One of Sanmicheli’s most impressive achievements in this field was the construction of a new fortress on the island of Sant’Andrea at the entrance to the Venetian lagoon, opposite the castle of San Nicolò di Lido (fig. 95).22 This fortress surrounded an earlier castle on the site, built in the reign of Doge Michele Steno (1400–13). In 1535 the Council of Ten approved Sanmicheli’s recommendation, warmly supported by Antonio Cappello who was savio alle acque at this time, to rebuild both castles. Sanmicheli duly provided models for the fortress of Sant’Andrea, but the Council of Ten vacillated, and it was not until 1543 that the go-ahead was finally given.23 Meanwhile Sanmicheli was dispatched to the Levant to attend to the defences there.

Although the Council of Ten was characteristically indecisive, the architect received loyal encouragement from the newly instituted magistracy in charge of fortifications, one of the two provveditori (magistrates) being Vettor Grimani. Considering the scale of the undertaking, the work proceeded with amazing speed. Sanmicheli himself must have visited the site regularly, for in 1545 he was awarded a special allowance to pay for his boat rides. The new Fortezza was largely completed by 1549 when the Council of Ten formally suspended work as an economy measure.24

As Vasari explained at length, the technical difficulties were formidable, but Sanmicheli overcame them with dazzling virtuosity. Only in recent decades has constant erosion by the sea begun to cause serious damage to the structure. A typical Vasarian anecdote describes how some critics predicted that the structure would collapse under the weight of its own artillery. To prove its safety a huge quantity of heavy artillery was brought from the Arsenal and fired simultaneously in the fortress: ‘The building, however, remained firm, establishing the reputation of Michele and confounding the objectors, who had caused such general alarm that pregnant women had left the city.’25

The plan of the Fortezza di Sant’Andrea shows how carefully the design was controlled by functional considerations (fig. 96). On the seaward side a low wall of rusticated Istrian-stone blocks forms a five-sided projection, the central side curved outwards. Casemates are distributed at intervals around the periphery, like caves at the water’s edge, reached by tunnels from the heart of the fortress. Sanmicheli incorporated the old castle into the new fortress to serve as a lookout tower,
the rest of the structure being as low as possible to increase its stability. An embankment at the back protected the fortress along the edge of a channel for bringing in supplies and ammunition. At the centre of the curved projection stands a massive rusticated Doric gateway, with imperious keystone heads over each of the three arches, standing guard like the lions’ heads over the casemates. The Istrian-stone blocks are left in their rough-hewn state, so that, in Vasari’s words, the fortress ‘seems cut from a single stone out of the solid rock’. Of course, this illusion is highly deceptive, for the Fortezza was not built on solid rock, but on lagoon sand and mud.

In the Renaissance, military architecture was not purely functional. It was also a vehicle for the imaginative use of conventional classical elements to express the might and status of the territory within. Sanmicheli succeeded in this in the Fortezza di Sant’Andrea, at least for Vasari, who wrote that it ‘equals in majesty, the most famous structures of the Romans’. The design of the triple-arched entrance combines the toughness of the Doric order with the roughness of raw stone. The metopes of the Doric frieze contain symbols of Venetian naval superiority, such as warships, and the winged lions of Saint Mark. At the corners, hefty square piers reinforce the half-columns, protecting the dark, cavernous entrance, lapped by the waves like the haunt of a mythical giant.

Sansovino received his first major commission in Venice for the rebuilding of the Zecca or mint in 1536, the year after Sanmicheli made his designs for the Fortezza di Sant’Andrea (fig. 97). These two buildings were curiously similar in function, and thus brought the styles of the two architects unusually close together. Both buildings had to be secure, fireproof and efficiently organized. Both symbolized aspects of the Venetian recovery – military in the case of the Fortezza, and economic in the case of the Zecca. Both were administered by the State, so that, although funds were ample, there was an element of instability caused by regular rotations of officers in the magistracies concerned and changing attitudes in the Council of Ten.

The new Venetian Zecca was financed in the most original manner, by the freeing of serfs in Cyprus at 50 ducats a head. The building was begun after the risk of fire and the huge demand for new coins caused by the economic boom had made the old mint almost unserviceable. The original design was for a two-storey building, in which gold was to be minted on the piano nobile for greater security, and silver on the ground floor. In 1539 an agreement was reached with the Procuratia de Supra, which owned a row of cheese and salami shops on the lagoon side of the mint, to incorporate these shops into the new structure, in order to allow more space for the gold foundries above. A courtyard at the back was surrounded by small workshops for minting, casting dies and storing coal, while the foundries were located in the front section of the
The Venetian Zecca, or mint, by Jacopo Sansovino, begun 1536; additional third storey begun 1558

building. A long hall separating these two parts joined the land and water entrances on each side, for the presence of the cheese shops made a front entrance impossible. A third storey was begun in 1558 to provide extra space and to protect the furnaces from the effects of direct sunlight on the roof, which made the heat inside intolerable. The building appears in its original state in two mid-sixteenth-century engravings (figs 98 and 100).  

Circumstances make it unlikely that Sansovino was consulted on the design of the weaker third storey, but certainly the two lower storeys form one of the architect’s most powerful and confident works. The problem he faced was how to convey a sense of impregnability while providing large windows on the piano nobile to ventilate the furnaces, and a row of open arches on the ground floor to house the Procuracy’s cheese shops. He resolved the dilemma by his brilliantly expressive use of rustication. The row of shops is built in the plainest type of rustication, appropriate to the prosaic function. On the piano nobile the Doric order, associated with male strength, is boldly rusticated as in the Fortezza di Sant’Andrea, to add an element of robustness. Menacing heavy lintels over the windows are clutched precariously between the ringed half-columns.

The rustication of the orders – an intriguing mixture of the sophisticated and the crude, rather like Shakespeare’s Midsummer Night’s
Dream – was a favourite Mannerist device. Giulio Romano, in particular, enjoyed using the combination in his buildings in Rome and Mantua. It also had a respectable classical ancestry in monuments of the Claudian era such as the Porta Maggiore in Rome. Variants of the idea had even appeared long before in Venice, in the Ca’ del Duca and Codussi’s façade of San Michele in Isola. But for Sansovino, as for Sanmicheli, the rusticated order had a far tougher message to convey. As Serlio wrote in his book IV, the mixture of rustication and the classical orders ‘is very pleasing to the eye, and represents great strength. For this reason I consider it more appropriate to a fortress than anything else’.  

Contemporary accounts indicate that the Zecca was much admired. Vasari called it the ‘finest, richest and strongest of Sansovino’s buildings’. But it was also frequently likened to a fortress – for instance, Francesco Sansovino in 1561 called it ‘a worthy prison for the precious gold’. Thus it is not surprising to find that Antonio da Ponte’s design for the city’s prisons, designed around 1580 on the far side of the Palazzo Ducale, was strongly influenced by Sansovino’s Mint.

Sansovino’s most famous Venetian building was the Library of Saint Mark’s. According to Palladio it was ‘the richest, most ornate building

98 Il Volo del Turco (a tightrope act that formed part of the Giovedì Grasso festivities), anonymous woodcut with arms of Doge Francesco Donà (1545-53) (Museo Correr, Venice). The woodcut shows the unfinished Library and the two-storey Zecca.
The Zecca and the Library of Saint Mark's, both by Jacopo Sansovino. The south end of the Library was completed by Scamozzi between 1588 and 1591 since Antiquity', showing the Venetians how to build in the 'beautiful style'. This long structure on the west side of the Piazzetta, facing the Palazzo Ducale, 'collides' with the Zecca on the other side with such apparent rudeness that one cannot help being struck by the difference in style and function between the two buildings (fig. 99). The Library was begun in 1537 to house the famous collection of manuscripts bequeathed to the Venetian Republic by Cardinal Bessarion of Trebizond in 1468.

The Procurators of Saint Mark's, who commissioned the new building, already owned the existing structures on the site – a row of hostellries and taverns dating from the late twelfth century, with a meat market at the lagoon end and a row of lean-to bakers' stalls in front. These untidy buildings, visible in a late-fifteenth-century painting attributed to Lazzaro Bastiani in the Museo Correr in Venice, added nothing to the dignity of the Piazzetta, and in any case were nearing the end of their useful life.

As we learn from Vasari's biography and from contemporary records, the first task that Sansovino tackled when he was appointed proto to the Procurators in 1529 was to remove the food stalls and latrines at the feet of the two great columns in the Piazzetta. Thus, from the very beginning, he was dedicated to improving the centre of the city of Venice and removing undignified eyesores. In the event it proved a long and difficult task to find alternative nearby sites for the hostellries, which
had to be demolished to make room for the new Library. Because of the delays, only sixteen bays were completed before Sansovino’s death in 1570. The remainder was completed afterwards by Vincenzo Scamozzi. The Library appears in its incomplete form in two sixteenth-century woodcuts, which also show the two-storey Mint. Jost Amman’s view gives a vivid impression of the sort of use to which the inns were put (fig. 100). The Library reading-room occupies the seven bays of the piano nobile nearest the Campanile, those that were completed first (fig. 103). The entrance in the central arch of the twenty-one-bay arcade leads by an impressive staircase, its barrel-vaulted ceiling richly decorated with gilded stucco and paintings, to a square vestibule which was used as a school for teaching classics to young nobles. The vestibule opens into the magnificent reading-room, brightly lit by the row of large, east-facing windows. It is surely no coincidence that Vitruvius recommends that libraries, like bedrooms, should face the east. The coffered ceiling

100 Jost Amman, The Procession for the Doge’s Marriage with the Sea, woodcut, mid-sixteenth century; detail showing the unfinished Library and the two-storey Zecca
Piazza San Marco, plan showing the layout after Sansovino's remodelling (from L. Cicognara, A. Diedo and G. Selva, *Le fabbriche e i monumenti cospicue di Venezia*, I, Venice, 1838). A: San Marco; B: Palazzo Ducale; C: Procuratie Vecchie; D: Campanile; E: Torre dell'Orologio; F: Piazzetta dei Leoncini; G: Palazzo Patriarcale; H: prisons; I: Loggetta; J: Library; K: Zecca; L: Procuratie Nuove; M: Giardini Reali; N: Ala Napoleonica
contains seven rows of circular paintings by the best artists of the day. The Procurators held a competition to choose the best painting, to be judged by Sansovino’s great friend Titian. The prize of a gold chain was awarded to Paolo Veronese for his roundel depicting Music. The room originally had rows of reading desks, arranged like church pews on either side of a central aisle, rather like the desks that are still preserved in Michelangelo’s Laurentian Library in Florence. The piano nobile apartments at the other end of the Library building, completed after Sansovino’s death, contained office accommodation for the Procurators. On the ground floor the arcade opened on to a row of shops.

The elevation of the exterior was designed to be continued around the whole of the south side of Piazza San Marco as far as the church of San Geminiano. Thus its design was less strictly related to its function than that of the Zecca, or indeed Sanmicheli’s Fortezza. Indeed, the project had been commissioned in principle in 1536, before the decision to house Bessarion’s library inside. From the exterior the spectator is unaware of precisely where in the long façade the library itself is located. The design was conceived as much to mould the open spaces around as to contain the rooms within. Sansovino showed his awareness of the importance of the Piazza and the Piazzetta by the orientation of the new buildings, making the existing campanile a free-standing monument on the corner between the two adjoining open spaces. As Gentile Bellini’s painting of the Procession in Piazza San Marco shows, the Campanile was originally flanked by buildings rather than free-standing (fig. 17). According to Sansovino’s design, the south side of the piazza was realigned to make the space trapezium-shaped. Thus San Marco became the central feature of the eastern prospect, and the Palazzo Ducale became visible from anywhere in the Piazza (fig. 101). (Bellini had contrived this artificially in his painting by altering the relative positions of the buildings.)

What was it that made the Library façade so famous, both in Venice and elsewhere (fig. 102)? The basic elements of the design – large piano nobile windows with balconies over an arcade below – were not revolutionary in Venice. In fact they reproduce the essential features of the previous building on the site. Nor was the use of richly carved Istrian stone unprecedented in Venice, where there was a tradition of high quality stone-carving. The newly built Scuola Grande di San Rocco, for example, was just as ornate (fig. 90). Moreover, Codussi in Venice and Falconetto in Padua had already shown how to use the classical orders to organize a façade and add an air of classical dignity.

It seems that to Venetians the Library embodied exactly what they were seeking – a transposition of the ancient Roman style of building on to Venetian soil. Classical reminiscences abound – obelisks, keystone heads, spandrel figures and the rich frieze with putti bearing garlands.
The correct use of the Doric and Ionic orders with their appropriate friezes, cornices and bases made the classical allusion yet more convincing to Venetian eyes. The column-arch arrangement derives from well-known ancient Roman buildings such as the Colosseum and the Theatre of Marcellus.

In reality, however, Sansovino's Library can hardly be considered 'Roman' in either the antique or the High Renaissance sense. The contrast with Michelangelo's Capitoline palaces, designed for the ancient centre of Rome around 1538, is revealing. Both projects were for two-storey buildings with arcades below and apartments above, crowned by balustrades bearing statues. Both façades were conceived chiefly to articulate and define the open spaces in front. Both designs were conditioned by the Mannerist tendencies of their age, revealed in the window-tabernacles of the Capitoline palaces and the daring clash with the Zecca at the south end of the Library. Yet the vibrating chiaroscuro of the Library is very different from the hard lines of the yellow travertine palaces on the Capitol. While Sansovino emphasized the breadth of his façade by means of its two bold entablatures, Michelangelo used a giant order of pilasters to counteract the width of his elevation. In the Library
the half-columns are made to appear to support the whole structure, and the wall surface is hardly visible, in contrast to the Capitoline palaces. Though Michelangelo and Sansovino were both great sculptors, Michelangelo's severe linear design made little use of his sculptural abilities. Sansovino, on the other hand, rightly realized that a building richly decorated with all'antica sculpture would make a deep impression on the sensibilities of the Venetian nobility, with their long tradition of collecting classical sculpture.

It was his capacity to articulate façades in high relief that was perhaps Sansovino's most important contribution to Venetian architecture. The projecting cornices and half-columns of the Library give the building a new massiveness and sense of grandeur. The rhythms are slower and more emphatic than, say, those of the Palazzo Ducale opposite. In contrast to the Procuratie Vecchie on the far side of the Piazza the whole façade is not conceived as a wall surface pierced by windows, with the classical orders, as it were, engraved on the plane of the wall. Instead it is a three-dimensional structure, with the deep shadows of the windows and arches enhanced by the play of light on the richly carved Istrian stone. This sense of volume was not in itself new in Venice – consider,
for example, the weighty three-dimensionality of the church of San Marco and the rich sculptural ornament of the Scuola di San Rocco. But as we have seen, San Marco was viewed in Venice almost like a work of antiquity; and during the Gothic period the wall surface had re-emerged as an expressive architectural component in its own right.

Sansovino himself designed some buildings of a more sober, two-dimensional character. The Library may be his most famous work, but it is not exactly typical. Indeed, it is difficult to pinpoint Sansovino’s contribution to the architecture of Venice, for he was a supremely adaptable architect. Always sensitive to the needs of his patrons, he varied each design according to the specific circumstances of the commission.

Thus, his new Loggetta at the foot of the Campanile was as sculptural and richly coloured as his Fabbriche Nuove, the new Rialto warehouses, were two-dimensional and monochromatic. The Loggetta was begun in 1538 for the Procurators of Saint Mark’s as a meeting place for nobles (fig. 104), replacing the older loggia visible in Bastiani’s painting. The Fabbriche Nuove were commissioned by the Council of Ten, and begun in 1554 (fig. 105). The Loggetta was expected to provide an eye-catching piece of stage scenery for public processions, like the little coloured marble pavilions in the paintings of Carpaccio. The Fabbriche
Nuove, on the other hand, were erected in order to add a more respectable air to an untidy corner of the Rialto market. No expense was spared on the Loggetta, which was built of the richest materials. By contrast, the Council of Ten hoped to recover the cost of the Fabbriche Nuove from the rent of the new shops and store-rooms. The Loggetta was the vehicle for an elaborate sculptural programme glorifying the Venetian Republic, while the Fabbriche Nuove have no sculptural decoration whatsoever. The Loggetta, with its red, white and dark-green marble and its bronze statues, was perhaps the last important richly coloured exterior in Venice. The Fabbriche Nuove display the Renaissance preference for the whiteness of Istrian stone and pale stucco, which was to suppress the Venetian love of colour in the city's architecture for at least two centuries. The Loggetta was begun at the end of the reign of Doge Gritti, while Venetian spirits and expectations were still high; but the Fabbriche Nuove were conceived at a time of greater caution and realism. Above all, these two schemes were determined by the Renaissance concept of decorum – in other words, that the style of a building should be appropriate to its function, just as the behaviour of a person should reflect his position in life. For the Loggetta Sansovino chose the most elaborate of the orders, the Composite, with its columns boldly
free-standing, like those of a Roman triumphal arch. But the Fabbriche Nuove revealed their more prosaic function through their simplified Doric and Ionic pilaster orders over a rusticated waterfront arcade.

In addition to their public commissions Sansovino and Sanmicheli also worked for private and ecclesiastical patrons. In this their work was divided geographically. From the time of his unbuilt design for a palace for Vettor Grimani as early as 1528, Sansovino held a virtual monopoly of the principal domestic and religious commissions in Venice until his position of supremacy was challenged by Palladio in the 1560s. The two fine palaces designed by Sanmicheli for sites in Venice were both late works, probably begun only a few years before his death in 1559. Meanwhile Sanmicheli dominated the scene in his home town, Verona, not only as an expert in the art of fortification and designer of imposing city gates, but also as a gifted, all-round architect. Thus four of the principal towns on Venetian territory each received the stamp of a great sixteenth-century architect - Sansovino in Venice, Falconetto in Padua, Sanmicheli in Verona and, later, Palladio in Vicenza. And as we shall see, Palladio was soon to make his mark on Venice itself.

Sansovino's first Venetian family palace was the Palazzo Dolfin, situated on the Grand Canal near the Rialto bridge (fig. 106). The patrician who commissioned the palace, Zuanne Dolfin, was one of those more fortunate nobles who were still successfully engaged in shipping and commerce. Following the old Venetian practice he combined this with a successful career in public service. He was also lucky in having no brothers with whom to share his father's inheritance. Furthermore, his wife was a member of the wealthy Vendramin family. Thus he had sufficient reserves of capital behind him to trade adventurously and profitably.

His new palace was begun in 1538. As in Sansovino's Zecca, the façade was moved forward to provide more space on the upper floors, in this case incorporating a public street through a sottoportego below. The waterfront arcade across the whole façade must have seemed especially appropriate to the mercantile status of the owner, because of its associations with the Veneto-Byzantine casa fondaco. In order not to obstruct the street, the water entrance was at the side on a narrow rio, and the land entrance was at the back.

Nothing survives but the façade of this palace, for the rest was rebuilt for the last doge of Venice, Ludovico Manin, by the neo-classical architect Giannantonio Selva. The style of the façade must have seemed to Venetians like a demonstration piece in Roman 'correctness' with its Doric, Ionic and Corinthian orders and its row of all'antica lions' heads in the uppermost frieze. But the design is also firmly rooted in native conventions of palace building with its tripartite façade and its large windows more closely spaced in the centre. The unclassical use of an
even number of bays, with a solid element in the centre (echoing the Gothic Palazzo Bembo next door), affirms the absence of a waterfront entrance.

The position of supremacy that Sansovino rapidly achieved in Venice is clear from the fact that by 1537 he had been asked by the Corner family, the richest in the city and one of the most distinguished, to rebuild their palace on the Grand Canal at San Maurizio, destroyed by fire in 1532 (fig. 107). The old Gothic palace on the site had been bought by the Procurator Zorzi Corner, brother of Queen Caterina of Cyprus, before his death in 1527. The Corner family owned vast estates in Cyprus, yielding huge crops of cotton, sugar and wheat. They were one

107 Palazzo Corner, San Maurizio, by Sansovino, begun c.1545
of the so-called *case vecchie*, the original noble families who believed themselves descended from the first refugees from Roman cities on the mainland. Like other *case vecchie*, they maintained close ties with the papal court, and members of the family held high ecclesiastical office—two of Zorzi’s sons and three of his grandsons were cardinals.

Because of the legal problems involved in dividing Zorzi’s huge estate among his four surviving sons, the new palace was not actually begun until about 1545. Having provided Venice with a Roman manifesto in the Palazzo Dolfin, Sansovino was now prepared to treat classical elements more daringly. In particular, the imaginative detailing of the rusticated Doric window aedicules on the ground floor shows his readiness to create Mannerist effects, as his contemporaries were doing elsewhere in Italy. Sanmicheli in his Palazzo Canossa in Verona had already demonstrated how effectively paired orders, like those used in Roman High Renaissance palaces such as Bramante’s House of Raphael, could be adapted to Venetian palace types. The double order allows more of the wall surface to be concealed, giving greater significance to the columns as structural, rather than decorative elements. As in the Palazzo Dolfin, Sansovino used the tall, round-headed window type that was so popular in Renaissance Venice. Here, however, instead of narrowing and doubling up the central bays he made all the bays of uniform width, with the three central windows subtly widened to admit more light to the long salone or portego within. This device gives the building a more classical air, while preserving the practical advantages of the local building type.

The ground-plan is typically Venetian. A long *androne* in the centre, with store-rooms on either side, leads to an inner cortile. This courtyard contains the cistern, but not the main staircase, which is here incorporated into the interior, where it is better protected from the elements. Before his arrival in Venice, Sansovino had already had the useful experience of designing a palace for a long, narrow, urban site in his only Roman palace, the Palazzo Gaddi.

Sanmicheli’s most prominent Venetian palace, designed for the procurator Gerolamo Grimani shortly before the architect’s death in 1559 and built under the supervision of Gian Giacomo de’ Grigi, was smaller than the Palazzo Corner, yet emphatically grandiose in style (fig. 108). This seems to reflect a certain need for self-assertion on the part of the Grimani family, who, though an old-established noble family, did not belong to the so-called *case vecchie*. Antonio Grimani, founder of the family fortune, made his money by cunning commodity dealing at a time of violently fluctuating prices. He subsequently had a disastrous period as captain of the Venetian navy, but recovered from his disgrace and was doge from 1521 to 1523.

Whereas Sansovino took care to make his palace façades seem an integral part of the structure, the façade of Sanmicheli’s Palazzo Grimani juts
out from the top of the palace, making a bold statement in its own right. The effect of grandeur is heightened by increasing the size of the individual classical elements. By the ingenious use of mezzanines Sanmicheli fitted all the necessary rooms and their windows into three lofty storeys of just five huge bays each. Indeed, as originally designed, the palace would have been even taller, but the height of the upper two storeys was reduced after Sanmicheli’s death. With its three Corinthian orders, paired on each side of the outer bays, the Palazzo Grimani façade looks back to Codussi’s Palazzo Loredan (Vendramin-Calergi). However, the triumphal-arch rhythm of the three central bays gives it a distinctly Roman air and adds to the sense of sober dignity. Whereas Sansovino’s Palazzo Corner shows a sculptor’s enjoyment of varied surface textures, Sanmicheli’s is severely architectonic, dominated by its grid of heavy horizontal and vertical components.
Ironically, Sanmicheli's palace is actually far smaller than it appears, for the site becomes rapidly narrower towards the back (fig. 109). In consequence, the position of the long, central *androne* does not correspond with the centre of the façade. As the ground-plan shows, its displacement is masked by the colonnaded entrance hall at the water entrance. Like the Palazzo Corner, the Palazzo Grimani has a grand interior *androne*. Because of the narrow site the courtyard is at the very back, for in this case there was less need to admit extra light to the heart of the building by means of an inner court.

In his guide to Venice in 1581, Francesco Sansovino declared that four patrician palaces in the city surpassed all the others in size, grandeur, expense and Vitruvian discipline. These were his father's two palaces for the Dolfin and Corner families, Sanmicheli's Palazzo Grimani and Codussi's Palazzo Loredan, all of which, he claimed, had cost more than...
200,000 ducats (figs 82, 106–8). Yet we should not forget that the families who commissioned these magnificent buildings represented a tiny minority of the population of the city. The nobility itself was more numerous than at almost any other period, representing about 6 per cent of the total number of inhabitants in the mid-sixteenth century, but already by this stage great wealth was becoming concentrated in the hands of fewer and fewer noble families, while the other patricians were becoming steadily poorer.

Together with the Corner family, the Grimani were perhaps the most active private patrons of art and architecture in sixteenth-century Venice. Both families not only enjoyed great wealth, but also maintained close ties with Rome through their possession of high ecclesiastical offices. Thus both were eager to embrace the new ‘Roman’ style of Sanmicheli and Sansovino. On the whole the Grimani seem to have been readier to accept radically new artistic developments from central Italy than the older-established Corner family, who were more deeply rooted in Venetian traditions. But it was Sansovino’s design for the Palazzo Corner — so sensitively attuned as it was to Venetian tastes and expectations — that was to prove more influential in Venice in the long run.

Both Sansovino and Sanmicheli are known primarily as secular architects, unlike other great Renaissance masters such as Brunelleschi, Alberti and Bramante. In Venice and the Veneto political and economic power was concentrated as far as possible in secular hands, and the State tried constantly to inhibit the passage of wealth from secular to ecclesiastical ownership. The doges were not, on the whole, enthusiastic patrons of religious art, except in San Marco, their own private chapel. The Republic tried to keep religious affairs under State control, and had authority over both the nunneries and the parish churches. Only the male religious orders were free from government intervention, and indeed were often the most imaginative patrons of architecture in the city.

Despite the State measures to keep the Church in its place, both Sansovino and Sanmicheli received interesting religious commissions in the Veneto — Sanmicheli in and around Verona, and Sansovino in Venice. Sansovino’s most important religious work — though one of his most undemonstrative designs — was the new church of San Francesco della Vigna, begun for the friars of the Observant Franciscan order in 1534 (fig. 110). The cost of the building was supported by a clique of some of the wealthiest and most influential noble families in the city, who each acquired family chapels in the new church. Doge Andrea Gritti himself bought the right to be buried in the chancel.

This was therefore a commission that brought great prestige to the architect. But as we saw in the case of San Giobbe, rebuilt in the mid-fifteenth century by the same order, the Observant Franciscans exerted strict control over the architecture of their churches. Indeed, Sansovino’s
110  San Francesco della Vigna, interior, by Sansovino, begun 1534

111  San Francesco della Vigna, plan (from L. Cicognara, A. Diedo and G. Selva, Le fabbriche e i monumenti cospicue di Venezia, II, Venice, 1840)
design was substantially modified by one of the friars at San Francesco della Vigna, the humanist scholar Fra Francesco Zorzi. The revisions were made in the light of his views on proportion, acoustics and the need for austerity. Zorzi’s ideas on harmonic proportion reflected his interest in neo-Platonic philosophy. For instance, he reduced all the important dimensions to multiples of the number three, which according to Plato was the most perfect number – and also, conveniently, symbolized the Trinity in Christian thought. Like the Camaldolese monks who had commissioned San Michele in Isola from Codussi, the friars of San Francesco were eager to embody up-to-date Renaissance theories in their new church. Though the most influential figures in Venetian monasteries were generally members of prominent noble families, their patronage was at the same time characteristically more enlightened than either the State or individual patricians, who were traditionally conservative in their tastes. Just as San Giobbe had close links with the church of the Osservanza in Siena, so the design of San Francesco della Vigna was modelled on Cronaca’s church of San Salvatore al Monte in Florence, begun for the same order at the end of the fifteenth century. Thus Sansovino was strictly constrained, both by Zorzi’s intervention and by the decision to base his design on this Florentine prototype.

The Observant branch of the order was so called because it attempted to observe the Franciscan ideals of poverty and humility more strictly than the Conventual branch. (In Venice the Conventual friars, or Frati Minori, were based at the church of the Frari.) The search for austerity is obvious in Sansovino’s design. Its style is far removed from that of his other buildings of the same period, such as the Library and the Zecca. The flat, whitewashed wall surfaces of the interior are adorned only by simple Istrian-stone Doric pilasters, with fluted capitals like those of San Salvatore in Florence. The bright, even lighting, unusual in Venetian churches at this time, emphasizes the linear clarity of the interior.

The plan (fig. 111) adheres to the Observant Franciscan convention of a single nave with side chapels, like those of the Osservanza, San Salvatore al Monte and San Giobbe. As a result, the pulpit and the high altar are clearly visible from anywhere in the nave. The only mysterious element is the long friars’ choir, hidden behind the high altar. The location of the choir behind the high altar may have been anticipated in some form at San Giobbe, but it also followed well-known precedents such as Michelozzo’s Santissima Annunziata in Florence and Bramante’s choir at Santa Maria del Popolo in Rome. The large windows on the end wall, which illuminate the choir, actually make it appear dimly lit from other parts of the church because of the contrejour effect. This subtle device was to be taken over by Palladio in his two great Venetian churches, San Giorgio Maggiore and the Redentore. Palladio himself built the façade of the church of San Francesco della Vigna, as we shall see later.
112 Church of the Ospedale degli Incurabili, by Sansovino, begun 1565. Section by Francesco Lazzari, early nineteenth century (Museo Correr, Venice)

113 Church of the Ospedale degli Incurabili, plan by Francesco Lazzari, early nineteenth century (Museo Correr, Venice)
Sansovino’s religious commissions were not always so tightly bound to an established tradition. In the case of the church of the Incurabili hospital, begun to his design in 1565, there was no obvious prototype on which to base the project. By the middle of the sixteenth century the four big state-assisted hospitals of the city had acquired a very special reputation for their choirs of orphan girls. In Venice a new kind of religious music – the coro spezzato, or split choir – was beginning to take over from the medieval Gregorian chant, and it soon became fashionable for nobles and foreign visitors to go to one of the four hospitals, or to San Marco, on feast days to hear sung masses performed by such choirs.

The Ospedale degli Incurabili – in fact the syphilis hospital, which had an orphanage attached – was the first to build a new church especially designed for polyphonic choral music. Sansovino chose an oval plan, or rather a rectangle with rounded ends, for which there was no precedent in Venice (fig. 113). By adopting such a compact form he hoped to avoid confusing echoes, which were such a problem in the cavernous spaces of San Marco. The flat wooden roof was intended to absorb echoes, like the sounding board of a musical instrument, and to project sound back into the church (fig. 112). The choirs sang from three raised galleries, on either side of the nave and over the entrance, hidden from the public gaze by iron grilles. The church was built within the courtyard of the hospital, and the little girls reached their places in the church by means of raised passages from their living quarters. The church was built on a very small budget; only 600 ducats were provided by the State and the rest had to be made up from private donations. Unfortunately the church was demolished in 1831, and its contents dispersed, but the hospital still exists on the Zattere, and two of the nave altars are now in the church of San Giovanni di Malta. This efficient and highly original design, one of the elderly Sansovino’s last works, became a model from which future orphanage-choir churches in the city would have much to learn.

Andrea Palladio (1508–1580)

It was not until the last decade of Sansovino’s life that Palladio began to receive prominent commissions in Venice. By now the Florentine architect was an old man – he was already 74 in 1560 when Palladio began his first Venetian building, the refectory of the Benedictine monastery on the island of San Giorgio Maggiore. Significantly, in line with the pattern that we find repeated so often in Venetian architectural history, it was the religious institutions rather than the organs of State or the nobility that proved most willing to accept Palladio’s bold innovations.
Andrea Palladio was born in Padua and spent most of his working life in the Veneto. From the late 1530s onwards he was erecting magnificent buildings in and around Vicenza. His Vicentine palaces and Veneto villas were greatly admired, but although he had influential Venetian patrons on the terraferma, the conservative Venetian establishment long resisted the idea of seeing such pioneering architecture in their own city. Jacopo Sansovino had ensured his success in the very special context of Venice by incorporating many aspects of the Venetian architectural tradition into his own style. But Palladio adopted a less compromising approach. In a sense it is more surprising that so small and provincial a town as Vicenza was prepared to accept buildings designed according to such fundamentally new principles, than that the city of Venice viewed Palladio’s innovations with suspicion.

After the death of the little known Zuan Antonio Rosso in 1554, Palladio was one of those who applied to succeed him in the position of proto to the Salt Office (that is, the architect responsible for the public buildings of the city, especially the Palazzo Ducale). Yet his application was unsuccessful, and instead the insignificant Pietro de’ Guberni was appointed to the post. Such was the Venetian attachment to the buildings that symbolized the permanence of the Republic that the predictable skills of a local builder were preferred to the radical ideas of an architect of true genius. Shortly afterwards, Palladio’s project for the Scala d’Oro in the Palazzo Ducale, which he submitted in 1555, was turned down in favour of a design by Sansovino; and among the schemes for the new Rialto bridge produced by various great architects in the same decade, Sansovino’s rather than Palladio’s seems to have been the one that received most support. (In the event, neither of these schemes was to be the one chosen.)

In the early 1560s Palladio received several important commissions from religious orders in Venice. Vasari, who visited the city in 1566, was particularly impressed by his project for the Convento della Carità. This new monastery building for the Lateran branch of the Augustinian Regular Canons, begun in 1561, was never completed. It was badly damaged by fire in 1630 and has since been much altered. Moreover, since it has a sober, unremarkable exterior, and the more imposing interior is now little visited, it has been under-rated or neglected by many modern writers. The site of the Convento della Carità, much as it must have appeared in Palladio’s lifetime, is evocatively recorded in Canaletto’s early masterpiece known as The Stonemason’s Yard (fig. 114). In this picture the entrance to the monastery can be seen on the far bank of the Grand Canal between the fine Gothic church of the Carità and the scuola grande of the same name. The whole group of buildings is now the seat of the Accademia di Belle Arti.
The elaborate project for the new convent was recorded with evident pride in Palladio's *I quattro libri dell'architettura*, published in Venice in 1570 (fig. 115). As the text explains, the monastery was intended as a recreation of the houses of the ancients. Palladio's reconstructions of Greek and Roman private houses were already well known in Venice through the illustrations that he provided for Daniele Barbaro's edition of Vitruvius, published there in 1556. Probably the close links that the Lateran Canons maintained with their superiors in Rome led them to accept so strictly classical an idea, and one so apparently alien from medieval conventions of monastic building. The account of the project in the *Quattro libri* makes much of the practical advantages, which would also have encouraged the monks to accept the design.63

Only the portions on the top right of the published plan (confusingly printed in reverse) were ever built. These consisted of an open colonnaded atrium, the sacristy or *tablinum*, one of the oval staircases, and the east wing of the cloister. The Gothic church flanked the north side
115 (left) Andrea Palladio's project for the Convento della Carità, from his I quattro libri dell'architettura, Venice, 1570. The plan is printed in reverse.

116 (below) East wing of the cloister of the Convento della Carità by Palladio, begun 1561; detail of terracotta ornament.
of the tablinum (that is, the right-hand side of the reversed, printed plan). As depicted in the Quattro libri, the stately atrium could only have served as the entrance hall from the church. In reality Palladio had to rely on the existing entrance to the cloister for direct street access. As elsewhere in the treatise, however, he illustrated an idealized version of his scheme, disregarding the restrictions of the cramped site.

The atrium, with its huge Composite columns, was much admired at the time, but was completely destroyed by fire in 1630. Fortunately the rest of the executed parts of Palladio's project has survived. The east wing of the cloister has a two-storey loggia, originally open, with a row of monks' cells above (fig. 116). The Doric, Ionic and Corinthian orders, superimposed one above the other in orthodox succession, are soberly classical in style. The use of materials, however, is highly original, with brick even for the columns and arches, and the ornament in cast terracotta. This gives the elevation a characteristically Venetian warm red hue, while at the same time recalling the skilful way in which the ancient Romans used brick in their constructions. The interior parts of the monastery are even more striking. The dramatic oval staircase, with its open well in the centre and its steps cantilevered out from the wall, became justifiably famous, and led to a fine series of imitations both in Venice and in England. The sacristy, called the tablinum by Palladio to underline his classicizing intention, has an almost neo-classical sobriety and purity of form. Hefty free-standing columns support the heavy vault and help to articulate the otherwise severe interior. The austerity is relieved, too, by the pair of elegant apses, and by the rich Doric entablature – daringly omitting the frieze – that runs around the whole room.64

It was surely Palladio's gift for uniting simplicity with grandeur, so evident in the buildings of the Convento della Carità, that gave new life to the architecture of Venice. Sansovino's knowledge of the buildings of Rome had provided the city with a wealth of new motifs as well as a greater understanding of how to handle classical forms coherently and correctly. But the sculptural and chromatic richness of buildings such as the Library and the Loggetta served rather to enliven the surfaces than to emphasize the monumental scale of the structures or the volume of the spaces within. Sansovino's most successful works relied on the dramatic use of surface chiaroscuro for much of their impact. Palladio, on the other hand, could create imposing effects with the sparsest of decoration.

In the same years, Palladio was employed to design the façade of Sansovino's most important Venetian church, San Francesco della Vigna (fig. 117).65 The fact that this commission, financed by the Grimani family, was awarded during the lifetime of the older architect showed convincingly that Palladio's reputation was at last becoming established in Venice. A comparison between Sansovino's design, illustrated on the
foundation medals of 1534, and the executed façade, begun around 1562, reveals how Palladio transformed the basic elements of Sansovino’s model into something far more grand and commanding. In Palladio’s façade the four half-columns of the main order are elongated into a giant order, which is compressed into the central section as if buttressed by the lower side portions. Both orders are raised on a continuous high plinth, so that the bases of all the columns stand dramatically high above head height. The smaller order indicates the presence
of the row of lower side chapels on either side of the nave, although in reality it rises considerably higher than the chapels behind. As the side view shows, Palladio’s structure is not coherently integrated with the rest of the church. He was clearly more interested (like his patrons) in creating an imposing monument in its own right, than in compromising his design unduly to fit the existing structure. The unprecedentedly huge scale of the classical forms on the façade of San Francesco della Vigna must have been astonishing in Venice at this time, especially in its peripheral location. In the early 1560s there were still hardly any prominent Istrian-stone church façades in the city, with the notable exception of Codussi’s San Michele in Isola. Even grand Gothic churches such as the Frari and Santo Stefano were faced relatively simply in brick, while Santi Giovanni e Paolo and San Salvador still lacked their stone façades. Most parish churches, like their monastic counterparts, had brick exteriors, with Istrian stone confined to the architectural detail. The exteriors of San Marco and, on a smaller scale, the Miracoli derived their effectiveness from the use of rich, colourful materials, rather than from the dignity of their classical elements. Even Sansovino’s Istrian-stone façades for the parish churches of San Geminiano and San Giuliano, both begun in the 1550s, were less impressive, for their two-order elevations failed to rival the nobility of Palladio’s huge giant order.

The particular quality of Palladio’s artistic imagination that allowed him to create majestic effects with such economy of means is vividly illustrated in the new Benedictine church of San Giorgio Maggiore, which he began in 1565 (fig. 110). As early as 1520 the monks had considered rebuilding their old church and monastery. Indeed an anonymous drawing, which seems to be an early project for the same complex of buildings, survives in the Venetian State Archives. Francesco Sansovino’s guide to Venice, published in 1581, states that Palladio’s design was based on ‘a model made some time before’. In other words, Palladio may even have been instructed to use an earlier project, such as this one, as his starting point. His wooden model for the church of San Giorgio was built during the winter of 1565–6. By this time the new refectory, which he had begun for the monastery in 1560, was already finished. Meanwhile the monks asked permission from the Senate to fell 1,000 oak trees on their terraferma property for the new foundations. (Usually the shipbuilding industry had priority in the use of the now badly depleted mainland forests.) The foundation stone of the church was laid in March 1566, and from then on construction proceeded rapidly. By 1576 the building was virtually completed, apart from the façade. This was not erected until 1607–11, a quarter of a century after the architect’s death, although the wording of the stonemasons’ contract issued in 1607 implies that Palladio’s model was followed strictly.
This was the first complete church that Palladio built, yet it shows a remarkable sureness of aim. In his treatise he demonstrated his familiarity with the temples of antiquity, but he was fully aware that these antique models were not entirely suitable for the Christian liturgy. His recommendations on church building distinguish clearly between ideal and reality. 'Since the round [form] ... is the only one amongst all the figures that is simple, uniform, equal, strong and capacious, let us make our temples round', he writes. But after a long explanation of the advantages of the circular plan he adds: 'Those churches are also very laudable that are made in the form of a cross ... because ... they represent to the eyes of the beholders that wood from which depended our Salvation. And of this form I have made the church of San Giorgio Maggiore at Venice.'

Obviously Palladio had thought carefully about more recent traditions of church building as well as about ancient temple architecture. At San Giorgio he had to take special account of Benedictine architectural conventions. In particular he could hardly disregard the huge new church of the most famous Benedictine abbey in the area, Santa Giustina in Padua, which was begun in 1521 and was more or less complete by 1560.
This splendid building must at least have inspired the earlier model that Palladio inherited when he took on the commission. From Santa Giustina he borrowed the triple-naved plan with apsed chancel and transepts and great central dome over the crossing (fig. 119). What is interesting is the way in which he consistently avoided all those features of Santa Giustina that looked back to San Marco in Venice. For example, he omitted domes from his nave, transepts and chancel. He also replaced the triple apses of the choir and transepts of the Paduan church by single apses. Despite the fact that San Giorgio faced the great ducal church on the opposite side of the Bacino, he made few concessions to the city’s rich Byzantine legacy. We have seen how local architects of the early Renaissance used Veneto-Byzantine monuments as sources of classical ideas; and even Sansovino did not scorn such precedents. But Palladio’s artistic vision was uncompromising.

This is not to say that he was insensitive to the Venetian context and its special qualities and needs. One of the most important lessons that he learned from indigenous Venetian building practices was how to make effective use of Istrian stone. Codussi’s façade of San Michele in Isola, built for another branch of the Benedictine order, must have been the most vivid source of inspiration. In its dazzling whiteness the façade of San Giorgio makes a dramatic impression. Unlike the Scuola di San Rocco or Sansovino’s Library, the whiteness is not broken up by arcades acting as wells of deep shadow or by the chiaroscuro of rich sculptural decoration. The situation of the church, as if floating like a ship in a huge expanse of sky and water, emphasizes the frosty whiteness of the façade. In Palladio’s lifetime the view of San Giorgio from Piazza San Marco was partly obscured by a row of small houses on the waterfront of the island, which were not removed until after 1609. In that year Doge Leonardo Donà complained that they interfered with his view of the church from the windows of the Palazzo Ducale. There can be little doubt that Palladio himself would have wished to have them demolished. After all, his church provides a magnificent extension to the triumphal processional scenery of Piazza San Marco. He even adopted the Composite order of the Loggetta with its swags between the capitals, here on a gigantic scale and purged of colour.

A drawing from Palladio’s workshop, preserved in the Venetian State Archives, shows a plan of the completed church with a free-standing portico in front. In the event this ambitious idea – now considered to be a project dating from after Palladio’s death – was never taken up. Only in his tiny chapel at Maser near Asolo, built for the Barbaro family, did Palladio ever build a free-standing temple front on a church. None the less, the alternative system that he used in his Venetian churches – projecting the elements of the portico on to the plane of the façade wall – was one of his most brilliant inventions. It was probably inspired by his
own drawings of classical temples depicted in orthogonal projection, which gave a similar result. The effect was equally impressive, yet the construction was both simpler and cheaper than a true portico. What is more, no wells of shadow could interrupt the gleaming whiteness of the prospect. At San Giorgio, where Palladio designed both the façade and the body of the church, he was able to avoid the stylistic discordance between the exterior and interior that is so marked at San Francesco della Vigna. Here the façade fits more neatly on to the nave, and the large and small orders – the former raised on high bases and the latter resting on the ground – reproduce faithfully the system of the interior.

Inside the church the luminosity is perhaps even more striking than outside (fig. 120). The combination of Istrian stone and whitewashed stucco had already been used in the interiors of recent Venetian monastic churches such as San Salvador and San Francesco della Vigna. What was new in San Giorgio was the use of stronger illumination, perfectly
controlled, to stress the almost uniform whiteness, broken only by the subtlest and softest of shadows. Palladio was emphatic about the significance of white in church building: ‘Of all the colours, none is more proper for churches than white, since the purity of the colour, as of life itself, is particularly satisfying to God.’ This statement was certainly a justification of his own aesthetic preference, but it also reflects something of the Counter Reformation’s desire for greater lucidity in church services, codified in the decrees of the Council of Trent, though without specific reference to architecture.

The interior of San Giorgio is so satisfying, so masterful and so original a piece of architecture that it cannot be regarded simply as a manifesto of Counter-Reformation ideals. Even in the context of the history of Venetian architecture it seems to stand on its own. Despite his inexperience as a designer of churches there is no awkwardness in the way in which Palladio combined its various components to form a unified whole. In San Giorgio he eliminated the effect of multiplicity resulting from the repetition of apses and domes that characterizes the sister church of Santa Giustina in Padua. From any point in the church one is aware of the presence of the focus of the composition. This is the single great dome over the crossing, placed exactly midway between the entrance and the high altar, and brightly lit by windows in the lantern and drum. The four barrel-vaulted spaces that meet at this point – in the nave, the two transepts and the chancel – are clearly differentiated from the side aisles, which are lower and groin-vaulted, in order to draw attention to the four arms of the cross. In this way Palladio deftly combined his classical preference for centrally planned temples with the Christian ideal of the cruciform plan.

The giant Composite order of half-columns and piers and the smaller order of Corinthian pilasters are both carried consistently around the whole church, as well as being echoed on the façade. The smaller order orientates the spectators walking round the church, helping them to relate to the huge space. At the same time the giant order, raised on high bases and stressed by a boldly dentilled cornice, serves to articulate more distant vistas.

Great thermal windows admit light to the nave, side aisles and chancel. The thermal window, a lunette divided vertically into three sections, is so-called because of its derivation from Roman baths or *thermae*. The baths were a major source of inspiration for Palladio, not only providing him with individual motifs but also suggesting ways in which spaces of different shapes and sizes could be organized coherently. At this stage the thermal window was still rarely used in Italian architecture, but after Palladio demonstrated its possibilities it became very popular in Venice. From this time on thermal windows became standard features of new
churches, and were also inserted into many older ones to improve the lighting.\textsuperscript{74}

As in Sansovino's church of San Francesco della Vigna the monks' choir behind the high altar is lit not from above but by windows in the end wall, so that a strong, almost heavenly light seems to spring from this source. In Venice the Observant Franciscan church of San Francesco della Vigna had already shown the liturgical advantage of the long retro-choir, namely, that this arrangement did not obstruct the view of the high altar from the nave.\textsuperscript{75} Palladio, like Sansovino, must also have known Roman precedents such as Bramante's choir in the church of Santa Maria del Popolo. In San Giorgio he adopted the arrangement in spite of the fact that in the new Benedictine church of Santa Giustina the monks' choir was still in front of the high altar. After this time, however, in Venice as elsewhere in Italy, choirs were moved from naves to less obstructive positions – usually to behind the high altar, from where the sacred music could emanate as if from a mysterious, unearthly source.

The monks' choir in San Giorgio was probably a large one (there are forty-eight choir stalls), and according to Benedictine practice the divine office was sung as many as seven times a day. The importance of their sacred music is expressed in the form of the low apsed choir, designed to project sound into the church. It is possible that, on the occasion of the annual visit of the doge to San Giorgio Maggiore on Saint Stephen's day, the choir of San Marco that accompanied him occupied the two transepts, although ceremonial books suggest that the singers may in fact have been positioned in the choir or presbytery.\textsuperscript{76} The church had to provide an effective setting, acoustically speaking, for the coro spezzato or divided choir, performing the polyphonic choral music for which San Marco was so famous, as well as for the monks' choir. This must have given Palladio an incentive to refine and simplify the arrangements of the transepts of Santa Giustina, with their multiple apses and domes, since these would have caused confusing echoes. Until this time, flat wooden ceilings, which had the property of absorbing echoes, had been thought to provide the most effective acoustics in church interiors. Sansovino chose ceilings of this type for all his Venetian churches, including that of the Incurabili hospital, begun in the same year as San Giorgio Maggiore and designed with the specific needs of the orphanage choir in mind. In Rome in the same years, however, the idea that a simple barrel vault might project sound more satisfactorily was being tried out in the church of the Gesù, begun in 1568 to Vignola's design; and the notion soon began to take root elsewhere in Italy. In the end it was the low vault rather than the flat wooden ceiling that prevailed in Venice. The later orphanage-choir churches of the Mendicanti and the Pietà were constructed with vaulted ceilings rather than flat roofs, and a low vault was
constructed in San Francesco della Vigna in 1630, instead of the flat wooden coffered ceiling that had originally been intended.77

The second major church that Palladio erected in Venice was that of the Redentore (fig. 121). Like San Giorgio, it may be counted among the architect's greatest masterpieces. Although it has much in common with the earlier church, the very different nature of the commission inspired Palladio to refine and develop his ideas.

The Redentore, dedicated to Christ the Redeemer, was not commissioned by a monastic order, but by the Venetian Senate. It was the outcome of a vow taken in 1576 at the height of the terrible plague of 1575-7, in which about 30 per cent of the city's population perished.78 The Senate resolved to spend 10,000 ducats on the construction of a church in honour of the Redeemer. As part of the vow it was also decided that the doge and the Senate, together with the choir of San Marco, should visit the church every year on the anniversary of the city's final deliverance from the plague, later established as the third Sunday in July. Thus the chief function of the church was that of a votive temple, the final destination of the annual ducal procession. Although it was entrusted to the care of a group of Capuchin friars, it was not built specifically to suit their requirements but, rather, to serve as a place of pilgrimage and as a setting for magnificent state ceremonial. Indeed the Capuchins, who belonged to a particularly ascetic branch of the Franciscan order, complained bitterly that the church was too lavish.79

Because of the commitment of the Senate the church was quickly built. The foundation stone was laid in 1577, three years before Palladio's death, and the church was completed within fifteen years.80 The original budget of 10,000 ducats was exceeded by the huge sum of 60,100 ducats, but the advantage of State patronage was that extra expense could usually be met from public funds without long delays for further fund raising.81

Like San Giorgio (but unlike San Francesco della Vigna), the Redentore has such a conspicuous position that it has become one of the most famous landmarks of the city. This was not fortuitous. The Senate considered various possible sites before they finally chose the spot on the island of the Giudecca, facing the rest of the city. By tradition, in Italy and elsewhere, sanctuaries and votive temples were placed on prominent sites outside city boundaries, for this made processional routes more spectacular. The Venetian sense of spectacle and drama must have guided the Senate in their deliberations. The doge's annual visitation passed through a labyrinth of narrow crooked alleys, before emerging on the Zattere (or rafts) on the edge of the Giudecca canal, facing the new church. This route gave dramatic emphasis to the contrast between the dark, confined passages and the light and space of the
Zattere, with the shimmering vision of the brilliant white temple on the far side of the water. A specially erected bridge of boats carried the participants across the Giudecca canal.

It has been perceptively observed by Timofiewitsch that the façade of the church, when seen from afar, almost gives the illusion that a centrally-planned structure lies behind. Outside Venice, sanctuaries and votive temples were often centrally planned. Indeed, the Senate argued intently over the choice between the centralized and longitudinal plan for the new church. In the event a Latin-cross plan was selected, for it must have seemed most suitable for the final stages of the procession, as well as for the church’s dedication. Yet the emphasis that the façade gives to the soaring dome above, with the statue of Christ the Redeemer standing triumphantly on the lantern, preserves something of the character of a more conventional, centralized hilltop sanctuary.

This was the first time that Palladio was able to place a church entrance above the level of the street in front. Following Vitruvius and Alberti, Palladio himself recommended in the Quattro libri that temples should be raised on steps, but so far he had only achieved this in temple-fronted villas. The flight of steps would have heightened the drama of the final stages of the procession. Executed before that of San Giorgio, but probably designed later, the façade is a yet more elaborate variation on the theme of overlapping temple fronts (fig. 121). The rhythms of the repeated triangular pediments give vigorous visual support to the dome, as well as masking the nave and its hefty buttressing walls. It would need many pages to explore fully the complexities and subtleties of this façade design, with its play of half-columns and piers (or pilasters), of triangular and segmental pediments, of plain and dentilled cornices, and large and small orders. The upper pair of minor pediments conceals the finlike buttresses between the clerestory windows that support the lofty barrel vault. Palladio’s inspiration for the complex repetition of pediments leading up to a great dome seems to derive from his own rendering of the Pantheon in Rome, as he had depicted it in orthogonal projection in his Quattro libri of 1570.

The interior of the church, like that of San Giorgio, is brilliantly lit by huge thermal windows and by the apertures in the dome (fig. 123). As in the case of San Giorgio, the interior, like the façade, is entirely of whitewashed stucco and Istrian stone. Palladio ignored the Venetian love of colour, but in so doing he was able to stress the seriousness and grandeur of the architecture itself. The interior is rich in references to the monuments of Rome, both ancient and modern. More than twenty years had elapsed since Palladio’s last visit to Rome in 1554, and during this time the city’s wealth of artistic ideas had become absorbed into his own personal repertoire of forms. Thus there is nothing derivative about the way in which he turns the system of the drum of Bramante’s
Tempietto inside out, as it were, for the inside of the great dome over the crossing of the Redentore; or about the way in which the colonnaded apse behind the high altar recalls the wall articulation of the interior of the Pantheon. Once again, as in San Giorgio, the lessons of the Roman baths were fundamental to the design. The way in which the apsed niches emphasize the thickness of the walls, the regular rhythms of the nave elevation, and the linking of varied spatial sequences into a symmetrical, unified coherent whole, are all inspired by Palladio’s studies of ancient bath complexes (fig. 122). As Ackerman demonstrated, the single-naved church with side chapels was prominent in Counter-Reformation church design because of the acoustic and practical advantages of this arrangement for preaching. In this period Vignola’s church of the Gesù in Rome and Alessi’s San Barnaba in Milan were constructed with similar layouts. Yet, as we have seen, the type had already been established in Venice, long before the Council of Trent, in the earlier Observant Franciscan churches of San Giobbe and San Francesco della Vigna. Despite its ref-
ferences to Observant Franciscan traditions, however, we cannot wonder that the Capuchin friars at the Redentore, with their extreme regard for humility and austerity, were dismayed by the magnificence of Palladio’s church. In deference to their feelings, Palladio made their own choir, behind the high altar, as simple as possible. The friars were provided with new conventual buildings at the back of the church; and Palladio ensured that the exterior apses of the transepts and choir, visible from the cloisters, were also completely plain. Yet Palladio’s own intentions were not irreligious. As he explained in the Quattro libri, he believed that temples should be made as fine as one could possibly imagine, in honour of the Almighty, and ‘so disposed in every part that those who enter are stunned by their beauty’.86

By this time Palladio had acquired respectability in Venice, with the help of influential friends and patrons such as Daniele and Marc’Antonio Barbaro, and was recognized as the city’s finest architect. After each of the two great fires in the Palazzo Ducale in 1574 and 1577,
he was employed to give technical and artistic advice about the repair of the old palace. Even in this capacity his ideas were as bold as ever. After the more serious fire of 1577 he explained in his report how he believed the Gothic structure of the Palazzo Ducale to be fundamentally unsound – even before the fire damage – since the uppermost walls were twice as thick as the columns that supported them. He therefore submitted an ambitious, radical scheme for the complete rebuilding of the palace in the classical style. His chief supporter was Marc'Antonio Barbaro, who argued Palladio's case in the Senate with great tenacity, but in the end he failed to convince his fellow senators, just as he had failed to persuade them to choose a centralized plan for the Redentore. It was resolved instead to restore the old structure, which had long represented to Venetians the ancient traditions and durability of the Republic. This was not the moment to discard such a potent symbol. Public confidence had been badly shaken during the recent, ill-fated war against the Turks in the eastern Mediterranean, which had led eventually to the loss of Cyprus in 1573, despite the famous Venetian victory at the battle of Lepanto two years earlier. Once again it was the radical anti-Roman element in the nobility that dominated.

However, Palladio's artistic legacy in Venice could not be ignored. Within a generation his impressive contribution to the architecture of the city had itself become absorbed into the Venetian heritage. No church builder could in future forget his restrained, yet compelling classical style, or disregard his brilliant solutions to liturgical and practical problems. To the vocabulary and grammar of Roman architecture, already introduced to Venice by Serlio, Sansovino and Sanmicheli, he added a sense of the scale and grandeur of the buildings of the ancients. He showed that majestic effects could be achieved without expensive materials, chromatic richness or elaborate decoration, which would only have obscured the unity and coherence of his masterful conceptions.
The Beginnings of the Venetian Baroque

Sansovino died in 1570, and Palladio a decade later in 1580. Between them, these two architects had provided Venice with a completely new range of visual ideas. While Palladio’s activities in Venice had been concentrated in the field of religious architecture, Sansovino had worked mainly for secular patrons. Thus the legacies of the two architects were broadly complementary. The extent and durability of Sansovino’s influence was a measure of his special ability to assess the particular tastes and needs of his Venetian patrons. Palladio, on the other hand, was more daring. He inspired Venice, above all, by his capacity to create striking, memorable and satisfying visual effects. Both were sensitive to the theatrical character of the city, integrating their buildings into the urban fabric of Venice like pieces of scenery on a stage. Both based their designs on local building types and used the materials best adapted to the physical setting. Gradually their ideas filtered down through the whole spectrum of the city’s architecture, to inspire humbler patrons and lesser builders. Most of their imitators understood little of their precepts of design, but simply applied selected motifs to standard local models. The more talented of their successors, however, proved more independent, and began to steer Venetian architecture gently towards the more spacious, rhythmic, flamboyant style known by the convenient, if imprecise, label of baroque.

Alessandro Vittoria (1524–1608) was Sansovino’s most gifted pupil. Best known for his sculpture and stucco decorations, he is usually considered a Mannerist artist because of his liking for bizarre touches such as fireplaces in the form of huge, open-mouthed, monstrous faces. But in his Palazzo Balbi on the Grand Canal, built between 1582 and 1590, he adopted a more relaxed baroque style, decorating a traditional Venetian tripartite palace façade with exuberant broken pediments and cartouches (fig. 124).

While Vittoria was a former pupil of Sansovino, Vincenzo Scamozzi (1552–1616) was a native of Vicenza and a follower of Palladio. Though
124 Palazzo Balbi, by Alessandro Vittoria, begun 1582

125 Hospital of the Mendicanti, by Vincenzo Scamozzi, begun 1601, plan (from L. Cicognara, A. Diedo and G. Selva, Le fabbriche e i monumenti cospicues di Venezia, II, Venice, 1840)
his own treatise, *L'idea dell'architettura universale*, published in Venice in 1615, makes no mention of Palladio, his work in Venice shows the extent of his master's influence. For example, in the church of San Nicolò da Tolentine, commissioned in 1590 by the recently established Theatine order, Scamozzi based his model on Palladio's own designs for the choir and crossing, adding a nave and side chapels in place of Palladio's portico. To his great indignation Scamozzi was sacked by the Theatines in 1599 for supposed incompetence.  

His remarkable circular church for the nunnery of the Celestia near the Arsenal has been virtually forgotten because it was demolished in 1605 and rebuilt in a more conventional form. The ground-plan of Scamozzi's hospital of the Mendicanti, begun in 1601, reflects Palladio's interest in symmetrical building complexes (fig. 125). The quarters for the inmates – beggars and orphans – are arranged around two cloisters on either side of the central church. The design for the church itself borrows the single nave with four altars and raised singing galleries from Sansovino's church for the Incurabili hospital. But the idea is reworked on Palladian lines, adding a vaulted ceiling and thermal windows.

Perhaps the most surprising and impressive building of these years was Simon Sorella's new church for the nunnery of San Lorenzo. Light from great thermal windows exposes the bold lines of the spacious, white interior, now disused and stripped of its contents. The unusual breadth of the simple rectangular nave is further emphasized by a triple-arched choir screen, which cuts across the whole church from one side to the other, separating the nuns’ choir from the space used by visitors. The side arches of the screen are closed by iron grilles, and in the central one, the high altar faces both ways to serve the needs of both the nuns and the public.

The heritage of Palladio and Sansovino, consolidated by such competent followers as Vittoria, Scamozzi and Sorella, provided the artistic background for the city's greatest native architect, Baldassare Longhena. It is a curious irony that Longhena's career coincided with a period in which Venetian painting was heavily dependent on imported talent. The foreign artists who came to Venice in the seventeenth century – such as Bernardo Strozzi from Genoa, the German painters Johann Liss and Johann Carl Loth, and the Neapolitan Luca Giordano – came not so much to learn, as to make their own contributions to the art of the city.  

Venetian patrons were attracted to their up-to-date baroque style, and few local artists were able to compete with these more gifted outsiders. One could protest that the indigenous love of luminosity and a clear bright palette, to which the Venetian eye was attuned by the light and colour of the city itself, made native artists inherently ill-suited to the tenebrism and weight of the baroque idiom. Yet the fact that Venetian patrons wanted works of this type for their churches and palaces would
seem to contradict the idea that there was an innate Venetian antipathy to baroque chiaroscuro.

The seventeenth century was not a culturally barren era in Venetian history. After all, music, both secular and religious, reached great heights in the hands of such composers as Claudio Monteverdi (1567–1643) and Francesco Cavalli (1602–76), though, admittedly, neither was a native of Venice. Nor was this a period of exceptional political or economic upheavals. During the sixteenth century, in the face of rapidly rising wheat prices and the risky nature of Mediterranean trade, huge amounts of capital had been invested in agriculture in the Veneto, in order to make the Republic more self-sufficient in foodstuffs. The Venetian nobility had a long tradition of investing trade surpluses in land on the terraferma, but in the sixteenth century the productivity of this land was greatly increased by ambitious programmes of land drainage and reclamation. As a result, by the seventeenth century Venice was economically more secure, and far less vulnerable to the effects of war, piracy and storms at sea. Although shipbuilding was hit by the decline in overseas trade and falling supplies of timber, other sectors of manufacturing industry – especially printing and the production of textiles and glass – were expanding. The Republic had recovered from the shock of the loss of Cyprus in 1573 and the terrible plague of 1575–7, and was now beginning to act more confidently on the political front. In 1606 Venice stood out resolutely against the papal interdict, which the pope had hoped would force the Republic to adopt a more subservient attitude towards the Church. At sea, Turkish and Spanish power in the Mediterranean was beginning to wane. Despite the loss of Crete in 1669, Venice generally had the advantage in seventeenth-century naval encounters with the Ottonian empire, although she had to make concessions to the Papacy in order to gain support in the struggle against the Turks. Venetian survival depended on preserving the finely balanced political situation in which the Republic found herself, and this fact did not encourage drastic action on the political front. Economically during the seventeenth century there was a steady but very gradual overall decline in prosperity, with a few of the richest families still managing to remain extremely wealthy.

The contradictions inherent in the background to Longhena’s career serve to remind us that great artists are not simply the products of their environment. Of course, architects in particular are dependent on prosperous, enlightened patrons for their greatest opportunities; but artists need more than patronage and basic competence to produce works of genius. Longhena was an architect gifted with that particular combination of intelligence, ingenuity, technical skill, artistic sensibility and visual imagination, which made his works stand out above those of all his contemporaries in the whole of northern Italy.
Baldassare Longhena (1596/7–1682)

Longhena was born in Venice, in the parish of San Severo, in late 1596 or early 1597, just before the birth of Gian Lorenzo Bernini in Naples in 1598. His parents came from the Lake of Lugano, the homeland of that other great baroque architect Francesco Borromini, born in 1599. Longhena's father was a highly respected stonemason, and Baldassare himself probably studied under Scamozzi. Temanza reports that he was a small man, who always dressed in black and behaved in a dignified manner, and who listened attentively to the opinions of others; but this modest exterior concealed a tenacious and far-sighted artistic personality. According to Temanza he was also pleasant and courteous in his relations with others, particularly with his craftsmen.

Longhena's greatest masterpiece was the church of Santa Maria della Salute, which occupied him for most of his long career (fig. 126). In 1630, during the terrible sixteen-month epidemic of plague in which 46,490 of the city's inhabitants died, the Senate resolved to build a votive temple dedicated to the Virgin, protector of salute or health. The city had always been acutely conscious of its vulnerability to epidemics; and this fear manifested itself in the way in which outbursts of plague stimulated some of the most extravagant building projects. The building of the church and scuola of San Rocco, dedicated to the saint who was believed to heal plague victims, had been largely financed through
donations from anxious individuals. Huge amounts of public money had been spent on Palladio’s church of the Redentore after the great plague of 1575-7. That the church of the Salute was conceived as a seventeenth-century equivalent to the Redentore is reflected in many aspects of the design, as we shall see.

Of the eleven projects submitted to the Senate, only two were thought worthy of serious consideration. One was a plan for a longitudinal church by Antonio Smeraldi, who was also called ‘il Fracao’ and whose father Francesco had built the Palladian façade of the cathedral church of San Pietro di Castello. The other was Longhena’s centralized scheme, to which he himself referred in an accompanying letter as a ‘rotonda machina’. It is significant that the word ‘machina’, here meaning a big building, was also used to describe the festive floats used in Venetian regattas. The form of Longhena’s model, unprecedented in Venetian ecclesiastical architecture, must have reminded Venetians of these flambouyant, towering, structures, shaped like merry-go-rounds in order to look effective from any viewpoint.

Just as the Senate had argued bitterly over the relative merits of centralized and longitudinal plans in the case of the Redentore, so there was no unanimity over the choice of Longhena’s model. This was eventually chosen by 66 votes to 39, to the great indignation of Smeraldi. Longhena was by no means an unknown genius, as posterity would have us believe. Through his father’s activities as a stonemason and Scamozzi’s teaching, he had made useful contacts in the city. Indeed he had already been commissioned to rebuild the cathedral of Chioggia, and was probably responsible for the rebuilding or modernization of four important patrician palaces in Venice at this early stage in his career. Muraro suggested that Longhena, who apparently already knew the new doge, Nicolò Contarini, on more than professional terms, was supported by the more radical members of the Senate, those who adhered to the policies of Contarini, and the chief advocate of Venetian religious independence, Fra Paolo Sarpi. These were the younger members of the nobility who had backed the Venetian stand against the papal interdict, and defended her controversial diplomatic, political and commercial links with the Protestant world. Meanwhile Smeraldi’s less adventurous model probably appealed to the more conservative element in the Senate. But Longhena’s track record as an architect alone would have been enough to sway the decision.

The important political message that the new church was supposed to convey helped to justify the huge expense. Very quickly, as the church assumed its now indispensable place in the Venetian scene it also became part of the mythology of Venice. A long poem written by a Somascan priest, Lorenzo Longo, and published in 1644, just thirteen years after the foundation of the church, related that the Virgin had appeared to the
doge in a vision, bearing a model of the church. The poem also claimed that Longhena, called by Longo ‘il nuovo Palladio’, was told of the form his design should take in a dream. The miraculous origin is engagingly symbolized by the carved stone cherubs on the waterfront, apparently supporting the platform on which the church stands, as if the church had been carried into place by angels like the legendary transport of the Holy House of Loreto.

The poem’s description of the iconography of the church suggests that the poet saw it as a declaration of Venetian adherence to her own brand of Catholicism, as defended by that persuasive thinker Sarpi. According to the poem, the statue of the Virgin over the entrance was to be flanked by statues of four Venetian saints, Sagredo, Magno, Lorenzo Giustiniani and Gerolamo Emiliani, as if to indicate the self-sufficiency of Venetian pastoral life. The church with the statuary described in Longo’s poem appears in an engraving by Marco Boschini, published in the same year, 1644. The Republic’s stubborn resistance to papal interference is also reflected in the fact that the church was entrusted to the Padri Somaschi, the only religious order to have been founded in Venice. The Padri Somaschi were responsible for training priests and clerics, and had played a particularly important role in the city since the expulsion of the Jesuits after the papal interdict in 1606. The Jesuits, who were active in all fields of education, had been seen as unwelcome spreaders of papal orthodoxy and rigid Counter-Reformation ideas.

In the event the Republic was unable to maintain this defiant position. Needing the support of the whole Catholic world in her continuing struggle against the Turks, she began to make compromises. The radical element in the Senate began to lose ground against the more conservative members, who traditionally held closer ties with the Papacy, and the Jesuits were finally allowed to return in 1657. As executed, the iconography of the Salute assumed a more orthodox Counter-Reformation stance. Indeed, the programme laid out by Longhi and Boschini may never have been more than a propaganda exercise. In the church itself, the four Venetian saints were replaced by angels, and on the huge dome a statue of the Virgin with a crown of twelve stars was erected. This figure, standing on a crescent moon, like the vision in the Book of Revelation traditionally associated with the Immaculate Virgin, took the place of the Saint Michael who appears in Boschini’s engraving. Thus the dominant message of the church became the perfection of the Immaculate Virgin, conceived free of sin, in order to triumph over evil. This potent expression of orthodox Counter-Reformation theology triumphed over the patriotic expression of Venetian self-assurance, as expounded by Longo and Boschini. Indeed, Longhena’s competition proposal of 1631 had been unambiguous about the significance of his design:
This church, having the mystery of its dedication... to the Blessed Virgin, made me think, with what little talent God has bestowed on me, of building the church in the form of a rotunda, being in the shape of a crown, since it is dedicated to the Virgin.  

As we have seen, there was an ancient tradition in Italy for Marian churches to be centrally planned, and Longhena was certainly aware of this. Sanmicheli's circular church of the Madonna di Campagna, outside Verona, was a recent striking example, though Longhena, so to speak, turned the whole model inside out, placing a continuous ambulatory inside the church, rather than a portico around the outside.  

Even in the Venetian brand of Catholicism the Virgin Mary was loved and revered. After all, Venetians were not irreligious – their resistance to papal intervention merely affirmed that they wished to make their own decisions about liturgical and other ecclesiastical matters. The identification of the virtues of the city with those of the Virgin was an enduring theme in the Republic's iconography. According to Venetian mythology the date of the foundation of the city was also the feast of the Annunciation to the Virgin. Her responsibility for the city's foundation as well as her protection of health is declared in the inscription in the centre of the floor of the nave: UNDE ORIGO INDE SALUS.  

The Festa della Salute, the date of the doge's annual processional visit to the new church, was fixed on 21 November, the day of the feast of the Presentation of the Virgin. Longo's poem asserted that the flight of fifteen steps in front of the Salute was intended as an explicit reference to the Temple of Solomon in Jerusalem, where the Presentation itself was supposed to have taken place. (In reality there are sixteen steps, and Longhena's original memorandum specified only thirteen.) In addition to the complex Marian symbolism, the original function of the church as a means of protection against the plague was not forgotten. In Giusto Le Court's group of statues over the high altar, the Virgin is flanked on one side by a personification of Venice, kneeling in adoration, and on the other by a hideous old hag, representing the plague, rushing away to the right.  

The notion of the church having been brought by cherubs, and its association with images of regatta floats, are highly deceptive allusions. In reality the huge structure needed the deepest, firmest foundations that could possibly be provided. It is recorded that 1,156,627 piles were sunk to support the new building – 'a veritable buried forest' in Longo's words. By this date the shortage of wood made new foundations almost prohibitively expensive, and most new buildings in the city now reused existing foundations.  

Like the Redentore, the Salute was primarily a votive temple, rather than a monastic church. The processional function is clear from
Boschini’s engraving, in which crowds of people are seen mounting the steps and converging on the climax of the scene, the high altar, visible through the wide open doorway.\textsuperscript{26} Traditionally, as we have seen, sanctuaries and votive temples stood on conspicuous hilltops, such as the basilica on Monte Berico overlooking Vicenza. Like the Salute, this Vicentine votive church was founded during an epidemic of plague and dedicated to the Virgin Mary. The Salute’s prominent site, on a narrow finger of land where the Giudecca canal and the Grand Canal join the Bacino di San Marco, was the best equivalent that Venetian topography could offer.

The site was symbolic in other ways too. It was already occupied by a church dedicated to the Trinità; and since the Middle Ages the Trinity had been closely associated in Christian imagery with the Immaculate Conception of the Virgin.\textsuperscript{27} As Wittkower pointed out, the site also lies at the centre of an imaginary semicircle joining the churches of San Marco and the Redentore, the two other great religious monuments erected by the Venetian state. Palladio’s church of San Giorgio Maggiore, too, lies on the perimeter of the same circle.\textsuperscript{28} Moreover, the new church was situated at the point where the huge triangular complex of the Dogana, the customs house, joins the rest of the city. This allowed the Salute – a symbol of health and well-being, and of the Virgin’s protection of the city – to function visually as an anchor for Venetian trade, at once so risky and so essential to the Republic’s survival.

In their final report of June \textsuperscript{1631} the committee of five nobles, appointed to advise the Senate on the choice of the model for the new church, summarized the conditions with which the competitors had had to comply. Most of these were predictable requirements – for instance, that the church should make a grand impression, that the interior should be well lit (by this time a general rule in Venetian church building), and that the cost should not be too exorbitant. The most demanding of the stipulations was more unusual – namely, that while the high altar should be clearly visible from the entrance, the others should come into view as one moved through the church. It was this very awkward precondition, designed to make processions more dramatic, that Longhena’s model so brilliantly satisfied.\textsuperscript{29}

In the Redentore Palladio had already shown how effectively the entrance to the chancel could be used to frame the high altar, when seen from the main doorway of the church; participants of moving processions would then gradually see more of the church revealed as they moved down the nave. Longhena took over this dramatic device from Palladio, for like the Redentore the Salute had to serve, above all, as a setting for the annual votive procession. But whereas in the Redentore the spectacle unfolds along a single axis down the nave, Longhena made new vistas open up around the spectator in every direction (figs \textsuperscript{122 and }}
From the doorway of the Salute none of the six nave altars can be seen, for they are obstructed by the great piers that support the dome. From the centre of the nave, however, each one is revealed, dramatically framed by the piers and arches of the ambulatory.

Longhena seems to have derived the idea of using a continuous ambulatory around the nave directly from early Christian models, such as San Vitale in Ravenna and Santa Costanza in Rome. The only post-Byzantine ambulatory in Venice was the one that runs behind the high altar of San Zaccaria. Longhena probably also knew an attractive variant in a woodcut of the Temple of Venus (an appropriate secular parallel) in the famous romantic fantasy by Francesco Colonna, the Hypnerotomachia poliphili, published in Venice by the Aldine Press in 1499.

The Byzantine heritage of Venice provided Longhena with an exciting range of visual ideas. He realized that the sense of mass and the
dramatic manipulation of interconnected spaces in Byzantine architecture had a particular affinity with the baroque approach to design. Furthermore, since the Salute had to serve as the final destination of the important annual procession from San Marco, Longhena sensitively attuned his design to the appearance of the great ducal church. The soaring central cupola, its outer shell rising high above the inner dome, adopts the same system of double domes, and the elaborate skyline with its profusion of rooftop statuary also links the Salute visually with San Marco (figs 14 and 128).

Palladio, as we have seen, had boldly disregarded the example of San Marco in his designs for San Giorgio and the Redentore. To Longhena fell the task of reconciling these two very distinct architectural traditions – the Palladian and the Byzantine – for he recognized the special qualities of each style. Palladio’s Venetian churches had become a fundamental source of inspiration, which no religious architect in the city could afford to ignore. Like the Redentore, the rear of the Salute displays a dome framed by two elegant bell towers. The diagonal minor façades of the Salute with their prominent thermal windows recall that of the church of the Zitelle on the Giudecca, also designed by Palladio,

128 Santa Maria della Salute, section (from L. Cicognara, A. Diedo and G. Selva, Le fabbriche e i monumenti cospicue di Venezia, ii, Venice, 1840)
though executed after his death. The Salute’s central façade, too, with its huge columns on high bases framing niches containing statues, is overtly Palladian in style. Longhena emphasized the triumphal arch motif – already implicit in San Giorgio Maggiore – through the use of dynamic statuary and three-dimensional modelling. In the interior, the Salute has a giant order of Composite half-columns on high bases against piers articulated by a smaller order of Corinthian pilasters, all of these elements taken from the interior of Palladio’s San Giorgio Maggiore (figs 128 and 120). And, as Wittkower has shown, the dimensions of the Salute’s architecture are linked together in simple mathematical ratios, reflecting Palladio’s own interest in harmonized proportions.33

Yet the Salute is far more than a catalogue of Palladian and Byzantine prototypes. It is a masterpiece of baroque architecture in its own right – probably the only Italian mid-seventeenth-century building to rival the creations of Bernini and Borromini in Rome. In some respects Longhena’s aims were close to those of his Roman counterparts.34 Like Borromini he was fascinated by the play of contrasting abstract geometrical shapes. This is clear, for example, from the way in which he effortlessly transformed the nave octagon into a circular dome above by simply continuing the line of the octagon up into the sixteen ribs of the dome.35 Like Bernini in the Piazza di San Pietro in Rome, he evidently enjoyed working on a grand scale, uniting interior and exterior so that the forecourt served as an integral part of the whole dramatic sequence. As in Bernini’s church of Sant’Andrea al Quirinale, he turned the hefty buttresses that supported the dome into visually exciting features in the form of gigantic scrolls, all twelve topped by statues of the Apostles, echoing the twelve stars in the Virgin’s crown.36 Like his Roman contemporaries Longhena was not afraid to break the conventional rules of classicism for the sake of the overall optical effect. For example, he dared to use Doric pilasters in the dome, above the Composite and Corinthian orders in the nave below, and placed two window bays over each of the nave arches. It is as if he wished to state that the dome was a completely separate architectural unit, hovering – almost rotating – over the nave octagon without need of structural support from below. Longhena also showed his awareness of contemporary concepts of urban planning, like those that were developing rapidly in seventeenth-century Rome. The baroque era brought a growing interest in the possibilities of radiating vistas stretching across whole cities, linked by prominent monuments at the most conspicuous points. With its obvious echoes of features of San Marco and Palladio’s churches, the Salute boldly declared its grand visual function as the city’s new centre point, drawing the ring of older monuments around itself into a coherent whole.

Despite these affinities with the work of Roman baroque architects, Longhena’s church is unmistakably Venetian. Like Palladio, and Codussi
before him, Longhena took advantage of the special visual qualities of Istrian stone. Whether sunlit against a deep blue sky or plunging boldly into storm clouds, the Salute makes an unforgettable impression, casting its huge shadow right across the mouth of the Grand Canal. In the interior, Longhena used Istrian stone and whitewashed stucco to enhance the bright, even lighting, although now that the stone has somewhat darkened the effect is less marked. It seems that Longhena himself wanted to soften the Palladian severity of the Salute interior, for he intended to have the dome decorated with stucco work and paintings. Ornament of this type would have had greater affinity with Bernini's more figurative decorative schemes in Rome than the dome as it appears today. In the event, this was never carried out, but Longhena's intentions were not so severely abstract and geometrical as some of today's critics like to believe. After all, as we have seen, the iconography of the Salute was as fundamental to its design as that of any of Bernini's Roman churches. With its eight sides facing the eight winds, like the Tower of the Winds in Athens, it served as an inspiration for Venetian seafarers—a powerful symbol of the renewed self-confidence and economic strength of the Republic at the time of its conception. If this patriotic message began to weaken later, the Salute remained a gigantic sign of Venetian devotion to the Virgin, and a defiant challenge to future outbreaks of plague.

As the single great Venetian architect of his age, Longhena followed in the footsteps of Sansovino and Palladio simultaneously, for he dominated both secular and religious architecture in the city. In 1640 he was appointed proto to the Procuratoria de Supra, the post held by Sansovino from 1529 until his death in 1570. In this capacity Longhena completed the Procuratie Nuove, the Procurators' houses on the south side of Piazza San Marco. Scamozzi had already begun this continuation of Sansovino's Library elevation, with the addition of an extra storey to enlarge the Procurators' accommodation. It was left to Longhena to finish this wing, and to build the connecting section joining the Procuratie Nuove with the church of San Geminiano at the far end of the Piazza. This last portion was destroyed when all the buildings on the west side of the Piazza were demolished under Napoleonic rule in 1807 to make way for a grand imperial ballroom (fig. 156).

Meanwhile, Longhena began to work in the Benedictine monastery of San Giorgio Maggiore, for which Palladio had designed the new church, refectory and other buildings. In 1641 the new monastic library was begun, after Michelozzo's famous library had been badly damaged by fire and demolished. Longhena's beautifully proportioned, lofty hall, lit by huge windows opening on to one of the cloisters, retains something of the traditional sobriety of monastic library design, although the heavy, rhythmic forms of the wooden bookcases betray the architect's baroque leanings.
Monastery of San Giorgio Maggiore, staircase by Longhena, begun 1643
Two years later, in 1643, Longhena began his grand staircase in the so-called Cloister of the Cypresses at San Giorgio, leading up to the level of the new reading-room (fig. 129). This must surely be one of the most masterful of all his works. The idea of the grand double staircase derives originally from the converging ramps built by Codussi in the scuole of San Marco and San Giovanni Evangelista, and from the stately staircase at San Rocco. Longhena’s design is conceived in a totally different spirit, however. Instead of confining one’s attention in narrow, tunnel-like vistas, Longhena opened up the whole conception, adding a new spatial dimension. Here the ramps do not converge at the top, but instead part at the bottom and rise on opposite sides of the vaulted staircase hall. Both storeys of Palladio’s cloister, brilliantly illuminated by light from the central garden, are revealed through two superimposed arcades. These admit light to the staircase itself, and also provide a luminous goal for those mounting or descending the stairs. The form of the balusters, like strings of huge onions, gives an element of variety to the otherwise restrained style of the architectural detail. Through his brilliant sceno-graphic manipulation of light and shade, space and mass, Longhena gave the San Giorgio staircase that dynamic, dramatic quality that was the great innovation of his age.38

Longhena’s two greatest opportunities in the field of palace building came so late in his career that neither was completed in his lifetime. Ca’ Pesaro was begun around 1652, and finished after his death by an architect of relatively limited ability, Antonio Gaspari (fig. 130).39 By this stage in Venetian history few noble families had the resources needed for the construction of grand new palaces; and, indeed, the Pesaro family’s financial ups and downs were to some extent responsible for the long delay in completing the building. The wealthy patrician who commissioned the new palace was Giovanni Pesaro, who obviously intended it to symbolize his family’s prominence; he himself was elected doge in 1658, although he died in the following year. The Pesaro family had long been important patrons of the arts and were still ambitious and adventurous in their patronage.

The planning of the new palace was complicated by the fact that the foundations of three older buildings on the site had to be reused for the sake of economy. A preparatory drawing by Longhena for Ca’ Pesaro is preserved in the Museo Correr in Venice. This shows that the original plan comprised just two storeys, although to give a grander effect a third storey was implied by a screen wall at the top of the façade, masking the hipped roof. The most exciting feature of this early project was the grand central staircase at the end of the androne, opening on to the courtyard at the back. In the event, a less conspicuous staircase was incorporated into one of the side wings, for Venetians traditionally showed a great reluctance to waste limited space in their palaces with
grandiose staircases. The existing *androne* of Ca’ Pesaro stretches right back to the *cortile*. The final ground-plan followed the conventional Venetian arrangement of rooms, which had scarcely changed since the Gothic period, apart from the introduction of the covered staircase in the sixteenth century. As executed the palace was much larger than originally intended. A second living storey was added in the early eighteenth century, and the palace was also extended around the back of the courtyard.

Longhena’s façade was more innovatory than the plan, although here, too, he paid tribute to local Venetian prototypes. Sansovino’s Palazzo Corner at San Maurizio was the fundamental inspiration (fig. 107), but
Longhena's surface decoration, with its huge keystone heads, animal masks and fanciful balustrades, has an even richer texture. The contrasts of light and shade are intensified by means of free-standing columns on the piano nobile, and by the prominent diamond-cut rustication on the water storey. This feature had not been reused in Venice since it had been introduced in the Ca’ del Duca in the mid-fifteenth century (fig. 67) and echoed on the rio side of the Palazzo Ducale. Longhena's interest in unusual textures extends into the interior. In the androne boldly fluted columns and piers are ringed by smooth bands of rustication, reversing the typical play of rough and smooth in sixteenth-century rusticated orders.

Ca’ Pesaro was Longhena's most idiosyncratic and memorable palace design, and must surely have drawn attention to the eminence of the Pesaro family. Nevertheless, it seems that Longhena felt that this exploitation of dramatic chiaroscuro and new shapes and textures could go no further. His last great palace design, commissioned in 1667 by Filippo Bon, is considerably more controlled, and perhaps in the long term more visually satisfying (fig. 131). This palace, now called Ca’ Rezzonico after the family who acquired the palace in 1712, also remained unfinished at Longhena’s death in 1682. At that point, only the first piano nobile and the side wing along the Rio di San Barnaba were usable. The building was completed in the eighteenth century by Giorgio Massari, an architect of far greater ability than Gaspari. Massari's style was lighter and less flamboyant than Longhena’s, but in Ca’ Rezzonico his work is so perfectly attuned to that of his predecessor that it is difficult to distinguish their individual contributions.

The ground-plan of Ca’ Rezzonico, like that of Ca’ Pesaro, adopts the traditional Venetian arrangement, with its long androne flanked by smaller rooms leading to a courtyard at the back (fig. 132). Its most innovatory features were the contribution of Massari, who added a second androne, perpendicular to the first one, at the far end of the courtyard, and a grand ceremonial staircase beyond. Over the rear androne Massari built a huge ballroom, decorated with trompe-l’oeil frescos and huge glass chandeliers. As early as the sixteenth century, Venetians had begun to hold great feasts and parties in their ground-floor androni. This was considered a decadent development by Doge Leonardo Loredan in a speech of 1513, but despite elaborate sumptuary laws the love of such festivities continued to grow. By the eighteenth century, the banquets held by the richest families had become legendary. Those held by the Labia family in their huge new palace designed by Cominelli were perhaps the most famous. As a result, both in Venice and in their country villas, the wealthiest Venetian families began to build sumptuous ballrooms in which to hold their great receptions. The Rezzonico family,
who had been admitted to the Venetian nobility as late as 1687, had a meteoric rise in status and power, culminating in the election of Carlo Rezzonico as Pope Clement XIII in 1758.

In the façade of Ca’ Rezzonico, Longhena again leaned heavily on the example of Sansovino’s Palazzo Corner (figs 131 and 107). Indeed, the style of the later palace has more in common with Sansovino’s than that of the more exuberant Ca’ Pesaro. The second floor, added by Massari but probably based on Longhena’s own design, was completed in 1752. But for Massari’s attic, the palace might almost be mistaken for a sixteenth-century building. Yet the ringed half-columns on the water storey, which seem to be wrapped in bands of soft fleece, reveal Longhena’s interest in varying shapes and textures.
Longhena far outshone other seventeenth-century architects in Venice with his skilful exploitation of dramatic effects of space and light and his fertile visual imagination. But his use of such flamboyant elements was perfectly controlled – it was never merely decorative or pompous. Like other great architects he was most successful in commissions where the circumstantial limitations were strictest – such as the Salute, with its demanding brief from the Senate, or his works at San Giorgio Maggiore, where a certain monastic austerity had to be preserved. Though he worked within the bounds of local architectural traditions and expectations Longhena managed to rise above the provincialism of his contemporaries to assume a distinguished place in the wider context of European baroque architecture.
Giuseppe Sardi (1624–1699)

Only one other architect, Giuseppe Sardi, gained a significant portion of the important commissions awarded during Longhena's lifetime. Although Sardi was born in Venice, his father Antonio was a stonemason and architect from Ticino (now Italian Switzerland), a region that had already produced such great architects as Maderno and Borromini. The earliest works attributed to Giuseppe Sardi were two conspicuous new façades, those of the Scuola Grande di San Teodoro and the adjacent monastery church of San Salvador, both financed by the bequests of a wealthy Venetian merchant, Jacopo Gallo (fig. 133). Documentary evidence suggests, however, that both of these were executed in collaboration with his father, who died in 1661. The façade of San Teodoro, begun around 1654 and completed in 1657, is a conservative solution, adhering broadly to the scheme of Sansovino's San Geminiano façade, with its two orders of paired columns. That of San Salvador, finished somewhat later in 1666, is more inventive, perhaps reflecting the fact

133 San Salvador, façade begun 1660, and Scuola Grande di San Teodoro, façade begun 1654, both by Antonio and Giuseppe Sardi. Engraving by Luca Carlevaris, 1703 (Museo Correr, Venice)
that twice as much money (60,000 ducats in all) was provided for this façade. Giuseppe’s father Antonio had supplied a design in 1660, the year before his death. The main order displays Palladian reminiscences, with its huge Corinthian columns on high bases and its hanging garlands. The pilasters of the attic storey adopt masks as capitals, while stone figures stand in front of them like detached caryatids, echoing Longhena’s use of this arrangement in the dome of the Salute.

After a brief period working on new buildings for the Ospedaletto, only to be superseded by Longhena in 1667, Sardi built the façade of the nearby hospital church of San Lazzaro dei Mendicanti in the years 1665–73 – again with a bequest from Jacopo Gallo. This is a simple Palladian design with a giant order of four columns on high bases topped by a single triangular pediment. Only the broken pediment over the door betrays the façade as a seventeenth-century monument. The design seems to have been a deliberate reaction against Longhena’s elaborate, three-dimensional façade for the nearby hospital church of the Ospedaletto, begun only three years before.

Sardi’s work was to be even more explicitly related to that of the older master when he began the façade of Longhena’s church of Santa Maria degli Scalzi in 1672 (fig. 134). The benefactor of this lavish façade, Gerolamo Cavazza, was already a patron of Sardi, which probably explains why Longhena himself was not awarded the commission. Cavazza, who had been only recently admitted to the nobility, contributed the huge sum of 74,000 ducats. Here, too, Sardi leaned on the example of Sansovino, whose vocabulary had by now become absorbed into the Venetian tradition. The two orders of paired columns, the statues in niches and the reclining spandrel figures are all typical of Sansovino’s style. The effect is totally different, however, for the elaborately carved volutes and the huge double pediment with its great central cartouche give the façade a baroque panache.

In 1683, the year after Longhena’s death, Sardi was appointed to succeed him as proto to the Procuratia de Supra, the highest architectural office in the city, and was described in a legal document of 1686 as ‘the principal architect of Venice’. His last façade, that of Santa Maria del Giglio, erected in the years 1678–81, is even more ostentatious than that of the Scalzi (fig. 135). To a great extent its flamboyant character is due to the wishes of the patron, Antonio Barbaro, provveditore generale in Dalmatia, who died in 1678 leaving 30,000 ducats for the façade, as a monument to himself and his family. It seems that Barbaro felt the need to defend his reputation, because he had been dismissed for incompetence when fighting in the war of Candia. A statue of the donor stands in front of a heavy curtain above the doorway, flanked by statues of Fame, Honour, Virtue and Wisdom. His four
brothers are portrayed by statues in the lower niches. Reliefs of naval battles decorate the bases of the upper columns, while those of the lower order have reliefs of forts and fortified towns then under Venetian rule. The inclusion of Rome in this series seems a splendidly arrogant gesture, but Barbaro had in fact served as ambassador there.

Just as the Mendicanti façade invites comparison with the Ospedaletto, so that of Santa Maria del Giglio seems to have been a critique of the façade of the nearby church of San Moisè, begun in 1668 with a lavish bequest from Vincenzo Fini and his brother (fig. 136). This façade, designed by the otherwise little known architect Alessandro Tremignon, is a similarly pompous monument glorifying the donor and his family; but here the effect is fussy and the drama confused, while the proportions of the architectural framework are awkward. Sardi's façade of Santa Maria del Giglio could hardly be described as elegant, but it
has a boldness and coherence lacking in San Moisè. The crowning segmental pediment, breaking through a second one below, and surmounted by a statue of *Glory*, gives a central emphasis to the design, and the drama is clearly focused on the person of Barbaro himself, as he would obviously have wished.

In general, the development of the baroque style is closely associated with expressions of self-confidence. The explanation for this is partly economic, for only wealthy patrons could afford to build on such a grand scale, or to employ such flamboyant decoration or rich materials. The financial aspect is particularly evident in seventeenth-century Venice, where all the most conspicuous baroque monuments were commissioned either by the very richest private individuals or by the State. Other more modest buildings of the period can be distinguished only by the occasional broken pediment or florid balustrade.
Self-confidence of a less material kind was also a prerequisite. The climax of the baroque style in European architecture was probably reached in mid-seventeenth-century Rome. Here the renewed confidence of the Papacy, which had triumphantly weathered the buffeting of the Reformation and Counter Reformation, was expressed in the magnificent religious architecture of Bernini, Borromini and Pietro da Cortona. Bernini, in particular, used theatrical devices and baroque techniques of illusionism to transport the spectator's emotions on to a more spiritual plane, revealing the essential mysteries of the Catholic faith. The success of such effects required a strong commitment on the part of patron, architect and spectator alike. In Venice a certain scepticism had long been present in the religious life of the city because of the city's strong links with the Protestant world. A building such as the Salute was certainly a bold expression of self-confidence on the part of the Venetian Republic,
but Longhena could not expect to play on the emotions of the spectator as Bernini was doing in Rome. Besides, the mystical quality in Bernini’s architecture was closely associated with Jesuit thinking — a similar approach is evident in Saint Ignatius’s *Spiritual Exercises* — and the Jesuits were banished from Venice for a large part of the seventeenth century. Because of Venetian suspicion of such emotional manipulation, Longhena made no attempt to create such ecstatic, ethereal visions. He simply embraced those characteristics of baroque architecture — expansive urban vistas, a sense of light and space, and an enjoyment of scenographic effects — that were closest to Venetian sensibilities. To these he added the bold, dynamic forms that best expressed the extrovert self-fashioning ambitions of his patrons. In the following century, the new intellectual self-awareness, with its emphasis on controlled, rational thinking, was to bring this rhetorical, expansive style to an abrupt end.
Chapter 8

Palladianism and Neo-classicism

By the late seventeenth century the traditional balance of Venetian society had begun to change. The fortunes of the patrician class were declining with every generation, as their patrimony was progressively subdivided by inheritance. Forbidden to marry wealthy non-nobles, unwilling to soil their hands with manufacturing industry, distracted by time-consuming diplomatic and government positions, and undermined by the risks of far-flung trading ventures, the members of the old Venetian nobility were no longer the wealthiest sector of society, even though they still held political power. They were also steadily declining in numbers: by 1797 the patrician class made up only about 3.2 per cent of the city's population, as opposed to about 6.4 per cent in 1520.¹ In consequence, few of the important building patrons were now members of the ancient Venetian aristocracy. Some had been newly admitted to the nobility, which was at last accepting outsiders in return for large payments to government funds heavily depleted by war; others were wealthy members of the citizen class. By this time, as we have seen, the more prominent commissions from laymen were generally neither public buildings nor the palaces of distinguished old noble families, but rather the façades of churches or institutions in conspicuous places, endowed by private individuals eager to leave a lasting imprint on the Venetian scene.

This was also a period in which a number of religious orders in Venice, such as the Dominicans, the Carmelites and the Jesuits, found themselves with the resources for major building projects. The position of the Church in eighteenth-century Venice was somewhat curious. Although the State still maintained its religious independence and vigorously resisted papal intervention in ecclesiastical affairs, the Church was one of the most fervent defenders of true Catholic orthodoxy.² Although clerics were excluded from the government, the nobility had considerable control over the religious life of the city, for they monopolized the important religious offices. The Venetian Inquisition, like political censorship, was a powerful instrument for maintaining the traditional values and status quo against more radical tendencies. The few

¹37 Santa Maria del Rosario, called the Gesuati, by Giorgio Massari, begun 1726
remaining wealthy nobles gave strong financial support to the religious orders and even to the parish churches of the city to help finance building projects, partly to glorify their own reputations and partly to consolidate the power of the Church in the city. Furthermore, the suppression of some of the minor orders as a means of raising money for the wars against the Turkish 'infidel' had led to a kind of takeover situation, allowing certain of the more powerful orders to acquire land, buildings and works of art from the suppressed convents. Thus we find, in the first half of the eighteenth century, a splendid series of new churches, richly decorated with fine paintings and sculpture, rivalling those built in Rome during the Counter Reformation more than a century earlier. Perhaps the most flamboyant — and certainly the least characteristic — is Domenico Rossi's late baroque interior of the church of the Gesuiti, richly ornamented in inlaid marble and fresco, as if swathed in blue and cream damask. The Jesuits, allowed to return to Venice in 1657, had taken over and rebuilt the former church of the Crociferi; the interior was completed in 1729. On the high altar, Giuseppe Pozzo's flamboyant sacrament tabernacle, encrusted with lapis lazuli, triumphantly asserts the Jesuit re-entry into Venetian religious life.

The changing distribution of wealth in Venetian society obviously had its reflections in the architecture of the period. It cannot be denied that buildings such as the façades of Santa Maria del Giglio and San Moisè display a swagger verging on vulgarity (figs 135 and 136). At the beginning of the eighteenth century, however, Venetian architecture began to react sharply against such ostentatious excesses and to follow a course very different from that of architecture elsewhere in Italy — or indeed in Germany, Austria or France. The rococo style, which was establishing itself in various forms in most parts of mainland Europe, had a strong impact on Venetian interior decoration; yet the actual buildings of the same period show a surprising sobriety and restraint. Whereas the furniture and glassware, the stuccoes and painted decoration, the costumes and the textiles of eighteenth-century Venice display the characteristic rococo qualities of lightness and elegance, pretty pastel colours and rhythmically curving ornament, such features are generally absent in the architecture built to contain them. Nowhere in the fabric of the buildings themselves do we find the virtuoso light effects, illusionistic devices or swaying forms of eighteenth-century architecture elsewhere in Italy, such as the Spanish Steps in Rome, the work of Juvarra in Piedmont and the villas of Sicily. In Venice the exuberances of the late baroque were followed not by a lighter, playful, but still decorative idiom, but by a more serious classical style based chiefly on the architecture of Palladio. This Palladian revival, which was to lead directly, almost effortlessly, to neo-classicism, has its only obvious equivalent in England, though in Venice the movement at first lacked the self-conscious intellectual basis
of English Palladianism. It is obviously significant that there was a close artistic relationship between England and Venice in the eighteenth century. Not only did English artists visit Venice, but Venetian painters such as Sebastiano and Marco Ricci, Pellegrini and Canaletto visited England and were employed by members of the English nobility.3

The growing discrepancy between the styles of the interiors and exteriors of Venetian buildings was a reflection of the fundamental contradiction inherent in the culture of the period. The intellectual and artistic life of the city was evolving in two principal directions. On the one hand there was a yearning for distraction, a need to escape from the realities of a bankrupt treasury exhausted by repeated wars against the Turks, an impoverished nobility and the rumblings of political discontent. Drama and opera enjoyed huge popularity, and though some impresarios were more successful than others, in general the theatres of Venice flourished as never before or since.4 In the same vein, Venetian painting of the period was theatrical, witty and elegant. On the other hand the spirit of the Enlightenment was alive in Venice, as elsewhere in Europe. There was an intense desire to discuss and to clarify philosophical, scientific and aesthetic questions, and thus, in a sense, to impose order on a seemingly fragile world. Academies were founded to foster the serious study of the arts and sciences. Theoretical treatises were published and read avidly in the search for certainties and absolute values. Despite the attempts of the government to defend the city against radical thinking, the huge numbers of foreign visitors provided contact with the outside world and its preoccupations.

Domenico Rossi (1657–1737) and Andrea Tirali (1657–1737)

The first Venetian architects to react against the extravagant style of the late baroque were two exact contemporaries, Domenico Rossi (whose interior of the Gesuiti has already been mentioned) and Andrea Tirali: both were born in 1657 and died in 1737. According to their early biographer, the architect Tommaso Temanza, neither of these architects was well-educated or sophisticated – Rossi is described as ‘almost illiterate’ while Tirali ‘could hardly write’ – yet both were apparently respected in cultivated Venetian circles.5

Rossi was the nephew of Giuseppe Sardi. Like his uncle he was born on Lake Lugano, where his father was a miner. He came to Venice at the age of six or seven, and was trained as a stonemason in the workshops of Tremignon and Longhena. Temanza records that in his youth Rossi was very high-spirited and mischievous (he was also a firework expert), which perhaps accounts for his late emergence as a successful architect. He is first recorded supervising the rebuilding of the church of San Girolamo after a fire in 1705, and working for the powerful Manin
family in Udine from 1708 onwards. He achieved his first major success in Venice in 1709, at the age of 51, when he won the competition for the new façade of the parish church of Sant'Eustachio, known in Venetian dialect as San Stae. (This church had been newly rebuilt by an otherwise little-known architect, Giovanni Grassi.) The construction of the façade was to be financed by a bequest from Doge Alvise II Mocenigo. The twelve projects submitted to the competition are known from a series of engravings by Vincenzo Coronelli (fig. 138). Evidently the judges were not attracted to the more daring designs, with their swaying curves and showy detail, but preferred Rossi’s restrained neo-Palladian scheme with its four giant columns on high bases supporting a great triangular pediment (fig. 139), reminiscent of his uncle’s design for the façade of San Lazzaro dei Mendicanti. The only flamboyant feature is the broken pediment over the door, crowned by animated statues. The rest of the sculpture is neatly contained within niches and relief panels.

Rossi’s most important secular work was the reconstruction of Ca’ Corner della Regina in the years 1724–7 (fig. 140). Once the home of Queen Caterina of Cyprus, this Gothic palace was the oldest of the four huge palaces owned by the wealthy Corner family, one of the few
families of the old nobility to have remained prosperous as late as the eighteenth century. Like Longhena in his palaces for the Pesaro and Rezzonico families, Rossi turned to Sansovino’s Palazzo Corner at San Maurizio for inspiration for the new palace, but here the effect is cold and inharmonious. The piano nobile, lacking a mezzanine level, is uncomfortably low compared with the other two storeys, while the attic windows are inserted awkwardly into the crowning frieze. At first, the ever-ambitious Corner family had intended to incorporate the site of the adjacent Palazzetto Grimani into their new palace, filling in the canal separating the two sites in the process, but legal difficulties made this impossible. The eventual plan had to be reduced to fit into the area of the old palace together with some small adjoining houses at the back (fig. 141). Though the initial scheme was considerably altered, the cramped effect of the final façade still reflects the compression necessitated by the change of plan. The height could not be correspondingly reduced to improve the proportions, for the Corner family had conceived their palace on a scale to rival Longhena’s almost-completed Palazzo Pesaro just nearby. The sober classical detail of the façade is indicative of the change under way in Venetian architectural taste, though an element of baroque extravagance survives in the enormous keystone
heads of the pianterreno. In the interior Rossi inserted a deliberate Palladian feature into the otherwise traditional Venetian palace plan, placing a colonnaded atrium (probably inspired by the atrium of Palladio’s Convento della Carità) in the front portion of the lower androne. Temanza’s assessment of Rossi as ‘highly expert in the technical side of building, but with little or no understanding of artistic good taste’ is perhaps a comment on the unevenness displayed in his work, but he played an important part in preparing the way for neo-classicism in Venice.\(^7\)

Rossi’s contemporary, Andrea Tirali, was born in Venice and trained as a bricklayer and builder. Like Rossi he was renowned for his technical skill, in recognition of which he was appointed in 1688 as proto alle acque, the engineer in charge of the waterways and sea defences of
Venice. In 1721 he became proto to the Procuratia de Supra, following in the footsteps of such illustrious architects as Sansovino and Longhena. In this capacity he made some skilful repairs to the church of San Marco, and repaved the Piazza, replacing the old herringbone brickwork with the present squared paving. As an architect Tirali leant on the example of Palladio even more heavily than Rossi. This is especially evident in the case of the façade of San Vidal, which is a faithful restatement of Palladio’s San Francesco della Vigna façade. The building work is seen in progress in Canaletto’s early masterpiece known as The Stonemason’s Yard, now in the National Gallery in London (fig. 36). Tirali’s most inspired work was the façade of the Theatine church of San Nicolò da Tolentino, which he erected between 1706 and 1714 (fig. 142). This
church had been built by Vincenzo Scamozzi in the last decade of the sixteenth century. Tirali’s solution was to place a classical temple front, raised on a flight of steps, in front of the huge façade wall. The upper part of the bare wall, still visible behind, should also have been faced and articulated, but the funds, provided by a bequest from Alvise da Mosto, proved insufficient.\(^9\) Although a portico had at one stage been considered for the façade of Palladio’s San Giorgio Maggiore, no projecting temple fronts had yet been built in Venice itself. As befits the Venetian headquarters of an important Counter-Reformation religious order, Tirali’s portico, with its strictly classical fluted Corinthian columns and minimal decoration, is more serious in mood than the only porticoed church façade actually erected by Palladio, that of his Tempietto at Maser.

It is important to remember that Palladio’s heritage, like that of Sansovino, had become an integral part of Venetian architectural tradition. A Palladian revival in Venice had no need of the backing of learned researches like those carried out by Inigo Jones and Lord Burlington in England, for the buildings were always at hand as an inspiration for architects. As mentioned, Tirali and Rossi were both almost illiterate, and certainly had no understanding of the theoretical concepts of harmony and proportion contained in Palladio’s *Quattro libri*. Their dependence on Palladian prototypes was probably hardly conscious, and certainly did not constitute a deliberate ‘revival’. They were simply responding to a growing taste in Venice for a more sober, classical architectural style, and Palladio’s buildings were the most obvious, most easily accessible source of ideas in this vein.

**Giovanni Scalfarotto (c.1670–1764) and Giorgio Massari (1687–1766)**

As the eighteenth century advanced, architecture began to reflect the growing contradictions inherent in a society on the brink of collapse. It was as if the sober style of the buildings could ill conceal the shallowness and frivolity of the life that they sheltered. The schizophrenic mood of the century is already evident in the parish church of San Simeon Piccolo, rebuilt between 1718 and 1738 (fig. 143). This building is the masterwork of Giovanni Scalfarotto, who was the son-in-law of Domenico Rossi and uncle of Tommaso Temanza.\(^10\) Inspired by Tirali’s newly finished classical portico at the nearby church of San Nicolò, he turned to a true classical prototype, the Pantheon in Rome. There is no evidence that Scalfarotto ever visited Rome himself, and certainly he captured little of the Pantheon’s imposing solidity and massiveness. Like Palladio in his Tempietto at Maser, he revived the theme on a diminutive scale, thus disguising the seriousness of his intentions. The propor-
tions, too, are transformed, with the soaring dome more closely related to Longhena’s Santa Maria della Salute at the opposite end of the Grand Canal than to the Pantheon (fig. 126). The brightly lit interior is also a reduced version of the Pantheon, with its pedimented aedicules and its distinctive shallow recesses, each containing free-standing columns supporting a straight architrave. Yet, despite the imposing effect of the huge all’antica Corinthian capitals, echoing those of the portico, the mood is light and elegant, and the whole conception is infused with a certain rococo charm.

By far the most talented Venetian architect of the period was Giorgio Massari, who was born in the parish of San Luca in 1687. He died in Venice in 1766. More than any of his rivals, he succumbed to the influence of rococo taste, but he absorbed its elements into his architecture with such delicacy and sureness of touch that his style never degenerated into fussy frivolity. Like his great contemporary Giambattista Tiepolo, with whom he collaborated on several occasions, he seems to have
accepted the traditional values of Venetian society and culture, ignoring its more degenerate side. In a sense he resolved the contradictions inherent in his background by absorbing both its sober and its light-hearted aspects, without consciously attempting to suppress either tendency.

Massari worked extensively on the *terrazero* as well as in Venice. His first Venetian masterpiece was the church of the Gesuati, begun in 1726 and consecrated ten years later (fig. 137). The minor religious order of the Gesuati had been suppressed in 1668, and its buildings taken over by the Dominicans, who decided to rebuild the church and monastery for their own use.

Massari's scheme for the Gesuati was based on the more modest Oratorian church of Santa Maria della Fava, begun by Antonio Gaspari in 1705 and completed by Massari himself. From this church he borrowed the rectangular plan with cut-off corners, and the triumphal-arch rhythm of the nave elevation, its giant order arranged in pairs enclosing niche statues and relief panels, a system deriving originally from Palladio's church of the Redentore on the opposite side of the Giudecca canal (figs 144 and 123). The single nave, interconnected side chapels and choir concealed behind the high altar also follow the arrangement of the Redentore. Just as Longhena at the Salute had risen to the challenge of siting his church with Palladio's two masterpieces, San Giorgio and the Redentore, in full view, so Massari had to respect these Palladian precedents in his design for the Gesuati. Like Longhena he borrowed from the Redentore the motif of the domed chancel flanked by twin bell towers, but the more pointed dome and the onion-shaped *cupola* of the little turrets betray the eighteenth-century context. The façade, too, is a tribute to Palladio, with its four giant Corinthian half-columns supporting a great triangular pediment, but unlike Sardi's San Lazzaro and Rossi's San Stae, which adopted the same simplified Palladian scheme, there are no baroque legacies — no broken pediments, no crowning statues. Here, instead, the characteristic sobriety of eighteenth-century Venetian exteriors prevails.

The interior of the Gesuati is a fine blend of classical and rococo elements (fig. 144). The giant Corinthian half-columns, echoing those of the façade, replace the flat pilasters of the interior of Gaspari's Santa Maria della Fava to give a greater monumentality. But in the ceiling, where delicate, curving rococo frames, designed by Massari himself, surround Tiepolo's fresco decorations, the solidity evaporates into a still lucid daintiness. It is significant that the paintings in no sense conflict with the architecture, nor do they undermine the essential architectonic structure by means of the illusionistic devices that Tiepolo so often enjoyed. The slender ribs of the ceiling vault continue the verticals of
the wall elevation; and the bright, even lighting, once again recalling Palladio’s Venetian churches, enhances the clarity of the design.

The stylistic unity of the Gesuati, where the architecture, sculpture and painted decoration were all completed within a few decades, also characterizes the church that Massari erected for the foundling hospital of Venice, the Ospedale della Pietà.¹³ Established in 1346, this was the oldest of the four big State hospitals, and by the eighteenth century its ancient buildings were in a shameful state of repair. Like the other three
hospitals the Pietà was famous for its choir of orphan girls, who also had a high reputation for instrumental playing. Many of Vivaldi's finest concerti and choral works were written for the Pietà. But the hospital was becoming conscious of the deficiencies of the shabby setting in which the musicians had to perform, especially since its rivals, the Incurabili, the Mendicanti and Ospedaletto, all had the advantage of newer churches erected by celebrated architects.

In 1736 Massari won a competition for the design of the new church and orphanage of the Pietà, the two other entrants in the competition being the aged Tirali and an amateur architect and geometry teacher called Padre Pietro Foresti. Massari's design survives in a drawing in the Museo Correr (fig. 145). In the event the hospital buildings were never erected, despite the fact that part of the old orphanage had been demolished to make way for the new church and its inmates lodged with foster families. The church itself was begun in 1745 and consecrated in 1760, although the façade was not built until the early twentieth century.

Defending himself against his most fervent rationalist critic, the Franciscan friar Carlo Lodoli (whose role will be discussed below), Massari admitted that he had tried to base his design on established Venetian traditions, because he believed this would be more acceptable to the public than a totally revolutionary conception. The rectangular plan with rounded corners, the four nave altars and the separate raised chancel are derived from Sansovino's Incurabili church, though Massari chose a low vault in place of Sansovino's flat wooden ceiling (figs 147, 113 and 112). Like Scamozzi at the Mendicanti he added an entrance vestibule, similar
146 (above) Santa Maria della Pietà, interior, by Massari, begun 1745

147 (left) Santa Maria della Pietà, plan (after A. Massari, Giorgio Massari architetto veneziano del Settecento, Vicenza, 1971, fig. 77)
in shape to the choir of the Gesuati, to prevent street noise from disturbing the concerts (figs 125 and 147). As in the Gesuati, Massari used a paired order to articulate the nave, but in this case the huge half-columns are replaced by a small pilaster order, to emphasize the simplicity of the oval space (figs 144 and 146). Once again, Massari himself designed all the details of the interior decoration, including the pretty rococo pulpit and confession boxes and the wrought-iron screens of the raised choir galleries. But here, too, the integrity of the architecture is strictly preserved. The ceiling frescos, again executed by Giambattista Tiepolo, are contained in simple compartments, the great central oval reflecting the ground-plan of the nave.\textsuperscript{14}

That the style of the interior of the Pietà is more restrained than that of the Gesuati in part arises from the more modest circumstances, for the state hospitals could not expect the wealth enjoyed by the Dominican order. There is no doubt, however, that the desire to impress was one of the principal aims of the Pietà in rebuilding their church. The contemporary records speak of the church as if it were a concert hall, while its religious function fades into the background. A huge sum of money was spent on widening the riva in front of the hospital to create a grander prospect, yet the more urgent project, the new orphanage, was put aside for lack of funds. The sobriety of the Pietà interior therefore suggests that, despite his overt dependence on older traditions and his enjoyment of fine decorative detail, Massari himself was responding to the ever-increasing desire for a more severe style of architecture in mid-eighteenth-century Venice.

\textsuperscript{14} Palazzo Grassi, by Massari, begun 1748
Massari's most important secular work was the huge palace that he built for the Grassi family on the Grand Canal at San Samuele (fig. 148). Such commissions were by this time extremely rare, for few Venetian families now had the resources with which to build fine palaces. The Grassi, originating from Chioggia, were very recent members of the Venetian patriciate — they had been admitted to the nobility as late as 1718. In this palace, begun in 1748, Massari again showed his respect for older traditions, as if to validate the family's new status. Like Rossi in the Palazzo Corner della Regina, he based the façade on Sansovino's Palazzo Corner at San Maurizio (fig. 107), reducing the scheme to its
simplest elements. With a broader site at his disposal, however, Massari was able to avoid the cramped proportions of the façade of the Ca' Corner della Regina (fig. 140). Like Rossi, too, Massari felt himself challenged by the example of Longhena, whose Ca' Rezzonico stood on the opposite bank of the Grand Canal (fig. 131). In the interior he borrowed Rossi’s idea of the colonnaded atrium, while the imposing double staircase must be inspired by Longhena’s monumental staircase in the monastery of San Giorgio Maggiore (fig. 129). The plan is not typical of Venetian palaces, but is more characteristic of *terraferma* architecture with its courtyard in the centre of the block, the position favoured by Sansovino but otherwise rarely found in the city’s palaces. The court is completely surrounded by a portico of severe Doric columns supporting a straight architrave, its frieze decorated only by triglyphs and panels of coloured marble (fig. 149). The austerity contrasts sharply with the pretty rococo decorations of the interior of the palace. Intended to imitate the private houses of antiquity, the courtyard is the most classical feature that Massari ever introduced in his work, and indicates that although committed neo-classicists disapproved of his rococo leanings, he went far towards satisfying their demands at the end of his life.

*Antonio Visentini (1688–1782) and Tommaso Temanza (1705–1789)*

In comparison with Massari, the architectural output of Antonio Visentini was fairly insignificant, although he had great influence.\(^{16}\) He was trained as a painter in the studio of Pellegrini and was also a proficient engraver. Nowadays he is chiefly remembered for his engravings after Canaletto’s views of the Grand Canal and his book of illustrations of the islands of the Venetian lagoon, the *Isolario Veneto*. His only important building was the small palace on the Grand Canal that he designed for the English connoisseur and collector Consul Joseph Smith, the famous patron of Canaletto (fig. 150).\(^{17}\) The façade of Smith’s palace, now the Palazzo Mangili-Valmarana, completed in 1751, was greatly admired at the time, but it is not a memorable composition. Its sober classical elements are combined in a somewhat awkward manner, giving a crowded effect in the elevation of the *piano nobile*. The top floor was added later by Visentini’s most successful pupil, Giannantonio Selva.

The chief contribution of Visentini to Venetian architecture was a didactic one. He was a founder member of the Accademia di Belle Arti, where he taught ‘architettura prospettica’ from 1761 to 1778. He was the author of numerous theoretical works on architecture, most of which exist only in manuscript, but which give some account of the ideas that he propagated. His approach was dogmatic, pedantic and strictly clas-
Palazzo Mangilli-Valmarana, by Antonio Visentini, for Consul Joseph Smith, completed 1751

His criticisms were vehement – he disapproved of Piranesi for his *capriccio* element, of Massari for his rococo tendencies, of Rusconi for his misinterpretations of Vitruvius, and of Andrea Pozzo for corrupting the taste of young architects. His admiration was chiefly reserved for Palladio and the ruins of antiquity, including the works of the ancient Greeks, which were finally becoming known in Venice through the publications of British authors, James Stuart and Nicholas Revett, and Robert Wood. Ironically, despite his rigid views, Visentini himself never discarded a fanciful, decorative element (inherited from Pellegrini) in the frames and frontispieces of his engravings. Once again we are reminded of the contradictory forces at work in Venetian culture of the time.

Tommaso Temanza is a significant figure in the history of Venetian architecture, though like Visentini his importance lies more in his writings and teachings than in his work as a practising architect. His scholarly, authoritative book, the *Vite dei più celebri architetti e scultori veneziani*, published in 1778, is probably his greatest personal
achievement. This work, modelled on Vasari’s *Lives of the Artists*, is an indispensable source for students of Venetian architecture or sculpture. Like Visentini he was also a stimulating teacher of architectural students at the Accademia, taking a special interest in his most talented pupil, Giannantonio Selva.

Temanza began his architectural career in the studio of his uncle Giovanni Scalfarotto, and like many other native Venetian architects before him he spent most of his life in Venice itself. His technical knowledge appears to have been sound; he was, for example, the architect consulted over the structural problems of Sansovino’s Fabbriche Nuove di Rialto.\(^{19}\) The only two buildings worthy of note that he himself erected in the city are the church of the Maddalena, much loved by Venetians especially as a setting for weddings, and a garden pavilion behind the Palazzo Zenobio at the Carmini.

The Maddalena is a small, circular, domed church begun in 1761 and situated on one of the prettiest *campi* in the city (fig. 151).\(^{20}\) Like his uncle’s design for San Simeon Piccolo this church is evidently inspired by the Pantheon, which Temanza himself never saw in person. Here the
restricted site did not allow space for a free-standing portico, and instead the pediment over the entrance is supported by four Ionic half-columns. The Ionic order, with its feminine connotations, was obviously suitable for a church dedicated to Mary Magdalene, but Temanza chose the plainest possible architectural elements. The effect of austerity contrasts sharply with the richness of the Corinthian porticoes of San Simeon Piccolo and San Nicolò da Tolentino (figs 142 and 143). The interior is boldly articulated by pairs of three-quarter columns enclosing niches. Like San Simeon Piccolo, the Maddalena has a domed chancel with apsed ends. The four nave altars are set in deep rectangular niches, as if to emphasize the thickness of the walls.

The same paring down of architectural detail, which was to be one of the principal qualities of full-blown neo-classicism, is also apparent in the little summer house, begun in 1773 (fig. 152).21 This was not as modest a commission as one might imagine, for the Zenobio family, nobles since the mid-seventeenth century, were said to be the richest in the city. They were enlightened and enthusiastic patrons, and their palace was decorated by the finest painters of the day. Nevertheless, Temanza's

152 Pavilion in the garden of Palazzo Zenobio, by Tommaso Temanza, begun 1773
garden pavilion is visually far less satisfying than the Maddalena. The large blank expanse of wall of the upper storey, articulated only by slim Corinthian pilasters, rises unhappily above the projecting loggia below. With its four Ionic columns and unusually designed balustrade, the loggia is more elegant, but the overall composition remains somewhat awkward. The large piers on either side of the loggia have no order whatever, showing that Temanza was responding to the new interest in functional rather than decorative architecture.

Giannantonio Selva (1751–1819)

The introspective, almost inbred character of Venetian architectural activity in the seventeenth and eighteenth centuries seems curious when one considers that Venice was one of the great tourist centres of Europe, a city where encounters with foreigners must have been a daily occurrence. While painters and musicians travelled widely, architects showed little inclination to expand their horizons beyond Venice and the Veneto. A rare exception was Piranesi, who was trained as an architect in Venice and who travelled to Rome in 1744, but once there he soon gave up architecture to become an engraver.

The first Venetian architect proper since the time of Palladio to study intensively outside the Veneto was Giannantonio Selva, who brought neo-classical architecture in the city to fruition at the end of the eighteenth century. His father, the State optician of Venice and a well known maker of optical instruments, enthusiastically supported his son’s career as an architect and financed his travels abroad, being content to place his two other sons in the family business. At first Giannantonio studied architecture at the Venetian Academy where his teachers included Visentini and Temanza. In 1778 he set off for Rome where he studied for three years. Throughout this time Temanza kept up an affectionate correspondence with his pupil, but undoubtedly the greatest influence on the young architect came from the group of artists of various nationalities then working or studying in Rome. He formed a close friendship with his compatriot Canova and also became a friend of Quarenghi, the architect who later made his career in Russia. After his stay in Rome, Selva travelled widely around Europe, visiting France, England, the Netherlands and Vienna before he finally returned to settle once more in Venice.

This was the period in which the great risorgimento of the arts, which we now call the neo-classical movement (the name applied to it in the mid-nineteenth century), united artists throughout Europe in a joint quest for a new, rational, austere style purged of rococo frivolity and
Palladianism and Neo-Classicism

Although artistic ideas were diffused rapidly across state boundaries over much of western Europe, the Venetian Republic held out as long as possible against the influx of new, enlightened ideas, which it resisted by means of censorship and the State Inquisition. Despite the city’s insularity, one of Europe’s most radical thinkers on architecture in the first half of the eighteenth century had been a Venetian, the Observant Franciscan friar Carlo Lodoli. As a young man Lodoli travelled to Rome and other parts of Italy, before returning to Venice in 1720 to open a private school. There he taught the most modern scientific and philosophical ideas and influenced a whole generation of young Venetian patricians. The Republic was somewhat suspicious of his activities, although he was later accepted and even appointed chief censor. He was a regular visitor at the house of Visentini’s patron, the English consul Joseph Smith, which was one of the few places in Venice where new and unorthodox ideas were freely discussed. As far as we can judge from contemporary accounts of his ideas, Lodoli’s views on architecture were radical in the extreme. He rejected any kind of decoration that was not strictly functional, even daring to criticize such venerated models as the architecture of antiquity and that of Palladio. At a time when a sober neo-Palladian style was becoming established in Venice his ideas were too extreme to gain wide acceptance, but as the century advanced it became more and more difficult for Venice to insulate herself against radical currents from outside. By 1787, when Lodoli’s former pupil, the Venetian noble Andrea Memmo, published his Elementi dell’architettura lodoliana, at last presenting the public with a reasonably accurate version of his master’s views, the Venetian intelligentsia was ready to understand and even to accept some of these innovatory doctrines. It was in this more open-minded climate of ideas that Selva began his architectural career. The international risorgimento of the arts was at last beginning to penetrate the conservative Venetian mentality.

In the atmosphere of political ferment that pervaded Europe in the late eighteenth century this artistic quest gathered momentum rapidly, although its precise links with ideas in the political spectrum are extremely hard to define. The huge scale on which many neo-classical architects conceived their grandiose ideas meant that they depended on the wealthiest, most powerful patrons to implement their designs, and thus could not ally themselves easily with the cause of popular, or even bourgeois, revolution. Selva’s first important work, the new Fenice theatre in Venice, provides a fascinating illustration of the complexity of the relationship between art and politics at the end of the century.

In retrospect this would appear to have been a highly unpropitious time for the founding of a great new theatre, but in the event all the obstacles facing this ambitious project were overcome with astonishing ease and rapidity.
According to the city’s sumptuary laws, the Republic had restricted the number of theatres in Venice to seven. One of these was the theatre of San Benedetto, which was leased by a group of wealthy nobles and citizens known as the Nobile Società. In 1787, finding themselves obliged to give up possession of the San Benedetto theatre, the Società resolved to found a new one to rival the greatest opera houses of Europe. It is an indication of their power and influence in the city that within only a few months the Senate had granted permission for the erection of an eighth theatre ‘to add to the beauty and dignity of the Dominion’. A sizeable if irregular site in the centre of the city, near the church of San Fantin, was purchased, and in 1789, at the very climax of the French Revolution, the Società invited architects to submit designs for the new theatre, clearly oblivious of the far-reaching implications of the political upheavals in France.

Four projects were short-listed, two by Venetian architects and two by outsiders. Eventually the design of Giannantonio Selva was selected, to the intense annoyance of his Venetian rival, Pietro Bianchi, who vigorously contested the decision, claiming that only his own design satisfied all the requirements set out in the original brief. After months of wrangling a compromise was reached by which Bianchi was awarded the prize of 300 sequins, while Selva’s design was the one actually adopted. Despite its élite patronage the new theatre aroused great popular interest, evidently fired by this colourful dispute. Bianchi, son of a gondolier poet, certainly did not lack popular support, although in the end Selva’s theatre itself became a focus of civic pride for the Venetian people.

In the changing artistic climate of the city, even the Nobile Società, which was effectively an organ of the Establishment, preferred Selva’s innovative project to Bianchi’s more conservative design, which was a variation on the theme of Palladio’s Basilica in Vicenza. Selva’s writings stress his admiration for the architects of sixteenth-century Venice – Sansovino, Sanmicheli, Palladio and Scamozzi – but in his own work he drew on a far wider range of ideas. Like other more avant-garde Venetians of this time he felt a particularly strong sympathy for English culture; he owned a volume of drawings by Inigo Jones and was enthusiastic about the work of Robert Adam. Neo-classical architects of his generation in Rome were learning to select only the most sober and dignified ideas from the works of the ancients, and evidently Selva, too, carried out his studies of Roman antiquities with discrimination. In common with many of his contemporaries elsewhere in Europe he was also a great admirer of ancient Greek architecture which, in spite of centuries of trade with the Byzantine empire and Venetian colonization in the eastern Mediterranean, had never before had a direct influence on the architecture of the city.26
The scheme was, of necessity, an elaborate one, involving the demolition of existing buildings on the site, the excavation of a canal to provide access for theatregoers arriving by boat, and the laying of foundations capable of supporting the huge structure. Yet the whole project, including the decoration of the interior, was completed within a mere twenty-seven months. The theatre opened on 16 May 1792 with an opera by the Neapolitan composer Paisiello, only five years before the fall of the Venetian Republic. The cost, which amounted to more than 400,000 ducats, was met by the members of the Nobile Società, each one making a contribution proportional to the value of his own box in the new theatre. Although the financial state of the Republic was by this time extremely precarious, and numerous noble families were impoverished, a select few obviously still commanded considerable wealth. It is typical of the eighteenth-century Venetian order of priorities that they should have chosen to devote such a large sum to the building of an opera house, as if refusing to recognize the insecurity of their position.

Selva's original design was substantially altered during the nineteenth-century modifications to the interior, after it was badly damaged by fire in 1836. Luckily the two principal façades, one facing Campo San Fantin, the other overlooking the new canal at the back, survived not only the first fire, but also the great conflagration that once again destroyed the whole interior during the night of 29 January 1996.

In the exterior of the Fenice we see evidence of Selva's search for a new, severe idiom suited to the seriousness and moral conviction that projected the neo-classical movement (fig. 153). As we have seen, the reaction against the baroque had begun long before in Venice, but it was Selva who finally cast off the superficial trimmings of the rococo and freed himself from Palladio's powerful example. The façade on Campo San Fantin, which led into the main foyer and ante-rooms of the theatre, has the restraint and stately bearing that characterize the best of neo-classical architecture. Here, more than at any stage in Venetian architecture since the Gothic period, the flat wall surface plays an expressive part in the design. No attempt is made to mask the weight-bearing walls behind a veneer of classical columns or pilasters and sculptural decoration. The decorative elements are confined to the central section. In the upper part statues of Music and Dance are surmounted by masks representing Tragedy and Comedy, the main divisions of the antique theatre. A relief of a phoenix, the emblem of the new theatre, fills the lunette over the central window, while the panel above states simply 'SOCIETAS MDCCXCII', commemorating the Nobile Società and the date of completion of the original theatre. The projecting Corinthian portico below adds grandeur to the main entrance, raised on a flight of steps, and gives an emphatic third dimension to the façade at its climax. Elsewhere decoration is reduced to a bare minimum, the pilasters at either end having
neither bases nor capitals. Selva’s teacher, Temanza, had already used this simplified pilaster order in his Loggia Zenobio, which also prefigured the central projecting portico and flat upper wall surface; but the effectiveness of the earlier design had been reduced by its distracting details and awkward balance of forms. At the rear of the Fenice a simple rusticated waterfront arcade, surmounted by a plain upper wall articulated only by a rudimentary Doric frieze and pierced by three simple pedimented windows encloses the great stage of the theatre. Distinguished visitors arriving by boat were deposited at a side entrance beside the slender staircase turret. The bareness of the Fenice exteriors would have made a deep impression on Venetian artistic sensibilities, long attuned to theatrical, heavily encrusted Istrian-stone façades. Some conservative critics
objected to Selva’s unconventional use of classical language, but in general Venetian taste was now ready for innovation and change.

In the interior, the horseshoe-shaped auditorium was widely appreciated, for it not only created a grand, imposing space but also allowed most of the spectators to see and hear easily (fig. 154). Selva claimed to have borrowed this form from the Teatro Argentina in Rome, although much closer at hand Maccaruzzi’s Teatro Balbi in Mestre, built some ten years before, had a similar plan. The original appearance of the auditorium is now known only from Selva’s ground-plan and from written accounts. We can assume, however, that with its elaborate painted decoration it did not echo the austerity of the façades, repeating yet again the contrast between exterior and interior that had characterized so many eighteenth-century Venetian buildings.

The first really successful production to be staged at the new theatre was Cimarosa’s opera Gli Orazi e i Curiazi early in 1797, on the eve of the fall of the Republic. The collapse of the Venetian ancien régime, which was to lead to far-reaching changes in the appearance of the whole city, actually disrupted the activities of the Fenice remarkably little. The Nobile Società survived the upheavals, though threatened by serious economic difficulties; and when Napoleon visited the city in 1807 Selva

155 Teatro la Fenice, auditorium by Selva, rebuilt with modifications after the fire of 1836; again destroyed by fire 1996
himself was employed to convert six of the central boxes into a single, grand imperial box. Operas by such composers as Rossini, Bellini and Donizetti assured the theatre of survival, until the disastrous fire of 1836. The theatre lived up to its emblem, the phoenix, and was completely restored in the following year. Selva’s interior was changed in a number of respects and the whole theatre was redecorated in a florid, late Empire style (fig. 155). The chief alteration to the fabric was the diversion to the centre of the auditorium of the main entrance from the ante-rooms, which Selva had placed at one side because of the peculiar shape of the theatre’s site. Further modernizations followed in 1854 and 1878, while a succession of operas by Verdi and later Wagner and Puccini (to name only a few) sustained the artistic life of the opera house. The masterpieces actually commissioned by the Fenice included Verdi’s Rigoletto (1851), La Traviata (1853) and Simon Boccanegra (1857) – as well as Attila, of course! Paradoxically, I due Foscari, which is so quintessentially Venetian, was first performed in Rome in 1844, its subject rejected by the Fenice for fear of offending local sensibilities.27

Like the fortunes of his theatre, Selva’s own career as an architect was little disrupted by the fall of the Republic; but since, like all neo-classical architects, he depended chiefly on public patronage to implement his monumental ideas, the rest of his activity is best considered in the context of the very different political situation of the early nineteenth century.
Chapter 9

Venice since the Fall of the Republic

The end of the Venetian Republic in 1797 was not a glorious event. Only a few gestures of opposition hindered the Napoleonic troops as they overran the Veneto. In Verona the people staged a brave resistance, which became known as the Pasque Veronesi because it took place at Easter. Later, at the entrance to the Venetian lagoon, an invading French schooner, the Libérateur, was bombarded and captured by a Venetian ship. But by 30 April 1797 French guns on the mainland were audible in the Palazzo Ducale as the last doge of Venice, Ludovico Manin, conferred with his advisors. On the following day, 1,100 years after the appointment of the first doge, the Republic simply voted itself out of existence, when the Maggior Consiglio agreed to Napoleon’s request for a change in the constitution by the overwhelming majority of 598 votes to 74.¹

Napoleon had shrewdly taken advantage of the nascent spirit of revolution in Italy, and this made the Venetian nobility all the more aware that their élite government had no future. The aristocracy was declining in wealth and numbers. They had managed to remain in office so long thanks only to a policy of strict political censorship, aided by the innate conservatism of the Venetian people. Realizing that the charade had to end, they merely wished the termination to be as painless as possible. Ironically, it was the ordinary people of Venice who protested against this submission, but their cries of ‘Viva San Marco!’ were ineffectual.

In the event, the new municipal democracy instituted by the French troops was short lived. At the treaty of Campoformio in October 1797 most of the Veneto was handed over to Austria. This first phase of Austrian domination lasted until 1805. In that year Napoleon, spurred on by his brilliant victories at Vienna and Austerlitz, took over the Veneto as part of his new Kingdom of Italy. By this time he had abandoned any pretence of democratic government. In the previous year he had declared himself emperor of France, and his new administration in Italy was unashamedly regal. In 1807 he made a triumphal entry into the city of Venice to pay a ten-day visit.
The Napoleonic Kingdom (1805–1814)

The period of Napoleonic rule was one of great political, social and economic upheaval in Venice. Despite the poverty of some members of the nobility, the Venetian economy as a whole had not declined too seriously during the eighteenth century. Manufacturing industry, shipping and overseas trade were all still profitable, and the long period of peace from 1718 to 1797 did not necessitate huge outlays on warfaring. But after the fall of the Republic the economy collapsed. Major commercial ventures were unthinkable in the atmosphere of uncertainty and political turmoil. More than 100 merchant ships were broken up, and many prosperous Venetian families were ruined. Trade slumped as the domination of Adriatic shipping passed to Trieste. The monetary system was put in chaos and the land market crashed, allowing numerous Venetian palaces to fall into foreign hands. The social order of the city was turned upside down, leading to a dramatic fall in population. Parish boundaries were altered, with flagrant disregard for their great antiquity. Smaller parishes were amalgamated, and some of the more prominent mendicant churches, such as the Frari and San Francesco della Vigna, were converted into parish churches. The religious orders and scuole were ruthlessly suppressed, and their property seized and redistributed. Many of their finest works of art were sold or removed to France, while monastic churches, nunneries and friaries were demolished or put to use as warehouses, mills or ammunition dumps.

These iconoclastic aspects of the Napoleonic administration in Venice are well known. It is perhaps less often realized that they went hand in hand with policies of a more constructive and enlightened kind, intended to improve the urban environment of the city, though these, too, were implemented with little sensitivity. By its very nature Venice was ill-adapted to the ideals of neo-classical city planning fostered in Napoleon’s dominions. There was far too little space on the archipelago for broad, straight avenues and imposing public monuments. By no stretch of the imagination could Venice be made to resemble Paris or Milan. Of course, these ideals were not all ill-conceived. Badly needed improvements to street lighting and fire fighting equipment, repairs to streets, bridges and fondamente (waterfronts), and the dredging of canals were all given high priority. It was also resolved to spend at least 100,000 lire annually on modernizing the port facilities.

The plans for improving the appearance of Venice were formulated by a body called the Commissione all’Ornato. It was the Venetian architect Giannantonio Selva who emerged as the moving spirit behind these ambitious policies. At last he had the opportunity to realize some of his more grandiose neo-classical ideas. His overall plan for Venice is lost, but his design for the new gardens at Castello gives some sense of his
bold, uncompromising approach. A broad, straight, new highway, the Via Eugenia, called after the viceroy (now renamed the Via Garibaldi), was made by covering over the Rio di Sant'Anna, in order to create a grander approach to San Pietro di Castello. Selva's elaborate formal gardens, which led off the new street, occupied the site of several convents and monasteries, which were obliterated. Although Selva himself was dismayed by Napoleonic demolitions of Renaissance monuments in the city, he offered no protest at the destruction of the medieval heritage, for the Byzantine and Gothic styles were so alien to his neo-classical taste. The Giardini at Castello, now the home of the Venetian Biennale exhibitions, have been much altered since Selva’s time. Their original appearance is known from nineteenth-century maps, which show a complex arrangement of long, stately avenues and more intimate ronds points.

It is hardly surprising that so vigorous and uncompromising a new regime should have wished to make its imprint on Piazza San Marco. The whole Piazza was a symbol of the power of the Serenissima. Its traditions and its ideology were documented, directly or indirectly, in every building, every stone carving and every mosaic. To underline the new ideology, the statues of Doge Barbarigo on the Torre dell'Orologio and of Doge Foscari on the Porta della Carta were removed in 1797. But the doge of Venice had never been a monarch; and no other Venetian had ever been commemorated on a public monument in the Piazza. Naturally, the Napoleonic government felt the need to give a more regal air to the city centre; and this was done with a predictable sureness of aim and characteristic disregard for the artistic heritage of the Venetian Republic.5

The Procuratie Nuove on the south side of the Piazza were speedily converted into the new royal palace. As well as the rearrangement and redecoration of the rooms, this conversion also led to the destruction in 1807 of the historic granaries on the south side, on the quayside site known as the Terra Nova (fig. 83). This huge crenellated brick building, dating back to the fourteenth century, was demolished because it obstructed the view of the lagoon from the royal apartments. Its massive form had for centuries been an imposing landmark in the view of Venice from the Bacino, and the walled garden that replaced it did little to fill the gaping void on the waterfront, or to improve the amenities of the city, for it was reserved for residents of the palace.

The chief deficiency of the new royal palace was considered to be the absence of a grand ballroom for imperial receptions. Eventually it was decided to locate the ballroom in a new wing to be built on the west side of Piazza San Marco, facing the church. This involved what was perhaps the most notorious of all Napoleonic demolitions in Venice; despite strong local opposition the existing buildings on the site – the church of
San Geminiano, together with the adjoining sections of the Procuratie Nuove on one side and the Procuratie Vecchie on the other — were razed in 1807. The façade of San Geminiano was Jacopo Sansovino's most conspicuous church façade, and Venetians still felt a sense of loyalty to the great sixteenth-century architect who had made so deep an imprint on the configuration of their city. Fortunately, when the church was demolished, the abbot Moschini managed to rescue the architect's remains and take them to the safety of the Somascan monastery at the Salute.⁶

Work on the new west wing of Piazza San Marco started in 1808. This range of buildings, called the Ala Napoleonica, was designed by an architect from Modena, Giuseppe Maria Soli, who took over the project in 1810 (fig. 156). It was largely completed by 1814, when a huge bronze 'n' was erected in the centre of the attic. The ballroom itself, reached by Soli's grand ceremonial staircase in the centre, was completed by the Sienese architect Lorenzo Santi after the return of the Austrians.

The Piazza elevation of the Ala Napoleonica was in some respects not insensitive. The two main storeys reproduced the forms of the repeatable bay system of Sansovino's Library, in order to harmonize the new wing with the rest of the buildings in the Piazza. The design was brought up to date by the addition of a high attic, needed to conceal the lofty vault of the ballroom. This was overtly neo-classical in style, with its statues of Roman emperors and all'antica reliefs. What Santi failed to provide was a visual replacement for San Geminiano, that is to say, a strong central emphasis to serve as a foil for the great church at the oppo-
site end of the Piazza. The bronze ‘N’ obviously had to be hastily removed in 1815 - together with a colossal statue of Napoleon which had been erected in front of the Palazzo Ducale in 1813 - and without the emperor’s initial the western side of the Piazza was left without a focus.

The rebuilding of the nearby parish church of San Maurizio, modelling its interior on that of the demolished church of San Geminiano, did little to reconcile the city’s inhabitants to their loss. San Maurizio, begun in 1806, was the work of Giannantonio Selva and the secretary of the Venetian Accademia, Antonio Diedo (fig. 157). The façade of the new church makes no reference to that of San Geminiano, but is a sober neoclassical demonstration piece. Its plain, rectangular wall surface, defined by a rudimentary serliana, is decorated only by two inset panels with relief carvings and by a simple pedimented door and window frames. The crowning pediment encloses a relief depicting the deaths of Saint
Maurice and the soldiers of his Roman legion in Gaul, after refusing to take part in heathen sacrifices, a subject that was perfectly suited to the neo-classical liking for stoical stories in antique settings.

Selva left few other traces of his creative activity in Venice. He contributed a dignified design for a municipal cemetery on newly reclaimed land adjoining the island of San Michele, obliterating the nearby island of San Cristoforo. This project, the outcome of the new régime’s desire to end the unhygienic practice of burial in the city itself, suffered from a pompous remodelling in the 1870s. Unfortunately, Selva’s scheme for a huge studio on the Zattere for his friend, the sculptor Antonio Canova, was never executed. A number of his drawings preserved in the Museo Correr record other bold and imaginative schemes that he produced in these years. But in general his conceptions were too ambitious to come to fruition during such a short-lived reign. The eminence that he reached in Napoleon’s eyes is clear from the fact that he was commissioned in 1813 to design an enormous monument to the emperor to be built on Mont Cenis in France. This, too, came to nothing because of Napoleon’s fall.7

The motive for erecting the colossal statue of Napoleon in Piazza San Marco was ostensibly to commemorate the establishment of a free port on the island of San Giorgio, where goods could be traded without the burden of customs duties. The prosperity of Trieste, which had been a free port since the eighteenth century, was evidence of the advantages of tariff-free trading at this time. Although the statue of Napoleon was soon removed from Piazza San Marco, a more permanent mark was left on the island of San Giorgio itself. Improved harbour facilities and quayside buildings were provided, and the new status of the island was symbolized by two Istrian-stone lighthouse towers designed in 1813 by Selva’s pupil Giuseppe Mezzani, himself a professor of architecture at the Venetian Accademia (fig. 158).8 These are perhaps the most attractive legacy of the Napoleonic period in Venice. Standing guard beside Palladio’s church of San Giorgio Maggiore, the towers pay tribute to the earlier master, with their windows set into rusticated walls like those of Palladio’s Villa Malcontenta. Even at the height of the neo-classical period, Palladian ideas still played an important part in the teachings of the Venetian Accademia. However, the elegant simplicity of the open lanterns that surmount the two lighthouses bear the stamp of neo-classicism.

Although Napoleon’s Kingdom of Italy was short-lived, it established certain attitudes towards the architectural heritage of the city that were to survive through much of the nineteenth century. The most significant of these were a continuing readiness to demolish historic buildings and a bold policy of modernization. The neo-classical movement, which had formulated an idiom so well-suited to Napoleonic ideals, had provided
the style adopted by the Establishment. As the chief propagator of neo-classicism, the Venetian Accademia di Belle Arti received full recognition, and in 1807 Giannantonio Selva was given the task of converting the former Scuola and monastery of the Carità into their new premises. Meanwhile, a new organizational framework for local government in the city was founded to replace the Republic's numerous magistracies. Thus the Kingdom of Italy not only bequeathed its policies, but also the administrative machinery with which to implement them.

The Second and Third Periods of Austrian Rule (1814–1848 and 1849–1866)

With the return of the Austrians a period of recession and economic hardship set in. A trade blockade in 1813–14 had only aggravated the already precarious financial situation. The cumbersome bureaucracy
established during the Napoleonic period proved incapable of tackling the huge social problems caused by the economic decline – poverty, infant mortality and unemployment. The changing social conditions in the city are reflected in the fact that the number of people in domestic service fell by as much as 90 per cent in the early nineteenth century. Heavy taxation penalized property owners so severely that many palaces and houses were demolished, simply because their owners could not afford to maintain them. The Commissione all’Ornato lamented the decay in the fabric of the city, but had few powers to remedy the situation.9

Eventually, however, trade began to make a partial recovery. In 1830 the whole city was granted the status of a free port, and a new class of rich Venetians began to grow up, consisting of the more enterprising members of the borghesia. Nevertheless, for the Austrians Trieste remained the principal Adriatic seaport. Venice was valued more for her strategic and military importance than as a major commercial outlet for the huge Habsburg empire. To strengthen the city’s defences, the lagoon fortifications were modernized and extended. The Arsenal, no longer important for the construction of merchant ships and galleys, became the chief headquarters of the Austrian armed forces. The severe neoclassical portico of the Corpo di Guardia, designed in 1829 by the engineer Giovanni Casoni, is a potent visual reminder of the Austrian
presence in the Arsenal (fig. 159). The baseless Doric order, drawing its inspiration from Greece rather than Rome, reflects the archaeological interests of the scholarly Casoni. The Greek Doric order, one of the favourite themes of neo-classical architects throughout Europe, is here reduced to its most basic geometric shapes. Such severity – appropriate to the original function of the building – was not to be seen again in Venetian architecture until the Age of Fascism.

As part of the Austrian empire, Venice was effectively under occupation. Even the office of patriarch became a Habsburg appointment. Although Austrian influence can still be detected in the city today, particularly in the wares of the pasticcerie, the Venetian people maintained a separate identity throughout the period of Habsburg domination. While Austrian officers frequented the Caffè Quadri on the north side of Piazza San Marco, Venetians remained loyal to the rival Caffè Florian on the opposite side. Florian’s provided an ambiente that felt intimate, old-fashioned and, above all, utterly Venetian (fig. 160). This atmosphere was reinforced by the present décor, the work of the architect Lodovico Cadorin, which dates from 1858. The style is ostentatiously eighteenth century, though with richer, more sombre colours. It was at Florian’s that Daniele Manin’s revolutionary government was formed during the night.

160 Caffè Florian, Piazza San Marco, décor by Ludovico Cadorin, 1858
following the dramatic overthrow of the Austrians on 22 March 1848. This new democratic Venetian Republic lasted until August 1849. The Venetians defended their liberty to the bitter end with extraordinary tenacity and courage, but they did not have the military strength to resist indefinitely.  

Unlike her rival, Trieste, Venice did not acquire a 'Viennese' style of architecture during the years of Austrian occupation. State patronage was mainly confined to the building of bridges and streets, and private building was characterized by a stylistic reticence and artistic uncertainty. In this period of political and intellectual oppression there was little scope for creativity. The death of Selva in 1819 left an artistic vacuum that was hard to fill. The few imaginative buildings of the period, such as Lorenzo Santi's Patriarchal Palace on the Piazzetta dei Leoncini to the north of the church of San Marco, were isolated phenomena. The ability of Santi, Sienese by birth but trained in Rome, can also be seen in his delightful little Istrian-stone coffee house on the corner of the new Giardini Reali (fig. 161). The idea of building a coffee house on this spot dates from the Napoleonic period, but the rhythmic lightness of the decoration of the executed building suggests a certain concession to Austrian sensibilities. This elegant garden pavilion is well attuned to
its recreational purpose. It has a festive character more reminiscent of a regatta float than of, say, the earnest neo-classicism of Casoni’s Corpo di Guardia.

Despite the relatively subordinate position of Venice in Austrian eyes, the wheels of progress turned inexorably. The Napoleonic policies for improving the city’s network of streets and canals were continued almost without interruption. Streets were widened, bridges restored or rebuilt, and canals dredged. By 1843 gas street lighting was in operation. A new development was the selling off of little-used public streets and courtyards to private buyers. Little by little, the ancient configuration of the city was being transformed. The simplest, cheapest method of creating new streets was the filling in of canals, and it was under Austrian rule that most of the city’s rii terà were created. These ‘land canals’ are among the most attractive of the streets of Venice, being unusually wide, yet preserving ancient waterfront façades alongside. For example, the Rio Terà di Sant’Agnese, filled in in 1863, forms a broad thoroughfare between the Grand Canal and the Zattere, passing alongside the former Convento della Carità (fig. 162). Gradually the Austrians were beginning to realize the need for a more constructive approach to local government in Venice, if the city that they had coveted for so
long was not to become a picturesque ruin. Their new attitude manifested itself, for example, in the reopening of some deconsecrated churches and the restoration of others, and the building of a major new slaughterhouse at San Giobbe.¹⁵

In 1846 the city effectively lost its insular status, when the first railway bridge across the lagoon was opened, providing a direct rail link with Milan. Gustav Aschenbach in Thomas Mann’s *Death in Venice* mused that ‘to come to Venice by the station is like entering a palace by the back door’.¹⁶ But every Venetian palace had to have both land and water entrances. Similarly, in the city as a whole, the advantages of direct land access were quickly realized. The commercial possibilities were enormous, and tourism, now one of the city’s most profitable industries, was given a great boost. In 1860 a stretch of historic buildings on the Grand Canal, including Palladio’s church of Santa Lucia from which the station derives its name, were ruthlessly demolished to make way for new terminal buildings.¹⁷

Perhaps the most striking visual legacy of the Austrian period is the magnificent series of iron bridges that they built in Venice. No fewer than seventeen were erected between 1850 and 1870, most of these replacing existing wood or stone structures.¹⁸ The two most impressive examples were the two new bridges across the Grand Canal, the Ponte dell’Accademia, built in 1854, and the Ponte degli Scalzi erected four years later. The Ponte dell’Accademia, designed by a gifted English bridge builder called Alfred Neville, was a brilliant feat of engineering, for the wide expanse of the Grand Canal was spanned by straight cast-iron girders without vertical supports below or suspension from chains above. The Ponte degli Scalzi, near the new railway terminal, was modelled on Neville’s bridge. The two iron bridges no longer exist, for both were rebuilt in 1933-4 by the Comune’s civil engineer Eugenio Miozzi. The Ponte degli Scalzi was replaced by a stone bridge, and that of the Accademia by a trussed wooden structure which also still survives today. It is important to remember that before 1854 the Rialto was the only pedestrian crossing point on the whole length of the Grand Canal. Despite the loss of the two longest iron bridges, other smaller examples can be seen all over the city. For example, the Ponte di Ghetto Nuovo, one of the last cast-iron bridges erected by the Austrians, shows the splendid wrought-iron railings that were such an attractive contribution to the Venetian urban scene (fig. 163).

By the time that Venice was liberated from Austrian domination in 1866, the face of the city had changed considerably. The period is often remembered for the tragic demolitions of notable historic buildings, but as we have seen there were also many constructive changes.¹⁹ After all, Venice could not have preserved her medieval way of life unchanged in the context of modern Europe. Techniques of building and modes of
transport, which had been little altered for a millennium or more, had to be modernized if the city were to survive at all. The new industrial age, manifested in Venice in the arrival of the railway and the erection of iron bridges, had to be adapted to the special circumstances of the Venetian lagoon, rather than warded off indefinitely.

Venice as Part of Italy: 1866 to the First World War

In 1866, after the Austrian defeat in the Austro-Prussian War, the Veneto was finally freed from Austrian rule and handed over to Victor Emmanuel II of Italy, who had formed an alliance with Prussia. In a referendum held in that year the people of the Veneto voted by the overwhelming majority of 674,426 votes to 69 to join the newly-formed Italian nation. This did not immediately bring the utopian democracy desired by the electorate, and at the outset there was much confusion and uncertainty. Nevertheless, the policies for modernizing the city, initiated by Napoleon and kept in motion by the Austrians, were given new life by the greater commitment of the new Italian administration.

High priority was given to the creation of new streets. In 1867 a decree of Victor Emmanuel II provided a special fund for street widening in Venice. A new commission was set up to study means of improving the street and canal network, and numerous projects were assembled and
considered. The first new highway to be forged through the dense urban network of Venice was that linking the Rialto with the new railway terminal. This new street, the Via Vittorio Emmanuele II, was solemnly opened in 1871. Not surprisingly, the ponderous title was soon forgotten, and the street has always been known since that time, simply, as the Strada Nuova. Two sections of the new route had already been created under Austrian rule by the filling-in of canals; but the new project was more radical, more decisive and more ambitious. Two straight stretches of roadway, each a full ten metres wide, meeting each other at an angle at the church of San Felice, were cut through the city by demolishing all the existing buildings on the route. Similarly, between 1870 and 1875 the Via 22 Marzo, named after the date of the 1848 revolution, was constructed on the path of an existing narrow calle between San Moisè and Santa Maria del Giglio. These new thoroughfares were different in character from the rii terà created by the French and the Austrians, for they were flanked not by ancient waterfront façades, but by generally unremarkable nineteenth-century buildings in a variety of styles, with shops along both sides.

A much-needed outcome of the newly imposed Italian rule was the impetus given to the development of Venetian industry. This was provided both by the general sense of liberation and, more constructively, by the greater involvement of the new administration. The Austrians had already considered the need for a railway terminal with port facilities for handling goods traffic. The final decision to construct a Stazione Marittima in the south-west corner of Venice was taken in 1868. Work began a year later, and the new facilities were opened in 1880, providing rail access, quays, warehouses, offices and a customs house. This development finally confirmed the end of the Rialto market as a major centre of international trade. The role of the Grand Canal as the main route of access for merchandise was taken over by the much wider Giudecca canal. While the scope of the Rialto had been reduced to that of a local food market and emporium for the sale of lace, glass and leather for tourists, the Stazione Marittima became the focus of new industrial development and led to a dramatic revival in overseas trade.

In the last two decades of the nineteenth century the population grew from about 130,000 to 150,000 (compared with the all-time low of fewer than 100,000 in 1821). Although the former importance of Venice as a shipbuilding centre was never recovered, the ancient glass industry boomed, becoming the means of livelihood of about 10 per cent of the people of Venice and Murano at the end of the century. Other traditional craft industries – leather working, wood-carving and specialized textiles (lace, ropes and linen) – prospered, and the more recently introduced manufacture of matches and tobacco flourished. The most dramatic new industrial ventures were the huge cotton factory
at Santa Marta, near the Stazione Marittima, and the Mulino Stucky, the great flour-milling complex, on the opposite bank of the Giudecca canal.24

With its prominent site and imposing architecture the Mulino Stucky has made the more conspicuous contribution to the urban scene of Venice (fig. 164). The factory was established by Giovanni Stucky, son of a Venetian mother and a Swiss father who owned a water-mill near Treviso. In his youth, Giovanni had travelled widely in central and northern Europe studying the most modern milling techniques. Steam-powered flour mills already existed in Venice – for instance, the Austrians had converted the deconsecrated church of San Girolamo for this purpose, to Ruskin’s horror using the former campanile as the factory chimney.25 But Stucky’s mill had two great advantages. It had the most up-to-date equipment possible; and above all, it could be reached by large cargo boats importing grain in large quantities. Stucky’s enterprise was an immediate success, and the original factory soon became impossibly cramped. In 1895 Stucky applied for planning permission for a major programme of enlargement and modernization. This project was not only commercially bold; it was also more artistically ambitious. The original solid brick building, with its plain Istrian-stone window frames, was to be completely masked by the immense neo-Gothic brick ‘castle’, topped by turrets and crenellations, which still survives today. This new
addition was designed by an architect from Hanover in north Germany, Ernst Wullekopf, apparently chosen because of Stucky's admiration for German expertise in flour milling. Not surprisingly, there was considerable local opposition to the scheme, especially in the Commissione all'Ornato, which felt that it was out of character with the rest of the city. However, Stucky was by now sufficiently powerful to get his own way. In 1908 he established his status in the city when he bought Massari's Palazzo Grassi, one of the largest and most magnificent palaces in the city (fig. 148). Only two years later, to the great shock and sadness of the people of Venice, he was assassinated by one of his workers in the forecourt of the railway station.26

Stucky left the city with a noble piece of nineteenth-century industrial architecture, created at the period when industrialists throughout Europe were becoming aware of the exciting visual possibilities of factory buildings. Despite local chauvinistic reservations, Wullekopf's neo-Gothic brick construction, with its expansive waterfront façade and repeated vertical accents, was not entirely alien to Venetian architectural tradition. It even recalled aspects of the medieval granaries of Terra Nova, destroyed under Napoleonic rule, though its style had a distinctively northern European streak of fantasy. After the First World War capital investment was diverted to the new industrial zone of Porto Marghera on the nearby mainland. Like the cotton factory at Santa Marta, the Mulino Stucky became an imposing symbol of the last short-lived but brave attempt to revive industry within the confines of the city of Venice.

Throughout Europe industrialization was giving new prominence to the middle classes. So, too, in Venice, the more enterprising members of the borghesia - industrialists and tradesmen - were forming a new collective identity as the most prosperous social group. The aristocracy was still respected, but on the whole no longer powerful, inhibited by a deep-rooted prejudice against becoming involved in manufacturing or shop-keeping. Meanwhile many members of the working classes were suffering terrible poverty and living in slum conditions.

The most significant architectural manifestation of the rise of the borghesia was the development of the Venetian Lido, both as a middle-class suburb of Venice and as one of Europe's most fashionable resorts. When Goethe had visited the Lido in 1786 the long sandy island had been inhabited only by a few fishermen and the Benedictine monks of San Nicolò di Lido.27 Shifting sand dunes were threatening to bury the Hebrew and Protestant cemeteries, placed there because they were not allowed on consecrated ground. On the lonely windswept beach the fine, pale yellow sand was strewn with shells and exotic seaweeds.

The first bathing establishment on the Lido opened in 1857, a whole century after sea bathing had first become popular in the colder, rougher
waters of southern England. In the comprehensive plan of 1886–91 for the revival and preservation of Venice, a substantial sum of money was set aside for the building of streets on the Lido. 28 By the time that Thomas Mann published his novella Death in Venice in 1912, the Lido had become one of the bourgeois playgrounds of Europe. Aschenbach's impressions of the shore were very different from those of Goethe a century earlier:

He delighted, as always, in the scene on the beach, the sight of sophisticated society giving itself over to a simple life at the edge of the elements. The shallow grey sea was already gay with children wading, with swimmers, with figures in bright colours lying on the sand-banks with arms behind their heads. Some were rowing in little keelless boats painted red and blue, and laughing when they capsized. A long row of capanne ran down the beach, with platforms, where people sat as on verandas, and there was social life, with bustle and indolent repose; visits were paid amid much chatter, punctilious morning toilettes hobnobbed with comfortable and privileged dishabille. 29

If the new borghesia had a strong corporate identity, no unified architectural style evolved to express this. Architecture of the period was still feeling for a new language. Neo-classicism, once so radical and exciting an artistic movement, had become the style of the Establishment and then gradually faded out. Nineteenth-century designers such as Meduna, Cadorin and Fuin had experimented with neo-Gothic and neo-Lombardesque idioms, trying to find a means of expression that would blend into the rich architectural legacy of Venice. At the same time a distinctly romantic approach to design began to emerge. For example, in the Albergo Excelsior, the largest, most luxurious of the new Lido hotels, built between 1898 and 1908, the native Venetian architect Giovanni Sardi chose an ostensibly neo-Byzantine style (fig. 165). 30 Yet he deliberately avoided the symmetry and explicitness of true Veneto–Byzantine architecture. The long seafront façade, with its domes and turrets and its Moorish arches, has a picturesque, orientalist flavour more akin to Nash's Brighton Pavilion than to any Byzantine monument in Venice.

Probably the most successful of the neo-Gothic buildings of the period was the striking 'Casa de Maria' on the island of Giudecca near the church of the Zitelle (fig. 166). This house was designed for his own use by a painter from Bologna, Mario de Maria, and built between 1910 and 1913. 31 The plan is typically Venetian, with a long central hall opening on to smaller rooms on either side. But here Gothic forms are used not derivatively but in a completely original way. The three huge north-facing windows, looking across the Bacino towards the Salute and Piazza San Marco, admit the sunless light so important to painters. These
165 (above) Albergo Excelsior, Lido, by Giovanni Sardi, begun 1898

167 (facing page left) Villa Monplaisir, Lido, by Guido Sullam, 1904–5, now lacking its wrought-iron canopied altana and its floral painted decoration

168 (facing page right) Palace in the Bacino Orseolo, by Guido Sullam, begun 1908

166 (right) ‘Casa de Maria’, Giudecca, by Mario de Maria, begun 1910
windows are only superficially Gothic, for their sides are not straight, but continue the curves of the pointed arches to create unusually broad openings. Wrought-iron balconies in front of the piano nobile windows are unconventionally supported on elegant, outsized corbels. The diaper pattern in the brickwork, borrowed from the Palazzo Ducale, is the only surviving intact example in Venice of the use of this form of decoration in a private house.\textsuperscript{32}

The most original style of the years leading up to the First World War was the stile Liberty, the Italian version of art nouveau, which, curiously, derives its name from the famous London shop. This movement combined simplified, almost abstract architectural forms with a graceful, flowing decorative language and pale, subtle colours. The most gifted exponent of the stile Liberty in Venice was Guido Sullam, whose Villa Monplaisir on the Lido, built in 1904–5, was painted all over with flowers and undulating leafy stalks, and originally topped by a rooftop
**The Rise of Fascism: First World War to Second World War**

The two decades between the wars saw further radical social and economic changes, which were to establish the city’s role in the modern world. The gradual abandonment of large-scale industry in Venice and Murano was accompanied by the development of Marghera on the nearby mainland as a major industrial centre, specializing in oil refining and the manufacture of chemicals. The new industrial zone had been established as early as 1903, but it was not until 1917 that modern port facilities were provided. A new residential area for the workers of Marghera was begun in 1920. Without the major new source of income created by the industrialization of the lagoon, Venice would probably have become a ghost town, unable to support even a fraction of the present population. Yet, as well as bringing prosperity (above all, to the capitalist industrialists), this development has led to severe problems of air and water pollution, while the need to admit giant oil tankers has inhibited plans for flood-prevention schemes at the entrances to the lagoon.

While the new ‘garden city’ was under construction at Porto Marghera in the 1920s, modernization of the mainland town of Mestre was begun in earnest, in response to the town’s new role as a *terraferma* suburb of Venice. The expansion of Mestre as a residential suburb was given a further boost by the construction from 1930 to 1933 of the road link to Venice, alongside the nineteenth-century railway bridge. The new bridge, the Ponte della Libertà, with its long succession of low Istrian-stone arches at water level (reminiscent of the casemates of Sanmicheli’s
Garage at Piazzale Roma, by Eugenio Miozzi, 1931–3

Fortezza di Sant’Andrea), was the work of the engineer Eugenio Miozzi, designer of the Ponte degli Scalzi and the Ponte dell’Accademia. The new road bridge allowed the introduction of regular bus services for commuters between Mestre and Venice, supplementing the existing train connections. It also gave a new means of access for tourists, and led to the development of Piazzale Roma as the point of arrival for cars and buses. The first multi-storey car park on the site, erected between 1931 and 1933 by the Ufficio Tecnico del Comune under Miozzi’s direction, was not only a remarkable technical achievement, but also an accomplished essay in the International Style of the 1930s, with its plain, functional geometrical forms and flush glazing (fig. 169).

The large-scale industrial and residential development of the nearby mainland necessitated parallel changes in the functions of Venice itself. The expansion of overseas shipping in the lagoon encouraged the city’s marine insurance business, centred in the waterfront palaces at the western end of the Zattere. Tourism, already long-established in Venice, now became the chief source of income of the historic city centre, and ensured the survival of traditional crafts such as glass blowing, lace making and leather working. Meanwhile the city was beginning to establish itself as an international centre of scholarship and the arts. The
Biennale, the international art exhibition founded in 1895, not only promoted the city as a cultural centre, but also became the excuse for bold architectural experimentation in the little pavilions erected by different nations in the gardens at Castello, the home of the Biennale. An important series of technical and craft schools founded in the nineteenth century, together with the Accademia di Belle Arti and the nucleus of the present university at Ca’ Foscari, which dates back to 1829, provided an institutional framework for the development of Venice as an important educational centre.

These very fundamental changes in the means of livelihood of the inhabitants of Venice were the background against which the architecture of the period evolved. Gradually, the nostalgic, retrospective mood faded, and a more adventurous, forward-looking approach to design set in. One of the last buildings in the city built in conscious imitation of an earlier style was the Casa Salviati, on the Grand Canal at San Vio (fig. 170). This little palace, built by the engineer Dall’Olivo from 1924...
to 1926, belonged to an old-established glass-manufacturing family, who used it as an excuse for blatant advertising. The façade, built in the style of the early Renaissance, is incongruously decorated with mosaics – a medium not usually adopted in Venetian domestic architecture – in order to publicize the family’s expertise in glass manufacture.  

The arrival of the modern movement in architecture, in Venice as elsewhere in Italy, was linked with the growth of Fascism, which found a potent means of expression in the public buildings of the 1930s. The speed and ruthlessness with which the tough, functional Fascist style imposed itself can be seen in the work of a talented local architect called Brenno del Giudice. In the 1920s he had designed two imaginative buildings on the Lido: the Villa Possi on the Via Sandro Gallo and the neighbouring Casa del Farmacista (fig. 171).  

This enchanting little pharmacy, erected in 1926–7, shows how the architect took a vaguely baroque style as his starting point, and imbued it with a predilection for flowing curves and simplified forms inherited
from the stile Liberty to create something new and personal, well-suited to the elegant seaside atmosphere of the Lido. When he came to design the fire station on the Rio di Ca’ Foscari in the years 1932–4, however, del Giudice adopted a style dramatically different from the intimacy of his early work (fig. 172). This was the first attempt to introduce an uncompromisingly modern building into the ancient centre of Venice. Here del Giudice exaggerated the severity of the plain round-headed and rectangular windows, which he had already used less conspicuously in the two Lido buildings, by means of their insistent repetition across the whole façade. Yet even in this imperious scheme, his innate sensibility revealed itself. Like Sullam in his palace in the Rio Orseolo, del Giudice tried to adjust the scale and the layout of his design to the older buildings around. The great waterfront arches, leading to the fireboat moorings, are enlivened by baroque keystones, while the long piano-nobile balustrade takes over a traditional Venetian feature.

On the Lido there was less need to tone down the brutal directness of the Fascist style in order to accommodate it to older buildings around. There was also more space for the huge scale and massive forms of Fascist public architecture. The most extreme manifestations of the style on the Lido were the Palazzo del Casinò and the adjoining Palazzo del
Since the fall of the Republic 1936–8 by Miozzi and a fellow engineer called Quagliata (fig. 173). The Palazzo del Casinò shows how far architecture had moved from the picturesque style of the nearby Albergo Excelsior, built less than half a century before (fig. 165). Here the design is boldly symmetrical and aggressively functional. The pitched roofs are concealed by the clean shapes of the façade walls in order to simplify the skyline, and the huge shafts of the columns of the central ‘portico’ are conspicuously stripped of all classical reminiscences.

The Post-war Years: 1945–1980

In the post-war years the plight of Venice gradually became a cause for international concern. The increasing severity of the flooding, known as acqua alta, which afflicted the city with growing frequency, began to make daily life more and more difficult. The worsening situation was exacerbated by the steady draining of artesian water from the bedrock underneath the lagoon to satisfy the heavy demands of local industry, which led to the progressive sinking of the terrain of Venice. After an aqueduct from the mountains was installed in the early 1970s to provide an alternative water supply for the industrial complex at Porta Marghera, the rate of subsidence was reduced, but serious damage had already been done. The disastrous flood in Florence in 1966 was almost as severe in Venice, yet attracted relatively little notice abroad. In 1969, however, a UNESCO report on the physical condition of the city raised

173 Palazzo del Casinò, Lido, by Miozzi and Quagliata, begun 1936
international alarm by predicting the almost total decay of the stonework within a few decades. Luckily this ominous warning proved exaggerated, but it had the welcome effect of rousing international bodies to become involved in the preservation of the city.

The architectural heritage of the city was suffering from similar ills to those that were gradually driving away the inhabitants. Repeated flooding, corrosion caused by atmospheric pollution, and erosion by waves stirred up by motor boats, constantly threatened the survival of ancient buildings. The worst wave damage occurred in the narrower canals, such as the Rio di Ca’ Foscari where the motor traffic was particularly heavy. (In 1938 an extension to this rio, a newly excavated channel called the Rio Nuovo, had been opened to provide an express route for motor boats between Piazzale Roma and the centro storico.44) And as the motor-boat traffic grew, so the survival of the gondola was seriously threatened. The surviving traghetto (gondola ferries) relied on heavy public subsidies, for the cost of building and maintaining the boats had become almost prohibitive.

At the same time there was a strong sense of the need to preserve the fabric of the city. After all, its unique townscape enshrines the memory of Venice’s former greatness. In the next few decades, fund-raising campaigns on an international scale financed the restoration of many notable architectural monuments. Rigid planning controls now forbade visible alterations to historic buildings, and the authorities could even force owners to remove extra storeys added without permission.

In one conspicuous instance, however, planning restrictions prevented the erection of what might well have been the finest example of twentieth-century architecture in the city. In 1953 America’s greatest architect, Frank Lloyd Wright, was commissioned to build the so-called Masieri Memorial House, a centre for foreign architectural students on the Grand Canal between the Palazzo Balbi and the mouth of the Rio di Ca’ Foscari (fig. 174).45 Wright was by this time already in his eighties (he died in 1959 at the age of 92). He was chosen because the building was to be erected in memory of a young architecture student, Angelo Masieri, killed in an accident while on a pilgrimage to Wright’s most famous building, ‘Falling Water’ in Pennsylvania. Never before had so distinguished an architect from outside Italy been awarded a commission in Venice. Wright’s design shows how imaginatively traditional Venetian elements, such as tall windows with projecting balconies, could be incorporated into the personal style of a contemporary architect. With its informal arrangement of horizontal and vertical accents, and the casual build-up of shapes from the lower building on the left to the tall Palazzo Balbi on the right, Wright’s design had none of the severity of del Giudice’s Fascist-style fire station a few yards away in the Rio di Ca’ Foscari (fig. 172).
In the event the project was vigorously opposed, above all by the next-door neighbours, the wealthy owners of the Palazzo Balbi, who persuaded the authorities to reject the scheme. The final compromise solution, which insisted on the preservation of the façade of the existing building on the site, was a sad loss. In the course of the conversion, the old façade collapsed and had to be largely rebuilt. The result is an exterior without character or distinction (fig. 124).

Only a year after Wright designed his Venetian house, the new railway station, a building of considerably less stature, made its appearance in the urban scene of Venice (fig. 175). In a national competition held twenty years earlier in 1934, fifty-four designs had been submitted, but all were rejected, and in the end the Amministrazione Ferroviaria substituted its own less adventurous project. Set back from the Grand Canal, and raised high on a broad flight of steps, the building makes no concessions to the scale, style or siting of those around it. But with its clean horizontals and informal asymmetry, the long white façade asserts its streamlined modernity, while the prospect that it offers to visitors to Venice from the portico at the top of the steps is breathtaking and unforgettable (fig. 143).
In the same year a new office block for the electricity company, the Società Adriatica di Elettricità, was begun on the banks of the Rio Nuovo (fig. 176).

The architects of this building, Angelo Scattolin and Luigi Vetti, took over the approximate scale and rhythm of the bays from Venetian architectural convention; but what one might call the 'international post-War office block style', even when reduced to three storeys, fits uneasily into the context of Venice as a whole. Even the rigidity of steel-frame and reinforced concrete construction is problematic on the unstable Venetian terrain. None the less, the Rio Nuovo area was undergoing large-scale development, making this an ideal site for the introduction of new architectural language.

The fate of architecture in post-war Venice, as elsewhere, seems to indicate that public bodies, and those with wealth and influence, were less seriously restricted by planning controls than ordinary private individuals. (The exception was, of course, the Biennale, where architectural innovation had always been welcomed, even expected.) One of the most prominent intrusions into the Venetian centro storico was the new headquarters of the principal bank of Venice, the Cassa di Risparmio di Venezia, in Campo Manin (fig. 177). The original appearance of this campo, formerly Campo San Paternian, is known from prints and old
176 Headquarters of the Società Adriatica di Elettricità, by Angelo Scattolin and Luigi Vetti, 1954

177 Cassa di Risparmio di Venezia, Campo Manin, by Pier Luigi Nervi and Angelo Scattolin, designed 1964
photographs. These show the picturesque hexagonal campanile of San Paternian, which was demolished in 1871, together with the church of the same name, to make more space for a monument to Daniele Manin in the campo. In 1906 the Cassa di Risparmio erected its first building on the site, a discreet neo-Lombardesque construction. Yet little more than half a century later the bank decided to replace it. The new design produced in 1964 was the work of Italy’s greatest twentieth-century architect, Pier Luigi Nervi, in collaboration with the Venetian architect Angelo Scattolin. Nervi’s brilliant use of concrete to create bold, dynamic spatial effects, seen for example in the two sports halls and the stadium that he built for the Rome Olympic Games in 1960, makes the interior of the new bank dramatic and imposing. The façade, based on a grid of horizontals and verticals like Scattolin’s electricity company headquarters, is less daring, apart from the virtuosity of the remarkably slender elements which are made to appear to support the top two storeys.

Paradoxically, the most celebrated architectural projects of the second half of the twentieth century in Venice were the least visible. These were the internationally renowned interiors by the local architect, Carlo Scarpa (1906–78). A devoted follower of Wright, Scarpa kept Wright’s drawings for the Masieri Memorial house after the rejection of the scheme (fig. 174). Some fifteen years later, in 1968–9, he designed his own interior for the house to serve as an architecture gallery for the Masieri Foundation, exploiting the triangular geometry of the site. Scarpa had already endowed Venice with some memorable interiors. As the joint winner of the Olivetti prize in 1936, he had been invited to design the Olivetti shop on the north side of Piazza San Marco (fig. 178). Here the space was deep and poorly lit. Scarpa’s response was to create a fluid series of interconnected spaces, combining a baroque sense of movement and theatricality with a strongly linear, modernist aesthetic. Discreetly hidden sources of artificial light led the viewer around the space. By inserting mezzanine levels reached by a dynamic staircase – its marble slabs apparently floating in space – Scarpa brought the shop to life.

Carlo Scarpa’s greatest contribution to Venetian architecture was his sensibility in the use of materials. Every construction detail was designed as a sculptural object in itself, dramatizing the joins between different materials (wood and metal, brick and stone, marble and wood, and so on). In the years 1959–63 he remodelled the ground floor and garden of the Palazzo Querini-Stampalia, the early sixteenth-century palace that houses one of the city’s principal public libraries as well as an art gallery. Here Scarpa engaged in one of his most poetic meditations on the dialogue between old and new. The palace is approached by an elegant bridge of such tactile materiality that the visitor is tempted to
feel every detail of the handrail. Water-gates of open ironwork in geometrical patterns, loosely reminiscent of the latticed bronze doors of San Marco, screen the entrance. These offer enticing glimpses through the ground-floor androne to the luminosity of the garden beyond. Inside, Scarpa exploited the ground floor's tendency to flood by running water channels through the interior (fig. 179). Thus the visitor has to negotiate a series of raised platforms and bridges, connected by steps arranged in endlessly inventive configurations. In the garden, the water flows out along artfully contrived concrete channels and trickles discreetly into shallow pools. Abstracted details in marble and stone, seemingly inspired by Japanese gardens, enliven the conjunctions of water, hard landscape and greenery. Because of the low water pressure Venice has never been a city of fountains, but here Scarpa orchestrated a magical water garden using only the tiniest changes of level.

The idea of employing a great non-Italian architect in Venice had not been forgotten since the rejection of Frank Lloyd Wright's project. In 1964, the year in which Nervi was employed by the Cassa di Risparmio,
Le Corbusier produced his first sketches for a new civic hospital, to be erected in the *sestiere* of Cannaregio near San Giobbe, on the site of the nineteenth-century slaughterhouse (fig. 180).\(^5\) Seen from above, Le Corbusier’s model looks like an abstract painting, with its rectangular blocks of different shapes and sizes, the ridges of the roofs arranged perpendicular to each other, fitted together in an informal but balanced composition. The side view of the model shows that Le Corbusier sensed the basic skeletal form of the archetypal Veneto–Byzantine building, with its strong horizontal elements supported on slimmer, stiltlike verticals. Opposition from the residents of the quarter, and a general reluctance (shared by Corbusier himself) to demolish the solid nineteenth-century slaughterhouse – not to mention the exorbitant cost of the scheme – combined to prevent the realization of this architectural showpiece.

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180  Model for the civic hospital at Cannaregio, by Le Corbusier, 1964
Epilogue: Venice since 1980

Still an amphibious city, Venice arouses anxiety and wonder by turns. Flooding continues to cause serious disruption, especially around the equinoxes. The floods are particularly severe when the equinoctial high tides coincide with south winds, preventing the outgoing tide from flowing out of the lagoon. Meanwhile mass tourism has begun to cause increasing disturbance to daily life. Discouraged by life in such difficult conditions, more and more inhabitants emigrate to the mainland. While Mestre and its suburbs grow, their population swelled by disillusioned Venetians, the social structure of Venice itself has begun to change. In the last three decades of the twentieth century the population halved, and many of the remaining native residents are either very old or very poor. Lower-class housing in the city is still well below acceptable standards, and the desperate shortage of amenities such as parks, sports facilities and children's playgrounds adds to the loss of morale. Modernization of the more modest housing has tended to raise the rents beyond the means of the original inhabitants, leading to further emigration. At the heart of the city, the historic architecture has become increasingly inviolate. While the commercial temptations of hotels and souvenir shops are gradually displacing residential use and food shops, preservation legislation prevents visible alteration, except through routine restoration.

Yet despite the city’s intractable problems, Venice has become the arena for some of the most challenging architectural ideas of the late twentieth century. The Biennale has begun to mount architecture exhibitions in the intervening years between the biennial art exhibitions. International competitions for the regeneration of prominent sites such as the cemetery at San Michele on Isola (won by the British architect David Chipperfield in 1998) have inserted Venice into the international architectural scene. The mayor from 1993 to 2000 was the philosopher Massimo Cacciari, an influential teacher and writer on architectural theory. But above all, the university’s school of architecture, the Istituto Universitario di Architettura di Venezia, has become one of the world’s leading fora for architectural debate. With its tens of thousands of enrolled students, IUAV draws young people with a committed interest in the built environment from an international catchment area into the city. Many of its teachers and scholars combine architectural practice with historical research, whether linked to individual projects or as parallel fields of activity. Thus a rich and historically grounded dialogue between old and new is continually nourished in lecture halls and design studios, in competitions and exhibitions.

Located initially in the disused monastery of San Nicolò dei Tolentini, IUAV began to expand its activities into other redundant buildings on
the western margins of the city. The conversion of the former cotton factory facing the church of San Nicolò dei Mendicoli into studios and lecture halls (fig. 181) was followed in 1999 by the adoption of the plan by the Catalan architect Enric Miralles for the former refrigerated warehouses at San Basilio. The location of such intense architectural debate within the walls of IUAV has tended to perpetuate the dialectical relationship between utopian fantasy and pragmatic realism that has characterized the whole history of Venetian architecture. If Fra Giocondo’s utopian project for the rebuilding of the Rialto market and Palladio’s grandiose triple-arched Rialto bridge proved too idealized to gain acceptance, none the less their very existence contributed to a corpus of conceptual ideas that have continually stimulated debate and impinged on executed schemes. Similarly today, Venice’s identity as a metaphysical dream counterbalances her reality as a city tormented by the most stringent of environmental and cultural conditions. As in the past, abstractions and ideals are disseminated internationally from an intellectual focal point suspended between utopia and practicality.
It is on the margins of the city, always a less constrained setting for architectural experiment, that innovative new architecture can still be realized. On the island of Mazzorbo, adjoining the ancient lace-making and fishing village of Burano, Giancarlo de Carlo designed a pioneering complex of popular housing, built in the years 1979–86 (fig. 182). The townscape of Burano itself derives its character from the unified scale of its two- and three-storey houses, painted in a palette of vivid colours, yet harmonized by their Istrian-stone window frames and dark-green shutters. On a wedge-shaped site on Mazzorbo, de Carlo chose a more contrived, geometrically complex layout, with staggered recessions and projections, to create informal courtyard spaces between the houses. The repetition of formal motifs such as cylindrical towers and U-shaped wings tempers the insistent variety in the disposition of the buildings and articulates a lively edge to the waterfronts on each of the long sides. Here the architectural language embodies reminiscences of Corbusian ‘modulor’ housing, reminding us that as a young man de Carlo was a member of the international groups of modern architects, CIAM and later Team X. This modernist aesthetic is combined with overt references to the local vernacular, although the dazzling palette of Burano is somewhat toned down. As so often in experimental housing, imported features seem the least welcome to the inhabitants: the glazed porches with their mosaic-tiled fascias, too hot in summer and too cold in winter, are screened by blinds or crammed with ornaments and plants.
In Venice itself, two housing schemes in Cannaregio show contrasting approaches to local tradition. Between 1987 and 1990, on a stunning site on the northern fringes of the city at San Gerolamo, Franco Bortoluzzi and the Comune of Venice erected a housing scheme along the waterfront, with interconnected courtyard spaces behind (fig. 183). Here the references to the local vernacular are blatant: we see inset windows framed by Istrian stone with dark-green shutters and even traditional chimneys, which no longer serve their function as cinder traps since the use of solid fuel is forbidden. Between the houses a broad path to the edge of the lagoon is framed by an arch as if to underline its

183 Sacca San Gerolamo, public housing project, by Franco Bortoluzzi and the architectural service of the Comune di Venezia, 1987-90
picturesque possibilities. Meanwhile, in the years 1981–94, on the opposite side of the Cannaregio canal, a huge complex known as the Area Saffa was constructed to designs by Vittorio Gregotti, near the former slaughterhouse, site of Le Corbusier’s hospital project (fig. 184). In this scheme allusions to the local vernacular are more abstracted, apart from the rooftop altane and balconies. The enclosed character of the site, almost hidden from every major public thoroughfare, contributes to a sense of claustrophobia, which is increased by the use of high walls around the courtyards and gardens. Public spaces are fragmented by raised walkways and staircases, in each case hidden behind high parapet walls, while entrances are concealed within dark hollows. The huge scale of the development adds to the feeling of entrapment. As at Mazzorbo, innovatory details are problematic: here flush glazing prevents the use of traditional shutters, which are so important to Venetians in their diurnal control of light and heat. Instead, the oddly alien ‘Venetian’ blinds on the outside of the windows flap in the wind and gather dust.

On the islands of the Giudecca and the Sacca Fisola, space left by disused industrial complexes has allowed more room for experiment. Existing industrial complexes such as the Mulino Stucky and the Birreria Dreher have proved challenging sites for conversion to residen-
tial and other uses (fig. 164). On vacated land, two new housing developments now face each other across the broad Canal dei Lavraneri. On the site of a former cement works at the western end of the Giudecca, behind the Mulino Stucky, Gino Valle built the IACP housing complex in the years 1980–86. On its landward side, this complex has a permeable edge screened by an arcade of giant brick pilasters, with a raised walkway running behind. The façade to the canal, on the other hand, is surprisingly defensive, with its row of projecting towers in sandy red brick framing recesses hollowed out by arches and terraces (fig. 185). Each tower is placed back-to-back with another, separated only by a narrow cleft. In contrast to the San Gerolamo scheme, seen earlier, there seems to be little enjoyment of the waterfront site. Access to the canal is gained through the deep fissures between the towers, leading to a precipitous embankment negotiable only by ladder. In an environment where all transport for heavy deliveries – not to mention recreations such as fishing, rowing and picnics – is waterborne, this blatant denial of such a precious amenity seems perverse. Opposite, a more sensitive response is displayed on the eastern edge of the Sacca Fisola, where the Area Fregnan was developed for housing in the years 1982–9 to designs by Iginio Cappai, Pietro Mainardi and Valeriano Pastor. Although this project is more self-conscious and mannered in its detailing, the configuration around a large square courtyard gives a greater sense of community. Along the waterfront, the eastern range is pierced by ample openings with mooring bays reached by ramps and concave steps (fig. 186). In its enjoyment of material detail and the play of levels,
the design reflects the pervasive influence of Carlo Scarpa. At the same time, traditional dark-green shutters, set within white window frames and brick walls, give the rectangular windows a comforting familiarity. It is not my place here to foretell what the future holds for Venice, or to discuss the various schemes that have been put forward for rescuing the city from irreversible decline and physical decay. The situation is not entirely a cause for pessimism. The use of Internet communications could allow the return of some of the banking and insurance interests that long ago abandoned the city centre. Despite its physical handicaps, Venice preserves a lively cultural identity as a centre for the visual arts, cinema, opera and academic study. Cultural life is penetrating ever deeper into the fabric of the city. The conversions of the Dogana (or customs warehouses) for the use of the Guggenheim Museum and of the nearby hospital of the Incurabili for the teaching departments of the Accademia di Belle Arti have established an extensive artistic complex along the Zattere. Sansovino’s huge Scuola Grande della Misericordia is being converted to a concert hall and multi-media music centre. Even the physical environment has utopian features that are the envy of architects and planners all over the world. Here pedestrians have their own complete street network, and virtually everyone uses public motor
transport. The provision of car parking space on the outskirts, so desirable in other cities, is obviously indispensable in Venice. A huge area of reclaimed land on the west of the city, called the Tronchetto, has been provided for this purpose, supplementing the garages of Piazzale Roma. However much one may regret the displacement of traditional bakeries and greengrocers by shops selling carnival masks and Venetian glass, the economic advantages of supermarkets to the population are as compelling in Venice as elsewhere. The arrival of supermarkets in the city has, ironically, helped to reinforce the vitality of day-to-day life, reducing the need for trips to mainland shopping centres.

Despite the technical obstacles, the Venetian environment remains an exciting challenge to architects. The special quality of the light and the visual role of the water are an asset to any building, and the task of adapting contemporary ideas to the Venetian architectural tradition may continue to inspire designs of true distinction. Of course the conservation of the city's architectural heritage should be a long-term aim, but this should not be allowed to stifle the creative energies of the architects of the future.
Notes

Chapter 1


Chapter 2

3 See, for example, R. Polacco, La cattedrale di Torcello, Venice and Treviso, 1984.
5 E. Hubala, Venedig, Reclams Kunstfiihrer Italien, i16, Stuttgart, 1974, p. 435; Polacco 1984, p. 26. New archaeological excavations beneath the fourth aisle (added on the north side in the twelfth century) have revealed not only house buildings from the fifth to the early seventh centuries, but also brick walls that may have formed part of the seventh-century basilica. See A. J. Ammerman and C. E. McLennen (eds), Venice before San Marco: Recent Studies on the Origins of the City, Hamilton, New York, 2001, p. 39.
6 Polacco 1984, p. 19, dates the present shutters to the early nineteenth century.
8 Polacco 1984, p. 44. I am grateful to Phil Collins who first drew my attention to this alteration.
14 Calabi and Morachiello 1987, p. 97.
15 Sansovino 1663, 1, p. 196; Cessi and Alberti 1934, pp. 137-8.
16 The plan prepared by Antonio da Ponte for a proposed restoration in 1587 shows a groin-vaulted crossing rather than a dome (Calabi and Morachiello 1987, fig. 41).
17 Sansovino 1663, 1, p. 197.
20 Demus 1960, pp. 21-2, 44, 63. Roberto Cecchi asserts that mortar analysis in the foundations indicates that the ninth-century church was similar in plan to the core of the present building (Ammerman and McClennen 2001, p. 38).
21 Demus 1960, pp. 64-9.
22 Demus 1960, pp. 69-73.
23 Demus 1960, p. 74.
31 Demus 1960, p. 8.
33 Demus 1960, pp. 72, 88-100 (the manuscript citation appears on p. 90); Concina 1998, p. 27.
34 Demus 1960, pp. 88-100.
37 Demus 1960, pp. 103-4.
39 Demus 1960, p. 103.
47 Schulz in Romanelli 1997.
49 In legal documents a palace could be distinguished from lesser houses simply by the phrase casa da statio.
50 This long-established view, expressed as early as 1581 by Francesco Sansovino (Sansovino 1663, i, p. 384), has been contested by Juergen Schulz in Romanelli 1997, i, p. 87. For a reassertion of the traditional view, see Howard 2000, pp. 136–7.
53 Arslan 1971, p. 17.
56 Arslan 1971, p. 41, note 100.
57 For a summary of the range of early types, see Schulz in Romanelli 1997, i, pp. 80–91.

Chapter 3

9 H. James, Italian Hours, London, 1909, p. 16.
13 See especially W. Dorigo, Venezia origini: fondamenti, ipotesi, metodi, 2 vols, Milan, 1983. This largely supersedes the earlier studies by S. Muratori, Studi per una operante storia urbana di Venezia, I, Rome, 1960; idem, ‘Problema critico dell’età gotica’; in P. Maretto, L’edilizia gotica veneziana, Rome, 1961, pp. 11–52. Ancient Roman texts appear to confirm that the site of Venice was largely under water in Roman times: see L. Bosio, ‘Note per una prope-


17 Crouzet-Pavan 1992, i, especially pp. 265–89.


22 Crouzet-Pavan 1992, i, especially pp. 57–139.

23 Crouzet-Pavan 1992, i, p. 77.


26 F. Sansovino, Venetia città nobilissima et singolare, ed. G. Martinioni, 2 vols, Venice, 1663, 1, p. 290

27 Sansovino 1663, 1, p. 369.


33 Wolters 2000, pp. 73–97.


41 Coryate 1611, p. 165.


43 Sansovino 1663, 1, p. 383.
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47 Sansovino 1663, 1, p. 383.


50 Sansovino 1663, 1, p. 384.

51 See, for example, Goy 1992, pp. 222-3.

52 See especially Caniato and dal Borgo 1990, passim. (For the terrazzo-makers' test, see p. 144.) See also Sagredo 1856; Wirobisz 1965; Goy 1989, pp. 91-110; Wolters 2000, pp. 28-32.

53 Goy 1992 gives a detailed account of this process as exemplified in the construction of the Ca' d'Oro.

54 Archivio di Stato di Venezia, Procuratori de Citra, busta 189, fasc. 6, quaderno f. 55 verso, in a document relating to routine repairs. Here the Latin word was adopted by a scribe whose italic script suggests his humanist interests. This reference was generously provided by Dr Susan Connell, whose doctoral thesis, The Employment of Sculptors and Stone-Masons in Venice in the Fifteenth Century, Warburg Institute, London, 1976, published with revisions New York and London, 1988, is a valuable source of information about fifteenth-century Venetian building practice.


56 Sansovino 1663, 1, pp. 383-4.

57 Sansovino 1663, 1, p. 382.


61 Gianighian and Pavanini 2000, p. 158.

62 Archivio di Stato di Venezia, Savi ed esecuttori alle acque, filza 119, 'Relazioni Periti sopra la Laguna (1493-1579)', carta 189, 17 April 1550.


65 Coryate 1611, p. 262.

Chapter 4


3 Luzzatto 1961, p. 130, in which the same statistics are given in 'money of account' rather than converted into suggested 'real' values.


10 F. Sansovino, Venetiæ ciuità nobilissima et singolare, ed. G. Martinioni, 2 vols, Venice, 1663, 1, p. 6. Possible precedents for the medieval basilica plan in the city may have been two early thirteenth-century nunneries
in the east of the city, the Benedictine church of Santa Maria in Gerusalemme and the Cistercian church of Santa Maria della Celestia, but both are now destroyed. See D. Howard, *Venice and the East: The Impact of the Islamic World on Venetian Architecture 1100–1500*, New Haven and London, 2000, pp. 211–12.


12 See the plan in Ghedini 2000, p. 116, fig. 1.


14 The aisle windows date from a restoration of 1922, for the original windows had been transformed into thermal windows, visible in old photographs and in views by Canaletto (Lorenzetti 1961, p. 344). Thanks are due to Phil Collins for pointing this change out to me in a letter of 3 January 1992.


17 Dellwing 1970, p. 117.


20 For plan and description of Santa Croce, see White 1993, pp. 30–34.


26 A. Guisconi (i.e. Francesco Sansovino), *Tutte le case notabili e belle che sono in Venetia*, Venice, 1556, p. 16.


29 Howard 2000.


31 Ruskin 1851–3, 1, p. 17.


35 Arslan 1971, p. 145, is among those who support the controversial theory, proposed in P. Toesca, *Il Trecento*, Turin, 1950, p. 154, that the new Sala del Maggior Consiglio was built on top of Ziani’s arcades, which were later renewed while the superstructure was supported by some kind of temporary scaffolding. The huge cost and technical difficulty involved in such a procedure would seem to me prohibitive, and I have therefore preferred to adhere to the more straightforward chronology – that the arcades and
the Sala del Maggior Consiglio above were largely reconstructed in a single rebuilding programme between about 1340 and 1365.

Two names appear in the documents as 'prothomagistri': a stonemason called Henricus in 1344, 1351 and 1356; and Pietro Basegio posthumously in 1355. The design role of Filippo Calendario, executed in 1356 for his role in the Falier conspiracy, has become legendary but is not confirmed by any document. See L. Puppi, 'Geografia di un crinale: Filippo Calendario tra storia e leggenda', in Wolters and Valcanover 2000, pp. 99–103.

The precision of the proportions was highlighted by H. Diruf, Paläste Venedigs vor 1300, Munich, 1990, pp. 37–8.


White 1993, pp. 227–9, 241–3.


Sansovino 1663, I, pp. 358–66. G. Lorenzetti, Venice and its Lagoon, trans. J. Guthrie, Rome, 1961, p. 324, interpreted this passage to mean that the palace was frescoed by Palma. P. Rylands, Palma Vecchio, Cambridge, 1992, pp. 2, 18, 180–81, assumes these paintings to have been in the collection inside the palace.


Whittick 1976, p. 57.


Whittick 1976, p. 117.


loc. cit.

Sansovino 1663, I, p. 388.

G. Tassini, Alcuni palazzi ed antichi edifici di Venezia, Venice, 1879, p. 182.


65 For a full catalogue of the surviving scuole piccole and their works of art, see Pignatti 1981. See also Lane 1973, pp. 104–9, 318-21; and especially R. Mackenney, Traders and Traders: The World of the Guilds in Venice and Europe, c.1250-c.1650, Totowa, New Jersey, 1987 (the contrast between Venice and Florence is articulated on pp. 32–5).


67 For a clear exposition of the typology of the scuola grande, see Sohm 1982, pp. 50–79.


Chapter 5

1 J. Beck, Jacopo della Querchia, 2 vols, New York, 1991, i, p. 46, rejects the suggestion that the artist was employed in Venice.


3 The signature and date appeared in the cleaning of the statue in 1973 (information kindly supplied by Frederick Ilchman).


8 For a deeply considered and richly documented account of the Venetian attitude to antiquity, see especially P. F. Brown, Venice and Antiquity: The Venetian Sense of the Past, New Haven and London, 1996. The role of Petrarch is introduced on pp. 64–74, and the theme recurs throughout the book.


10 On Venetian schooling, see P. F. Grendler, Schooling in Renaissance Italy: Literacy and Learning 1300–1600, Baltimore, 1989, pp. 42–70; Grendler 1995, article no. vii, pp. 41–54.
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12 See Brown 1996 for a rich and subtle analysis of Venetian attitudes to this Roman heritage.


20 Franco 1939, pp. 270 ff.


26 Wolters 2000, p. 96.


28 Sansovino 1665, i, p. 320.


35 For a discussion of this issue, see McAndrew 1980, pp. 141-3.

36 Ceriana 1992-3, p. 24, considers the whole choir to date from 1607. He bases this conclusion on a document quoted by Cicogna in which permission was sought by the friars of San Giobbe to ‘rinovar il nostro altar di chiesa in occasione che hanno fatto il coro da novo’ (E. Cicogna, *Delle iscrizione veneziane*, 6 vols, 1824-53, vi, p. 707). However, because of the Gothic masonry on the exterior this document seems to refer to the construction of the vault and the choir stalls. See Paolotti 1893, i, part ii, pp. 190-91.


Il trattato di Mauro Codussi, "L'architettura veneziana del Primo Rinascimento", pubblicato nel 1977, presenta una descrizione accurata e dettagliata delle opere realizzate da Mauro Codussi e dall'architettura veneziana nel primo Rinascimento. Il testo si avvale di una ricca bibliografia e di una numerosa documentazione, che permette di avere un'immagine completa dell'architettura veneziana di quegli anni.

Dopo la pubblicazione del trattato, sono state pubblicate varie monografie e studi sulle opere di Mauro Codussi e sulla storia dell'architettura veneziana. Tra di esse, si ricorda la monografia di P. Pauzelli, "L'architettura veneziana del Primo Rinascimento", pubblicata nel 1982, che offre una visione completa e dettagliata dell'architettura veneziana nel Rinascimento.

Tuttavia, è importante sottolineare che la successione di eventi e la cronologia delle opere sono state oggetto di dibattito e di discussione, soprattutto tra gli storici dell'architettura. Alcuni studiosi, come P. Pauzelli, hanno sottolineato la necessità di una revisione delle cronologie e delle attribuzioni degli artisti, per capire meglio la dinamica della produzione artistica in Veneto nel Rinascimento.

La bibliografia è estesa e varia, con una ricca gamma di opere che coprono una varietà di temi e argomenti. Il testo si avvale di una ricca bibliografia e di una numerosa documentazione, che permette di avere un'immagine completa dell'architettura veneziana di quegli anni.
Supra, busta 33, processo 68, 'Proprietà in Campo Rusolo', fascicolo 2.


79 Cessi and Alberti 1934, pp. 91-114; Calabi and Morachiello 1987, pp. 50-78.


82 See Lieberman 1977, pp. 41-6.


84 Pullan 1971, pp. 146 and 159.

85 Pullan 1971, p. 158.

86 Sansovino 1663, i, p. 288.

Chapter 6

1 G. B. Lorenzi, Monumenti per servire alla storia del Palazzo Ducale di Venezia, Venice, 1868, p. 169.


3 Sanmicheli's return to the Veneto in 1526-7 was unconnected with the Sack of Rome. See L. Puppi, 'Michele Sanmicheli: punti fermi e nuovi ipotesi di ricerca', in H. Burns, C. L. Frommel and L. Puppi (eds), Michele Sanmicheli: architettura, linguaggio e cultura artistica nel Cinquecento, Milan, 1995, pp. 7-13 (on p. 12). Likewise, research by Richard Tuttle has demonstrated that Serlio had already returned to his native Bologna before the Sack of Rome. He was certainly there in the years 1520-23 and again from 1525 to 1527. See R. Tuttle, 'Sebastiano Serlio Bolognese', in C. Thoenes (ed.), Sebastiano Serlio, Milan, 1989, pp. 22-9.


7 Hart and Hicks 1996, i, p. 253.

8 S. Serlio, Tutte l'opere d'architettura et prospettiva, Venice, 1619, p. 123 verso. English translation from Hart and Hicks 1996, i, p. 244.

9 This issue is further discussed in D. Howard, 'Responses to ancient Greek architecture in Renaissance Venice', Annali di Architettura, vi (1994), pp. 23-38.


11 The fullest account of Sansovino's architectural work in Rome is to be found in M. Morresi, Jacopo Sansovino, Milan, 2000, pp. 12-71 and 385-425.


For observations on the portal in Verona, see Howard 1994, p. 34. The Palazzo Dolfin in Venice is discussed below.

Vasari 1878–85, vi, p. 343.


Howard 1987, p. 84.


Hart and Hicks 1996, i, p. 251.

See especially Tafuri 1984.


Puppi 1971, pp. 25, 88–90.


Vasari 1878–85, vi, p. 349.

Vasari 1878–85, vi, p. 348.

Vasari 1878–85, vi, p. 348.


Howard 1987, pp. 39–41. Benjamin Arbel has suggested to me that these ‘slaves’ were properly serfs rather than slaves.

Howard 1987, p. 41.

Howard 1987, pp. 38–47.

Howard 1987, p. 41.

Howard 1987, pp. 38–47.

Vasari 1878–85, vii, p. 504.


A. Palladio, I quattro libri dell’architettura, Venice, 1570, book 1, p. 5.

For my own view of the controversy over Sansovino’s intentions for this end of the Library, see D. Howard, ‘Two notes on Jacopo Sansovino’, Architettura, xi (1974), pp. 137–46. This article refutes the suggestion by Manfredo Tafuri (1972, pp. 82–9) that Sansovino intended the Library to be only seventeen bays long. The seventeen-bay theory has been vigorously defended by Morresi, most recently in her Jacopo Sansovino (2000), pp. 202–3. There is no space here to reiterate my position, but two observations may suffice. In addition to the documentary evidence in favour of the twenty-one-bay project, the main entrance to the Library lies in the very centre of the present building. Moreover, it seems unlikely that Sansovino would have wished to hide the entrance to the Zecca in the very last bay.


The completion process is analysed in detail in its political context by Tafuri 1989, pp. 166–79.


The plan of the palace for Vettor Grimani is
recorded in a large drawing in the Museo Correr, previously attributed to both Sanmicheli and Serlio, but now generally accepted as a project by Sansovino. See Morresi 2000, pp. 72–83.


51 Personal communication from David Hemsoll and Paul Davies, whose monograph on Sanmicheli is in press.


60 On the Salt Office’s election of the proto in 1534, see G. B. Lorenzini, Monumenti per servire alla storia del Palazzo Ducale di Venezia, Venice, 1868, pp. 281–2. On the Scala d’Oro project, see Lorenzini 1868, pp. 287–8; and G. Zorzi, Le opere pubbliche e i palazzi privati di Andrea Palladio, Venice, 1964, p. 137.


63 Palladio 1570, book ii, p. 29.

64 The omission of the Doric frieze had a well-known antique precedent in the Crypta Balbi, since destroyed. The arrangement had been used in early sixteenth-century Roman buildings such as Raphael’s Palazzo Branconio dell’Aquila.


66 Wittkower 1962, pp. 89–90, suggested that Palladio intended to imply two temple fronts, one superimposed upon the other, but according to this idea the smaller temple front would be excessively broad and squat. In the façade as built, the side pediments are broken apart by the central section, rather than passing behind them. For the analysis of the façade in the context of its patronage, see Antonio Foscari, ‘Commitenti e artisti: Daniele Barbaro, Giovanni Grimani, Battista Franco, Andrea Palladio’ in Foscari and Tafuri 1983, pp. 131–45.


68 Sansovino 1663, i, p. 218.

69 The authorship of the façade design is dis-


72 Palladio 1738, p. 82.

73 See J. S. Ackerman, Palladio, Harmondsworth, 1966, pp. 156–8, on the sensuality and warmth of the light in Palladio’s churches.


81 Burns, Boucher and Fairbairn 1975, p. 145.

82 Timofievitsch 1971, pp. 36–8.

83 Palladio 1570, book IV, p. 5.

84 Palladio 1570, book IV, p. 76.

85 Ackerman 1966, pp. 126–34.


87 Burns, Boucher and Fairbairn 1975, pp. 155–60. The documents are published and analysed in Zorzi 1964, pp. 151–67. Manfredo Tafuri suggested that the Chatsworth drawing, identified by Burns as Palladio’s proposed design for rebuilding the Palazzo Ducale was in fact for a ducale residence on the far side of the rio, on the site of the Prison. See Tafuri 1989, pp. 179–84; M. Tafuri, ‘Il disegno di Chatsworth (per il Palazzo Ducale di Venezia?) e un progetto perduto di Jacopo Sansovino’, in Chastel and Cevasce 1990, pp. 100–11.

Chapter 7

1 See, for example, L. F. Gherisi, Alessandro Vittoria: architettura, scultura e decorazione nella Venezia del tardo Rinascimento, Udine, 1998.


9 The fundamental monograph on Santa Maria della Salute is Hopkins 2000. The crucial previous interpretations were R. Wittkower, ‘S. Maria della Salute’, *Saggi e Memorie di Storia dell’Arte*, III (1963), pp. 33–54; and M. Muraro, ‘Il tempio votivo di Santa Maria della Salute in un poema del Seicento’, *Ateneo Veneto*, xi (1973), pp. 87–119. M. Gemin’s *La chiesa di Santa Maria della Salute e la cabala di Paolo Sarpi*, Abano Terme, 1982, published important new documents, interpreted from a strongly ideological viewpoint. In his review of Wittkower’s 1963 article in the *Journal of Aesthetics and Art Criticism*, xxiv (1965/6), pp. 458–9, Juergen Schulz first suggested that the presbytery of the Salute was redesigned around 1656. Hopkins 2000, pp. 40–46, has analysed the changes in the plan of the presbytery and dates these to the initial stages around 1632, although further modifications, especially to the decorations, were made during the execution.


14 Muraro 1973, pp. 113–14. This theme was further explored by Gemin 1982.

15 Longo’s poem was discovered by Dott. Giorgio Ferrari, former director of the Marciana Library in Venice. The section that relates to the Salute is published in Muraro 1973, pp. 98–104. Muraro’s article gives a full discussion of the poem and its implications for the iconography of the church in the context of the political climate of the time. The date 1644 coincides with the time when, according to Muraro, the iconography was also altered.


19 Hopkins 2000, pp. 81–93, disagrees with the hypothesis of Muraro 1973, that the programme illustrated by Boschini and described in Longo’s poem preserves the ‘original’ iconography. He considers that a strictly Marian iconography was intended from the outset.

20 Translation from Hopkins 2000, p. 22.


26 For an analysis of the church in its ceremonial role, see Hopkins 2000, pp. 154–53.


28 Wittkower 1963, p. 43.

29 This was pointed out by Wittkower in his important analysis of the Salute (1963), pp. 53, 39–40 and 48–50. The relevant document is also cited in translation in Hopkins 2000, pp. 27–8. For new information since Wittkower’s article, see Hopkins 2000, p. 261.


32 Hopkins 2000, pp. 104–5. The connection between Colonna’s Temple of Venus and the Salute was first suggested by Lorenzo Santi, *Ricordi di Fra Francesco Colonna e ragion-
m Santo dell’estetica architettonica, Venice, 1837, p. 535.


34 Indeed, in the initial planning stages, the three nobles put in charge of the project had recommended seeking an architect from Rome or elsewhere. See Hopkins 2000, pp. 16-17. For an outline of the work of Longhena’s Roman contemporaries, see R. Wittkower, Art and Architecture in Italy 1600-1750, revised by J. Connors and J. Montagu, 3 vols, New Haven and London, 1999, 11, pp. 23-74 (on Bernini, Borromini and Pietro da Cortona) and pp. 99-110 (on other architects). The masterpieces of Guarini in Turin fall right at the end of Longhena’s career (Wittkower, 1999, 111, pp. 29-36).

35 The interest may have been reciprocated, for one of Longhena’s early plans for the Salute ended up in the archives of Borromini’s patrons, the Oratory of the Filippini in Rome. See A. Hopkins, ‘Plans and planning for Santa Maria della Salute’, Art Bulletin, LXXIX (1997), pp. 440-65; Hopkins 2000, pp. 208-9.

36 It is generally assumed that Longhena had some knowledge of an engraving in Labacco’s Libro di architettura, published in 1558, showing a project for San Giovanni dei Fiorentini in Rome by Antonio da Sangallo. In this project similar huge scrolls surround the base of the dome (illustrated in Wittkower 1963, fig. 35). Other possible sources for the scrolls are reviewed in Hopkins 2000, pp. 104-9.


40 Bassi 1962, pp. 146-54.

41 See A. Massari, Giorgio Massari, architetto veneziano del Settecento, Vicenza, 1971, pp. 100-07.


43 See P. Piffaretti, Giuseppe Sardi, Bellinzona, 1996.

44 Bassi 1962, pp. 185-8.

45 Piffaretti 1996, pp. 25, 55-6, 118.

46 Bassi 1962, pp. 192-4.


Chapter 8


5 E. Bassi, Architettura del Sei e Settecento a Venezia, Naples, 1962, pp. 207 and 269.


7 Bassi 1962, p. 207.

8 Bassi 1962, pp. 269-94.

9 Bassi 1962, pp. 276-80.

10 Bassi 1962, pp. 335-43.


16 Bassi 1962, pp. 359-74; and Barcham 1977, pp. 388-9 and 392.
Chapter 9


3 For a complete account of demolitions and the loss of works of art in the Napoleonic period, see A. Zorzi, Venezia scomparsa, 2 vols, second edition, Milan, 1977, 1, pp. 70-137, and II, catalogue of monuments destroyed, altered or converted to other use.

4 On the work of the Commissione all’Ornato and Selva’s role, see G. Romanelli, Venezia Ottocento: materiali per una storia architettonica e urbanistica della città nel secolo xix, Rome, 1977, pp. 38-70, 96-103.

5 On Napoleonic changes to Piazza San Marco, see Romanelli 1977, pp. 71-95.

6 On San Geminiano, see D. Howard, Jacopo Sansovino: Architecture and Patronage in Renaissance Venice, New Haven and London, 1975, revised 1987, pp. 82-4. Sansovino’s remains were finally given a solemn burial in the baptistery of the church of San Marco in 1929, the 400th anniversary of his appointment to the office of proto to the Procuratia de Supra.


8 Romanelli 1977, p. 102.


10 Romanelli 1977, pp. 200-01.


13 On Santi’s activities in Venice, see Romanelli 1977, pp. 185-93.


19 The demolitions of the period are described in Zorzi 1977, 1, pp. 138-91.


NOTES TO PAGES 277–300

29 Mann 1955, p. 35.
36 Maretto 1969, p. 92.
37 Maretto 1969, p. 100; and Zorzi 1977, IV, plates 200–02. The engineers who executed the project were Gino Cipriani and Alberto Magrini (Trincanato and Franzoi 1971, section xv).
39 Maretto 1969, p. 87.
40 Maretto 1969, p. 88.
41 Maretto 1969, p. 91.
42 Maretto 1969, p. 102.
44 Zorzi 1977, I, p. 250. Because of serious erosion it is no longer used for scheduled services.
47 Maretto 1969, p. 126.
49 Maretto 1969, p. 129.
55 The richness of this design scene is reviewed in de Michielis 1999.
56 De Michielis 1999, pp. 135–47.
57 De Michielis 1999, p. 248.
Bibliography

General Works for Further Reading

Historical background

Useful surveys in English include:


Guidebooks

The first true guidebook to Venice was:


The best twentieth-century art-historical guidebook is:


Useful material on the city’s architecture is to be found in:


For travellers’ writings on Venice:


General studies of Venetian architecture

BIBLIOGRAPHY

Cambridge University Press, 1998; originally published in Italian as Storia dell’architettura di Venezia, Milan: Electa, 1995

Individual periods

Origins of the City
S. Bettini, Venezia, nascita di una città, Milan: Electa, 1978

Byzantine

Medieval City
On building construction and vernacular traditions:
E. R. Trincanato, Venezia minore, Milan: Del Milione, 1948

Gothic

Early Renaissance
N. Huse and W. Wolters, The Art of Renaissance Venice: Architecture, Sculpture

‘Roman’ Renaissance


M. Morresi, Jacopo Sansovino, Milan: Electa, 2000


Baroque to Neoclassicism

E. Bassi, Architettura del Sei e Settecento a Venezia, Naples: Edizioni Scientifiche Italiane, 1962

E. Concina, Venezia nell’età moderna: strutture e funzioni, Padua: Marsilio, 1989

Nineteenth and Twentieth Centuries


G. Romanelli, Venezia Ottocento: materiali per una storia architettonica e urbanistica della città nel secolo XIX, Rome: Officina, 1977

M. de Michels (ed.), Venezia: la nuova architettura, Milan: Skira, 1999

Sources Cited in the Notes


Ackerman, J. S., Palladio, Harmondsworth, 1966

Ackerman, J. S., The Architecture of Michelangelo, Harmondsworth, 1970


Aikema, B., and Brown, B. L., Renaissance Venice and the North: Cross-currents in the Time of Bellini, Dürer and Titian, exhibition catalogue, Palazzo Grassi, Venice, 1999

Aikema, B., and Meijers, D., Nel regno dei poveri: arte e storia dei grandi ospedali veneziani in età moderna, Venice, 1989


Bassi, E., *Giambattista Selva, architetto veneziano*, Padua, 1936
Bassi, E., *La Reale Accademia di Belle Arti di Venezia*, Florence, 1941
Beltrami, L., *La Ca’ del Duca sul Canal Grande*, Milan, 1900
Berengo, M., *La società veneta alla fine del Settecento*, Florence, 1956
Budden, J., *The Operas of Verdi*, 3 vols, 1973–81


Burns, H., Frommel, C. L., and Puppi, L. (eds), Michele Sanmicheli: architettura, linguaggio e cultura artistica nel Cinquecento, Milan, 1995


*The Catholic Encyclopaedia*, ed. G. B. Herbermann et al., 16 vols, New York, 1913


Chiodi, L. (ed.), *Lettere inedite di Lorenzo Lotto su le tarsie di Santa Maria Maggiore in Bergamo*, Bergamo, 1962


Cicogna, E., *Delle iscrizioni veneziane*, 6 vols, Venice, 1824–53


BIBLIOGRAPHY


Corner, F., Notizie storiche delle chiese e monasteri di Venezia, Padua, 1758

Coryate, T., Crudities, London, 1611

Cozzi, G., Paolo Sarpi fra Venezia e L’Europa, Turin, 1979


Cozzi, G., Knapton, M., and Scarabello, G., La Repubblica di Venezia nell’età moderna: dal 1517 alla fine della Repubblica, Turin, 1992

Crouzet-Pavan, E., ‘Sopra le acque salse’: espaces, pouvoir et société à Venise à la fin du Moyen Age, 2 vols, Rome, 1992


Dellwing, H., Studien zur Baukunst der Bettelorden im Veneto, Munich, 1970

Dellwing, H., Die Kirchenbauten des späten Mittelalters in Venetien, Worms, 1990


Demus, O., The Mosaics of San Marco, 4 vols, Chicago and London, 1984

Demus, O., et al., Le sculture esterne di San Marco, Milan, 1995


Diruf, H., Paläste Venedigs vor 1500, Munich, 1990

Dorigo, W., Venezia veneti: fondamenti, ipotesi, metodi, 2 vols, Milan, 1983


Dorigo, W., and Romanelli, G., L’archivio storico delle arti contemporanee a Ca’ Corner della Regina, La Biennale di Venezia, Venice, 1976


BIBLIOGRAPHY

Franco, F., ‘L’interpolazione del Filarete trattatista fra gli artefici del Rinascimento architettonico a Venezia’, Atti del IV Convegno Nazionale di Storia dell’Architettura, Milan, 1939, pp. 269–70
Frommel, S., Sebastiano Serlio architetto, Milan, 1998
Gazzola, P., Michele Sanmichelli, exhibition catalogue, Venice, 1960
Gemin, M., La chiesa di Santa Maria della Salute e la cabala di Paolo Sarpi, Abano Terme, 1982
Goy, R. J., Venetian Vernacular Architecture: Traditional Housing in the Venetian Lagoon, Cambridge, 1989

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BIBLIOGRAPHY

Grendler, P. F., Schooling in Renaissance Italy: Literacy and Learning 1300-1600, Baltimore, 1989

Grendler, P. F., Books and Schools of the Italian Renaissance, Aldershot, 1995

Guisconi, A. (i.e. Francesco Sansovino), Tutte le cose notabili e belle che sono in Venetia, Venice, 1556


Hale, J. R., Renaissance Fortification: Art or Engineering?, London, 1977


Honour, H., Neo-classicism, Harmondsworth, 1968


Giavarina and P. Marini (eds), Studi in onore di Renato Cevese, Vicenza, 2000,
pp. 313–30
Howard, D., Venice and the East: The Impact of the Islamic World on Venetian
Howell, J., A Survey of the Signorie of Venice, London, 1851
Hubala, E., Venedig, Reclams Kunstführer Italien, ii/1, Stuttgart, 1974
Humfrey, R., and Mackenney, R., ‘The Venetian trade guilds as patrons of art in
Arbeitshefte des bayrischen Landesamtes für Denkmalpflege, lvi, Munich,
1991, pp. 247–61
Ivanoff, N., ‘Monsu Giusto ed altri collaboratori del Longhena’, Arte Veneta, 11,
1948, pp. 115–26
James, H., Italian Hours, London, 1909
Julier, J., Il Mulino Stucky a Venezia, Centro Tedesco di Studi Veneziani,
Quaderni 7, Venice, 1978
Kaley, D., The Church of the Pietà, Venice, 1980
King, M., Venetian Humanism in an Age of Patrician Dominance, Princeton, 1986
Krautheimer, R., Early Christian and Byzantine Architecture, revised edition,
Harmondsworth, 1981
Lane, F. C., Venetian Ships and Shipbuilders of the Renaissance, Baltimore, 1934
Lane, F. C., ‘Family partnerships and joint ventures in the Venetian Republic’,
Levi d’Ancona, M., The Iconography of the Immaculate Conception in the
Middle Ages and Early Renaissance, New York, 1957
Lewis, C. D., Jr., The Late Baroque Churches of Venice (Ph.D. dissertation,
Yale University 1967), New York and London, 1979
Lieberman, R. E., ‘The church of Santa Maria dei Miracoli in Venice’, unpub-
lished Ph.D. dissertation, New York University, 1972
Lieberman, R., ‘Venetian church architecture around 1500’, Bollettino del Centro
Internazionale di Studi di Architettura ‘Andrea Palladio’, xix (1977), pp. 35–48
Lieberman, R., ‘Real architecture, imaginary history: the Arsenale gate as
Venetian mythology’, Journal of the Warburg and Courtauld Institutes, liv
(1991), pp. 117–26
Lorenzi, G. B., Monumenti per servire alla storia del Palazzo Ducale di Venezia,
Venice, 1868
Lorenzoni, G., ‘Santa Fosca di Torcello nell’ambito architettonico orseoliano’,
pp. 123–31
Written from Venice between 1849 and 1852, London, 1965
Luzzatto, G., Storia economica di Venezia dall'XI al XVI secolo, Venice, 1961
McCray, W. P., Glassmaking in Renaissance Venice: The Fragile Craft, Aldershot, 1999
Mangini, N., I teatri di Venezia, Milan, 1974
Marchesi, P., Il forte di Sant’Andrea a Venezia, Venice, 1978
Maretto, P., Venezia: architettura del XX secolo in Italia, Genoa, 1969
Maretto, P., La casa veneziana nella storia della città dalle origini all’Ottocento, Venice, 1986
Martène, E., Veterum scriptorum et monumentorum, III, Paris, 1724
Massari, A., Giorgio Massari, architetto veneziano del Settecento, Vicenza, 1971
Molmenti, P., La storia di Venezia nella vita privata, second edition, 3 vols, Turin, 1880
Morresi, M., Jacopo Sansovino, Milan, 2000
Moschini, V., Disegni di Jacopo Bellini, Bergamo, 1953


Okey, T., *The Old Venetian Palaces and Old Venetian Folk*, London, 1907


Palladio, A., *I quattro libri dell’architettura*, Venice, 1570


---

**BIBLIOGRAPHY**
BIBLIOGRAPHY

Pullan, B., Rich and Poor in Renaissance Venice, Oxford, 1971
Puppi, L., Michele Sanmicheli: architetto di Verona, Padua, 1971
Puppi, L., Andrea Palladio, 2 vols, Milan, 1973
Puppi, L. (ed.), Palladio e Venezia, Florence, 1982
Puppi, L., 'I Longhena a Venezia: da Brescia, non da Maroggia', in Studi per Pietro Zamperiti, ed. R. Varese, Ancona, 1993, pp. 473-84
Puppi, L., 'Michele Sanmicheli: punti fermi e nuovi ipotesi di ricerca', in H. Burns, C. L. Frommel and L. Puppi (eds), Michele Sanmicheli: architettura, linguaggio e cultura artistica nel Cinquecento, Milan, 1995, pp. 7-13
Puppi, L., Romanelli, G., and Biadene, S. (eds), Longhena, exhibition catalogue, Milan, 1982
Rodolfo, F., Le pietre delle città d'Italia, Florence, 1953
Romanelli, G., 'Ca' Corner della Regina a San Cassiano', in L'archivio storico delle arti contemporanee: contributi, iv, Venice, 1976, pp. 35-60
Romanelli, G., Venezia Ottocento: materiali per una storia architettonica e urbanistica della città nel secolo XIX, Rome, 1977
Romanelli, G., Ca' Corner della Ca' Granda, Venice, 1993
Romanelli, G., et al. (eds), A volo d'uccello: Jacopo de' Barbari e la rappresentazione di città nell'Europa del Rinascimento, Venice, 1999
Rylands, P., Palma Vecchio, Cambridge, 1992
Sagredo, A., Sulle consorzierie delle arti edificative in Venezia, Venice, 1856
Sanpaolesi, P., 'Aspetti dell'architettura del '400 a Siena e Francesco di Giorgio', Studi artistici urbinati, 1, Urbino, 1949, p. 166
Sansovino, F., Delle cose notabili che sono in Venetia, Venice, 1561
Sansovino, F., Venetia città nobilissima et singolare, ed. G. Martinioni, 2 vols, Venice, 1663
Santi, S., Ricordo di Fra Francesco Colonna e ragionamento sull'estetica architettonica, Venice, 1837
Schulz, J., review of Wittkower (1965) in *Journal of Aesthetics and Art Criticism*, xxiv (1965/6), pp. 458–9
Serlio, S., *Tutte l’opere d’architettura et prospettiva*, Venice, 1619
BIBLIOGRAPHY


Temanza, T., *Vite dei più celebri architetti e scultori veneziani*, Venice, 1778

Temanza, T., *Antica pianta dell’inclita città di Venezia delineata circa la metà del XII secolo*, Venice, 1781

Temanza, T., Zibaldon, ed. N. Ivanoff, Venice and Rome, 1963


Timofewitsch, W., ‘Genesi e struttura della chiesa del Rinascimento veneziano’, *Bollettino del Centro Internazionale di Studi di Architettura ‘Andrea Palladio’*, VI (1964), pp. 271–82

Timofewitsch, W., *Die sakrale Architektur des Palladios*, Munich, 1968

Timofewitsch, W., *The Chiesa del Redentore*, University Park and London, 1971


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