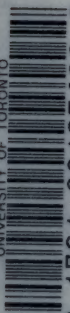
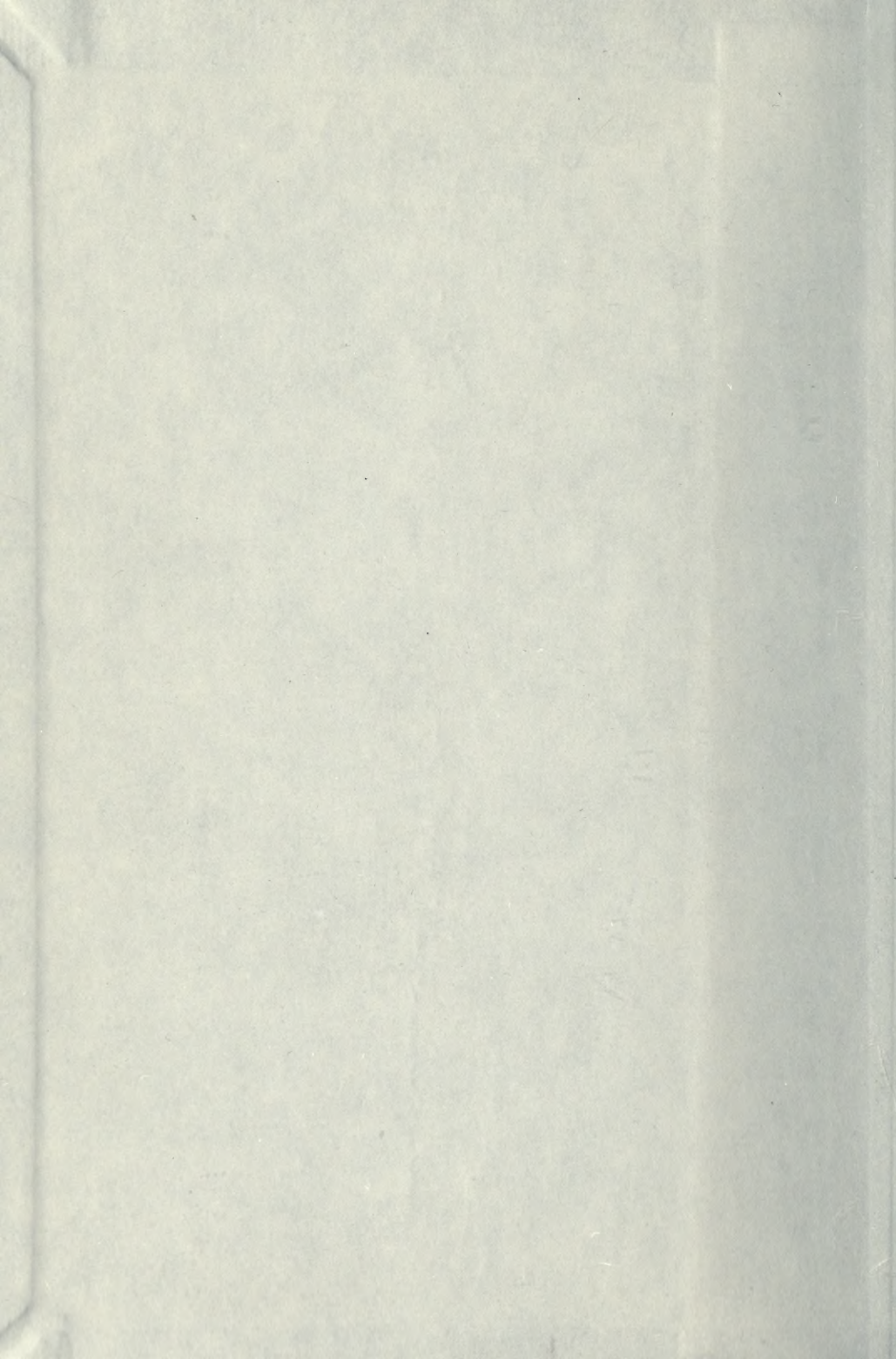


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GREAT BUILDINGS AND
HOW TO ENJOY THEM

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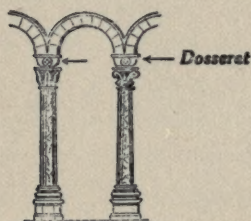
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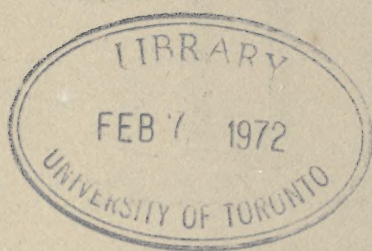


IN ST. DEMETRIUS, SALONICA; ARCHES
SPRINGING DIRECT FROM THE DOSSIERETS

LONDON
ADAM AND CHARLES BLACK

1912

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PREFACE

THIS is the fifth volume of a series of books dealing with the work of the world's master-builders, and written specially for the amateur with the object of supplying in the simplest language such information as is demanded by innate appreciation. The feeling, founded on personal experience, that there was a need for some such series of handbooks has been justified by the favourable reception accorded by critics and the public to the previous volumes—'Greek Architecture,' 'Romanesque Architecture,' 'Norman Architecture,' and 'Gothic Architecture'; that reception, together with the steadily maintained and growing demand for these books, has encouraged the production of the present volume, dealing on similar lines with the work of the Byzantine builders.

When it is the artistic appeal which prompts us to ask intellectual questions, there is always more or less impatience in the mood in which we seek for answers. First comes the enjoyment that is not born of knowledge, it is just an instinct; there follows the feeling that if we understood better we might enjoy more fully; then comes the search for knowledge as a means to an end. And that end is not knowledge for the sake of knowledge, but knowledge for the sake of getting into closer touch with a phase of human activity which has already aroused our interest. In these circumstances we experience little beyond hindrance and annoyance if we are compelled to extract the particulars we require from a voluminous mass of highly technical

Preface

matter couched in the language used by the specialist for the specialist.

The difficulty of making the necessary selection is greater in the case of architecture than in that of any of the other arts; for excellent as are many of the scholarly treatises already published, there was, prior to the inauguration of this series, little or nothing provided for the lay person. The man who is a lover of architecture without being a specialized student will, it is hoped, find in these books all that is necessary to render his architectural interests as complete and satisfying as he desires them to be.

A word of explanation is here necessary with regard to the scope of this and certain other volumes in the series. Although it is intended that the series shall constitute a Popular History of Architecture, and obviously such a scheme cannot be realized until every style has been dealt with, care is being taken to give each instalment a self-existence. In each volume the architectural style indicated by the title is first linked up with the past, then treated as a distinct entity, growing and developing on original lines, and finally considered with regard to its influence on contemporary or future styles of building.

But the Romanesque and Byzantine styles were both struggling to come into existence at the same time, and under the same dominating influence of a new religion—Christianity. The one was Western by nature, the other Eastern, yet during the Transition period, between the fourth and sixth centuries, the experimental builders in the East often used forms and features that eventually developed into the Romanesque style, and those working in the West often favoured Oriental forms and features that subsequently became characteristic of the Byzantine style. And even after the two-in-one Transitional style became disentangled into separate and distinct arts and crafts, Romanesque establishing itself in the Western arena, where barbarians were founding kingdoms, and Byzantine in the Eastern remnant of the Roman Empire, Byzantine buildings were sometimes erected side

Preface

by side with Romanesque specimens, and Byzantine influence led to the erection of buildings that were partly in the one style, partly in the other. This as a result of the Eastern Roman Empire becoming politically powerful in the West from time to time through force or diplomacy, and of commercial intercourse between East and West.

Hence the story of Byzantine architecture and that of Romanesque architecture are very closely interwoven, and although each has been told in a separate volume of this series, under a method that aims at making each book tell its own story from beginning to end, the two volumes dealing with the Byzantine and Romanesque styles are intimately related, and they have a third intimate relation in the Norman volume, for the Norman style is a branch of Romanesque.

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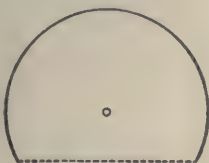
ARCHES.



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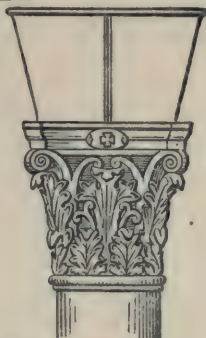


Segmental.



Horse Shoe.

CAPITALS.



Capital in Dome of the
Rock; (Mosque of Omar).



Capital in SS. Sergius and Bacchus.



Capital at Ani.

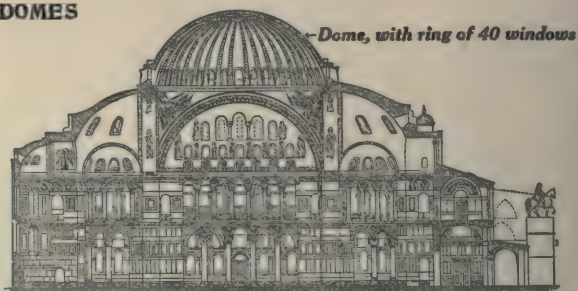


Impost capital in Sta.
Sophia, Constantinople.

COLUMN OR PILLAR



DOMES



Section of Sta. Sophia, Constantinople, from E. to W.

DOORWAY

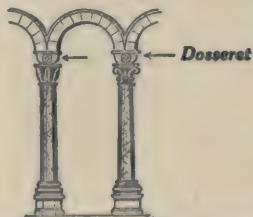


Round-headed

DOSSERET



View in Aisle of Dome of the Rock; capitals surmounted by Dossers, representing the Classical Architrave, and entablature intervening between columns and arches



In St. Demetrius, Salonica; arches springing direct from the dossierets

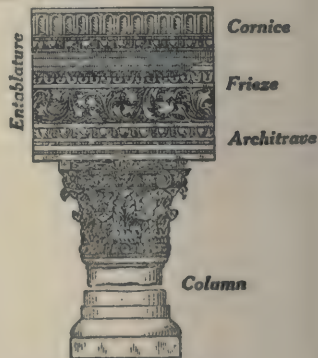
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Pendentive



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MOSAIC WORK.



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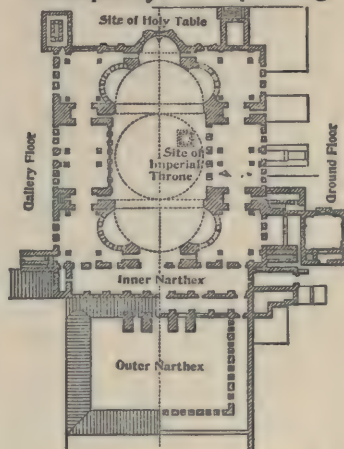


Developed Byzantine planning.



S. Vitale, Ravenna.

Developed Byzantine planning.



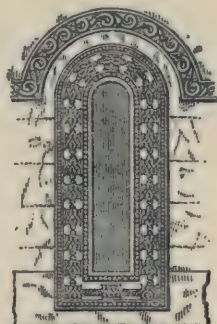
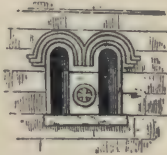
Sta. Sophia, Constantinople.

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EARLY CHRISTIAN AND BYZANTINE ARCHITECTURE

CHAPTER I

THE BIRTH OF BYZANTINE

ON February 23, A.D. 532, the Emperor Justinian laid the foundation-stone of a new church in Constantinople. Famous already was the scene of this ceremony. On the same site had stood one of the earliest churches erected for Christian worship, founded in the fourth century by the Emperor Constantine, who was the first ruler of the Roman Empire to establish Christianity as the State religion. This church had been burnt down in 404, during a riot caused by the banishment of John Chrysostom, Patriarch of Constantinople, who had offended the wife of the then reigning Emperor. Over its ashes a second church had been built a few years later ; eventually this, too, had been burnt to the ground by a frenzied mob, during a political tumult. Barely a month had elapsed since the second conflagration when Justinian laid the foundation-stone of the third church, which was destined to make the historic site world-renowned as the exhibition-ground of a new style of architecture—Byzantine.

By the magnitude of his building operations as a whole, Justinian is remembered and honoured as an eminent patron of architecture. Boundless was his ambition to strengthen and beautify his Empire ; he had a genius for planning architectural improvements on a vast and magnificent scale ; he took into his

Byzantine Architecture

service the best artists and craftsmen from far and near, gave them a free hand in money matters to carry out his schemes, and went into their suggestions with knowledge that commanded respect for the man as distinct from the Emperor, with sympathy born of artistic feeling, and with zeal that was infectious. In all parts of his dominions there arose numerous military, civil, and ecclesiastical buildings to testify to his enthusiasm for architecture, both as a useful and decorative art. But amongst all the many and divers structures erected under his orders, that church in Constantinople, of which he laid the foundation-stone in 532, was his supreme achievement as a building monarch; to this day it remains almost as perfect as it was when he and his chosen architects, Anthemius of Tralles and Isidorus of Miletus, called it into being.

The church was completed within six years from the date of its commencement, and on December 26, 537, it was dedicated, like its humbler predecessors on the same site, to Hagia Sophia—which, translated from Greek into English, means ‘Divine Wisdom.’

Why was a church in the Roman Empire given a Greek name, you are wondering?

The explanation lies in circumstances which I shall be telling you about presently, and you will find that they are intimately connected with the subject in which we are interested—Byzantine Architecture. But before we begin to discuss any other preliminary matters that call for attention, let us come to an agreement as to the name by which we will henceforth speak of Justinian’s monumental church, which, by the way, is now used by the Turks as a mosque. It has come to be commonly known as Sta. Sophia, which is a misleading title, suggesting that it was dedicated to a saint, by name Sophia. The idea that such was the case originated in the Middle Ages, and the name, which is expressive of this notion, is a relic of mediæval ignorance. Nevertheless, now that you know what that name does *not* mean, I think we, too, had better adopt it; for not only is it still used by

The Birth of Byzantine

the populace, but by nearly all architectural authorities, and it would be quite contrary to my purpose as your guide to designate anything connected with architecture by a little-used appellative, when it can be indicated by a popular one, for it is the disagreement over names in general that so often puzzles the amateur when he consults architectural experts.

In Justinian's ambitious imagination Sta. Sophia was conceived as an edifice that would outrival the finest buildings which had ever been erected in any part of the world. And when he first saw the finished church, he exclaimed, 'Solomon, I have surpassed thee!'

You are thinking how exaggerated unto absurdity must have been this criticism?

On the contrary, by comparing Sta. Sophia with Solomon's Temple, Justinian was far from doing his church justice. The famous Jewish temple was only about one-tenth the size of Sta. Sophia, it was much less scientifically constructed, and in all its glory, as detailed in the Biblical description, it could not have been so magnificently adorned as was Justinian's wonder-work.

Sta. Sophia is the supreme example of an architectural style to which has been given the distinguishing name, Byzantine. This descriptive adjective is derived from Byzantium, the ancient name for Constantinople, and it very roughly indicates where the style grew up. But both scientifically and artistically speaking, this name Byzantine covers numerous building activities, some original, some imitative, in various countries; and to get at a general idea of its meaning we must turn our attention to three revolutionary movements which vitally affected the history of the Roman Empire, and which are recorded by the great historian, Architecture. These movements were by nature—

- A. Religious.
- B. Political.
- C. Racial.

Byzantine Architecture

The birth of Christianity led to the first modifications of the Imperial Roman style of architecture.

Let us for the moment take Christianity by itself as a building incentive. The new religion first favoured a style of architecture that was more nearly Eastern than Roman in origin. This was the result of circumstances which allowed a comparatively small minority of Christians in the eastern and more remote quarters of the Roman Empire freedom to worship in public when the majority of the sect, living in and around the centre of government, were a persecuted people. In North Africa, Syria, and Asia Minor, churches were erected for Christian worship as early as the first half of the third century, if not before. These first Christian churches, erected in a style that was dominated by Oriental influence, may be regarded as the initial step in the development of Byzantine architecture.

I want you to keep the period of the *first* Christian churches, prior to A.D. 300, distinct in your minds from the Early Christian epoch succeeding it; for during the period which is commonly spoken of in a general sense as Early Christian, and which comes roughly within the limits of the fourth century and the early part of the sixth century, the style of building that was practised contained the elements of what afterwards proved to be two new styles of architecture—Byzantine and Romanesque. We will call that interval of time I have just mentioned the ‘Transition Period,’ meaning thereby the period during which heathen architecture was being transformed into Christian architecture. But, as you will soon see, politics played an equally important part with religion in founding the Transition style.

Early in the fourth century the Roman domains came under the rule of a Christian Emperor, Constantine, who granted his comparatively few Christian subjects the same rights as were enjoyed by the vast majority of pagans in the Empire. Christianity at once began to spread rapidly throughout Constantine’s wide dominions, and in spite of renewed persecution of its followers under later Emperors of pagan faith, it not only

The Birth of Byzantine

continued to triumph as an emotional force, but began to be recognized as a political power. Up to the time of Constantine, the Christians in most parts of the Empire had been obliged to hold their services secretly—in a private room, a cave, a deserted temple, or the catacombs. Directly they were everywhere free to worship in public, their practical needs and reverential feeling created a wide demand for places of assembly which could be consecrated to their religion. Some of the Roman temples were converted into churches, as also were many of the Roman basilicas—the old halls of justice and commercial exchanges. But necessity for further accommodation and zeal for the cause were soon urging the Christians to erect new buildings, such as were required for the due observance of their faith, and the administration of ecclesiastical business. Moreover, Constantine took a keen interest in building, and many Christian edifices were erected as a direct result of his personal energy and influence.

The chief types of buildings erected during the Transition period were churches, baptisteries, and tombs. The plans of these Early Christian productions were basilican or oblong, cruciform, and circular. It is generally believed that the Christian basilica was a copy of the Roman pagan basilica—an oblong hall, divided by rows of columns into three or five aisles, and terminated in a semicircular recess—with the slight modification of extending the recess to form an apse that was a more individual feature, its promotion to greater architectural prominence being due to the fact that it was now called upon to serve as a sanctuary instead of as the seat of a secular tribunal. The cruciform plan is supposed to have been developed by the Christians from this basilican model by the simple modification of leaving a clear and wide transverse space, called the 'bema' or 'presbytery,' at the apsidal end, thereby transforming an oblong into a Latin cross. The Early Christian circular buildings, mostly baptisteries and tombs, are usually considered to have had as a model the Roman circular temples, circular tombs, or circular portions of Roman baths. With regard to the system of construction in use during the

Byzantine Architecture

Transition period, there is no doubt that the builders practised Roman methods to a considerable extent ; moreover, they frequently incorporated into their productions ready-made details of old Roman buildings.

Since it is very possible that you are being tempted to jump to the erroneous conclusion that the architecture of this period was wholly Roman, both in inspiration and treatment, I must hasten to explain the political situation in the Roman Empire between the fourth and sixth centuries.

In A.D. 324 Constantine transferred the capital of his Empire from Rome to Byzantium, known to us as Constantinople—the ‘City of Constantine.’ The new capital of the Roman Empire was an old Greek Colony, strongly imbued with Greek feeling, and it was in close contact with the East. Gradually the builders in and around the new centre of government were influenced by the spirit of the old Greek master-builders, who had derived much knowledge and inspiration from such great Oriental craftsmen as the Assyrians and Egyptians ; gradually they not only adopted and adapted Oriental designs for sculptural ornamentation, but they began to experiment with Oriental constructive methods. The dome, an entirely Eastern invention, won their admiration, and with great enthusiasm they set themselves to the task of reproducing this form of roof.

Thus it came to pass that the architecture of the Transition period, whilst owing its existence largely to the emotionally creative force of Christianity, was of mixed heathen descent, its parents being Roman architecture and Oriental architecture, and its cradle was an ancient city of pagan Greece.

But although many of its outstanding traits were the result of descent and environment, there was much originality in its character. The builders of this period were not mere copyists ; they were experimentalists. As students they were particularly fortunate in that they had opportunities of deriving knowledge and inspiration from both the old Roman and Oriental master-builders ; solely to their own credit, however, be it remembered

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they were ideal students, who made acquired knowledge the working basis for realizing individual ambition, springing from inborn genius. They so far adapted the Roman basilica to meet Christian needs that the Early Christian basilican churches served as models for the most famous churches built in Western Europe up to the thirteenth century—that is to say, they were the pioneers of Romanesque architecture, Romanesque being the name given to the style of building that was developed in Western Europe from Roman elements in the Transition style, particularly the basilican form. Again, the builders of the Transition period invented a new system of domical construction (the principles of which I shall be explaining to you presently), thereby becoming the pioneers of Byzantine architecture—Byzantine being the name given to the style that was evolved in the Eastern portion of the Roman Empire through the development of circular planning, made possible by the more scientific treatment of that essentially Oriental element in the Transition style—the dome.

Throughout the greater part of the Transition period circumstances combined to encourage the Transition style of building to approximate more and more closely to that new and individual style which was ultimately revealed in all its skill and splendour by the Church of Sta. Sophia at Constantinople. For soon after the removal of the capital to Byzantium, Roman political supremacy was undermined by two devastating forces :

1. A 'split in the civil camp,' by which Roman domains were divided into two Empires, an Eastern and a Western one, each under a separate ruler.

2. Foreign incursions; barbarian hordes from the North began to invade Roman territory.

The Northerners first gained a footing in the Empire towards the close of the fourth century, when the Goths were allowed to cross the Danube. The first settlers were humble fugitives, fleeing from an Asiatic foe, but in view of the persistent way in

Byzantine Architecture

which the Northern tribes had embroiled the Romans in border warfare, it is not at all surprising to find that the Goths, when once across the borders, were soon waging war on their protectors. Political dissensions among the Romans naturally tended to play into the hands of their enemies. In A.D. 410, the West Goths, or Visigoths, under Alaric, sacked Rome, and although their next King went to Spain nominally as a Roman officer, his rule was practically the beginning of a West Gothic kingdom in Spain and Southern Gaul, the first Germanic kingdom founded within the Roman Empire. Other Germanic kingdoms were soon being formed in the West; one was established by the Vandals in Spain, another by the Burgundians in South-Eastern Gaul, another by the Franks in Northern Gaul, and yet another by the Angles, Saxons, and Jutes in Britain; and before the end of the fifth century the East Goths, or Ostrogoths, had added to the number by founding a kingdom in Italy. Meanwhile the Roman Empire had passed through a series of political crises. In A.D. 364 the Roman domains had been divided into two sections, and separate Emperors had been elected to govern these Eastern and Western divisions. Subsequently these divisions were reunited under one Emperor, again divided, and once again reunited before the end of the fifth century; but by the time this last reunion was brought about, the West, as we have seen, was the cradle of numerous Germanic kingdoms, so that the Emperor at Constantinople was only nominally the ruler of a still so-called Roman Empire. As a matter of fact, there was no longer a Roman Empire in a strictly national sense: the Western dominions of the old Romans had become, practically speaking, politically independent, and great racial changes had already been brought about; and although the Eastern European and Asiatic lands forming part of their wondrous bequest were still united as one political Power, the civilization of this combine was now more Greek than Roman. The eastern part of the Roman Empire had practically been transformed into a new Greek Empire; its capital, Constantinople, had developed into an important seat of Greek art and

The Birth of Byzantine

learning, and although Latin was still the official language, Greek had become the language of the people.

You will not be at all surprised to hear that very little building was done in Western Europe during the latter part of what we have called the Transition period. Indeed, such a peaceful art had no chance of arousing interest in this region for some centuries to come, for the various barbarian tribes had turned this part of the world into a vast battle-field, and although they had not definitely wrested it from the Eastern Emperors, they were fighting against each other for territorial rights. But in A.D. 799 the West became a united Empire, and the election of the Frankish King Charlemagne as ruler thereof put the seal on the political freedom of the barbarians. Under Charlemagne's régime, the West again became a centre of civilization, in which flourished art and learning; and now it was that architecture was given a new lease of life in Western Europe. In the new civilization Roman influence played a prominent part; the barbarians had been thrown into close contact with the Roman inhabitants of the West, many of them now spoke a language that was partly their native tongue, partly of Roman origin, and Romans and barbarians had intermarried. Moreover, the great buildings standing on the conquered lands were nearly all the work of the old Roman master-builders. Naturally, when building operations were begun in the new Western Empire, the style of the early productions was largely Roman; and as Christianity had become the religion of the victorious invaders, the new builders naturally turned for help to the Early Christian works of the Transition period, and favoured those Roman-born and Christian-bred features thereof, such as the basilican and cruciform plans. Thus, after the lapse of centuries, the Transition style gave birth to Romanesque, which was established as a new and distinct style by the original genius of the barbarians. And although the Western Empire became politically divided by the growth of European nations, each working out its own civilization and struggling to become the supreme political Power, the Western

Byzantine Architecture

builders of all nationalities constituted a brotherhood of artists who steadfastly pursued the Romanesque ideal. Having elected to adopt the basilican and cruciform plans, their ruling ambition was to cover over the oblong spaces in these forms with a continuous series of vaults. By the thirteenth century success had crowned their efforts, and thus there was born of Romanesque the Gothic style.

You have now seen why there was a lapse of centuries before certain imitative and original features in the fourth to sixth century Transition style were given an opportunity of showing how, under the command of men of genius, they were capable of producing a new style of building ; and you know that when, eventually, they had a favourable opportunity for growth and development, they served as the basis of that Western Christian style of architecture called Romanesque, which in its turn gave birth to Gothic. In a word, from a combination of purely Western features in the Transition style sprung all the Christian buildings that were erected in Western Europe up to the time of the Renaissance Movement, in the fifteenth century, when the Western nations were seized with a passion for learning, and became so enamoured of everything Classic that they called on their builders to cease practising a style that was now that of a thoroughly original Western art, and to begin building in the Classic style.

When first calling your attention to the troubles that led to the downfall of the Western Roman Empire, I told you that circumstances combined to encourage the Transition style to develop on Byzantine lines. To explain those circumstances, I had to centre your attention on the West, and for the purpose of simplifying, as far as possible, a complicated era of European and Asiatic history, I elected to continue the history of architecture in the West up to the time when the Byzantine style came to an end in the East ; for, at some time or other, I was bound to make you acquainted with the broad meaning of the terms *Romanesque* and *Gothic*, since during our expedition I shall want to talk to you

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about the influence of the Byzantine buildings we are going to see on contemporary buildings erected in the styles indicated by those Western terms. I will now continue with the history of the Transition style in its relation to Byzantine architecture.

In the Eastern Roman domains building operations were carried on pretty extensively during the Transition period ; for, generally speaking, this region was remote from the great battle-field where the fierce fight was raging between Romans and barbarians, and preventing any such civilized activity as building. Not that the eastern part of the Empire was left undisturbed by destructive forces—the Vandals succeeded in establishing a kingdom in North Africa ; other barbarian hordes made desperate efforts to get a firm footing in Eastern Roman territory ; the neighbouring Persian Empire made trouble that led to war ; civil and religious dissensions also played an active part in harassing the Government at a time when all its energies, all its diplomatic capacity, all its troops were needed to cope with the situation in the West. Nevertheless, the Eastern part of the Roman Empire was so far successful in dealing with its enemies that the march of civilization was only subject to temporary checks ; and in the course of the general progress that was made numbers of buildings were erected in Constantinople, Salonica, Greece, Syria, Asia Minor, Armenia, North Africa before it fell into the hands of the Vandals, and in Italy, that border-country between East and West which was for long destined to be directly under the joint control of Eastern and Western rulers. Some of these buildings were basilican or cruciform in plan, but the most popular form was circular-domical.

I have already told you how it came to pass that the Eastern part of the Roman Empire was gradually being transformed into a new Greek Empire during the Transition period, and how, as one consequence of this change, the builders came under the influence of the spirit of the Greek master-builders. Also, I have explained why it so happened that the majority of the buildings erected during this period were situated in Oriental lands.

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Therefore I think you will now understand and appreciate the best definition of Byzantine architecture I have ever come across. 'Byzantine architecture,' says Banister Fletcher, 'is the Greek spirit working on Asiatic lines.'

And circumstances, as I have done my best to explain to you, contrived to induce the Transition style to merge steadily into Byzantine, whereas they kept the twin germ of Romanesque lying dormant for several centuries.

Having seen how Byzantine architecture came into existence, we will now proceed to follow its career.

CHAPTER II

THE DEVELOPMENT OF BYZANTINE

THERE is considerable difference of opinion as to when it is historically correct to begin talking about a Byzantine Empire. In this very arbitrary question of fixing a date limit, let us be guided in our decision by architecture. In A.D. 532 Justinian began to build his famous church of Sta. Sophia in his capital at Constantinople, and all architectural authorities agree that this building was the first realization of a fully-developed Byzantine style. Do you not therefore feel that although, territorially speaking, Justinian ruled over the Eastern portion of the Roman Empire, practically he was the first monarch of a newly-evolved Græco-Oriental Empire, which is best described by the name 'Byzantine'? Nevertheless, you must bear in mind that the long-continued existence of this Empire as a great political Power was largely due to the fact that its system of government was based on Roman laws.

When Justinian became Emperor in A.D. 527, he vigorously pursued a foreign policy which aimed at expansion, and by the aid of his able generals, amongst whom was the famous Belisarius, he took Africa, Sicily, Italy, and Southern Spain from the barbarians. These conquests in the West were particularly remarkable achievements, because Justinian had to carry on war with the Persians, who tried to lop off Syria and Armenia from the Eastern side of his Empire, and also he had to deal with the Slavs and Huns, who made raids into his territories of Thrace and Illyricum, near neighbourhoods to Constantinople. I have

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already introduced you to Justinian in his rôle or building monarch, and to give you some idea of the extent and magnitude of his building operations I shall have to take you to Constantinople, the Holy Land, Asia Minor, and Italy, where are situated the principal existing specimens of the numerous architectural works carried out during his reign.

The age of Justinian is noted for an ecclesiastical event which is intimately connected with the development of Byzantine architecture—the separation of the Christian Church into an Eastern or Greek Church, and a Western or Latin-Catholic Church. Byzantine churches came to be specially planned to suit the ritual of the Greek Church.

Soon after Justinian's death the northern part of Italy was wrested from the Byzantine Empire by a barbarian tribe known as the Lombards, or Longobards. But the Byzantine Emperors maintained a hold on this border country for some centuries longer, Ravenna being the seat of their representatives, bearing the official title of Exarch, until 752. Sicily they held until the middle of the tenth century.

The general wreck of the Empire was brought about by a new religion—Mahometanism. The Saracens, as all the followers of Mahomet were called, no matter what was their nationality, began to attack the Byzantine dominions early in the seventh century; but it took them over 800 years to wipe out this Eastern Power.

The extent to which the Saracens rapidly established themselves as a new political as well as a religious power in the world is indicated by the barest outline of their conquests. Mahomet made himself master of Arabia. After his death his followers simultaneously attacked both the Persian and Byzantine Empires. By 651 they had conquered Persia. Meanwhile, Syria and Egypt had fallen into their hands. In 673 they succeeded in forcing the Hellespont and in landing troops in Thrace. Thus they were able to blockade Constantinople. The besiegers retired with the coming of winter, but their fleet still held the

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Hellespont ; in the spring the army was again landed, and the siege of the Byzantine capital renewed. These tactics were repeated annually until 677, when the defending forces put an end to the Saracenic occupation of the Hellespont by the use of 'Greek fire.' History does not tell us how this highly inflammable combustible was compounded, but petroleum is believed to have been one of its ingredients, and water seems to have been powerless to extinguish it.

Although the Saracens failed to capture Constantinople, they continued to achieve successes whereby they further reduced the extent and power of the Empire. By 709 they had conquered North Africa, and between 710 and 713 they established their rule in Southern Spain. Then in 717 they again besieged Constantinople, but again they failed to take the city.

Their defeat on this occasion marks the beginning of a new era of prosperity for the Byzantine Empire, owing to the accession of an exceptionally able Emperor, Leo the Isaurian. Before beginning to deal with that new era, I should like to point out to you that the Saracens were great builders ; some day I hope to be your guide on a pleasure-trip amongst their architectural creations, but just now I must only tell you that Byzantine architecture played a very important part in the development of the Saracenic style.

By numerous and drastic civil and military reforms, Leo the Isaurian snatched a shattered Empire from the jaws of death, and gave it strength to keep the Saracens at bay for many centuries to come. His reform policy, however, was responsible for an ecclesiastical law which was for long a disturbing influence. In 726 he issued an 'Iconoclastic' edict, which forbade image-worship as superstitious, and inimical to the true faith ; and to enforce this law all statues were removed from churches, and frescoes of saints on the church walls were obliterated with white-wash. Thus, from the artistic standpoint, this edict was a triumph of Philistinism ; the revolt against the Iconoclastic movement effected a change in the law, about the middle of

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the ninth century, whereby painted figures were once more allowed to be used in the decoration of churches, but sculptured statues were still kept on the 'black list.' Although Leo's religious views limited the scope of ecclesiastical art, his reform policy in general was a stimulus to architecture. Owing to the Saracenic invasions, very little building seems to have been done in the Byzantine provinces during the seventh century ; now that the enfeebled Empire had been skilfully administered into a stage of convalescence, architecture was given a fresh lease of life. The church of Sta. Irene at Constantinople was rebuilt ; here was exhibited for the first time a new invention, whereby the dome was raised on a circular drum. This change in the constructional methods of the old Byzantine builders established what has come to be known as the Neo-Byzantine style of architecture.

Onwards to the twelfth century the Byzantine Empire passed successively through three epoch-marking stages of its career—a period of recuperation after its deadly struggle with the Saracens, a period of prosperity and expansion, and a period of decay. During these centuries it still had trouble with the Saracens ; indeed, in 782 these old enemies were able once more to besiege Constantinople, and this time bribery had to be used to turn them aside from their very threatening purpose. But the most fearsome foes of the resuscitated Empire were the Russians. Russia, who has never ceased to look on Constantinople with ambitious eyes, was now in her infancy as a European Power ; nevertheless, she proved a plucky and formidable antagonist. On four occasions, in 860, 907, 941, and 1043, the Russians besieged Constantinople ; only by the most determined efforts, and at a great cost of life and ships, were the Byzantine army and fleet able to cope successfully with the last two invasions. But in 1046 peace was concluded, the two Powers became friendly, and Byzantine influence began to take a prominent part in the weaving of Russian civilization. The Russians conceived a strong admiration for the Byzantine style

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of architecture, which led to the development of their own national style, known as Russo-Byzantine.

At the beginning of the thirteenth century the mighty fortress-capital of the Byzantine Empire was at last captured—by a Western coalition. In the middle of the eleventh century the nations of Western Europe had enrolled an international army of Christians, called Crusaders, whose express business was to protect the Christian subjects of the Saracens, and guard the pilgrims visiting the Holy Land against Mahometan persecution ; for the Saracenic domains in the East had now come under the rule of the Seljuk Turks, who treated the Christians very cruelly. The ragtag-and-bobtail of the West enlisted as Crusaders, and the rabble troops who set out for the East in 1095, with the avowed object of waging a Holy War to recover Jerusalem from the Turks, were no more civilized and much less soldierly than the Salvation Army of Arab bandits who had joined Mahomet when he changed *Islam* from a dreamer's creed into a General's battle-cry. These first Crusaders, on adventure bent, arrived in Constantinople devoid of supplies and wellnigh penniless ; it Alexis, the Byzantine Emperor, had not befriended them they would, indeed, have been in a hopeless plight. He provided them with supplies ; also, in the pursuit of the Empire's interest be it admitted, he joined forces with them in the siege of Nicæa. Alexis paid them handsomely for their 'share' in the capture of Nicæa, which meekly surrendered to him in sheer terror of getting mixed up in any way with that Western rabble ; and when the Crusaders continued their march eastward, fortified with food that had been provided by Alexis, and with supplies bought with the money he had given them, a division of Imperial cavalry accompanied them. That the Crusaders eventually succeeded in capturing Jerusalem was in no little measure due to the treatment they had received from Alexis and fellow-Christians of Constantinople ; albeit, such help was not wholly disinterested. Subsequent Holy Wars were more in the nature of commercial enterprises ; hence sprung the ambition of the

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Crusaders to capture Constantinople, the junction of trade between East and West. In 1201 the Fourth Crusade was organized ; the Crusaders, now a more civilized and disciplined army, were called to arms to recapture Jerusalem, which had again fallen into the hands of the Turks. But Christians ready to fight Mahometans in the interest of the Christian cause were turned aside from their purpose by commercial ambition and political rivalry to wage war on their fellow-Christians in Constantinople. The crusading army mobilized at Venice, which by this time had become an important trading city. The Venetians persuaded the Crusaders to attack Constantinople, and proposed to join in the expedition, in the hope of destroying the prestige of this commercial rival, and making their own port the central depôt for Eastern and Western trade. The son of a deposed Byzantine Emperor appeared on the scene, and promised the Crusaders money and troops to help carry on the Holy War if they would first proceed to Constantinople, and restore his father to the Imperial throne. The Pope, who had promoted this Crusade, was the one fear of the conspirators ; they were afraid he would excommunicate them and Venice as well if he got wind of their scheme. However, the plot developed into a compact between Venetians and Crusaders to invade Constantinople, and negotiations and arrangements for the plan of campaign were all carried on so secretly that no hint of the project reached Rome ; but as an anticipatory measure for propitiating the Pope, a clause was inserted in the compact, stating that the Greek Church was to acknowledge the supremacy of Rome. In 1203 the Venetian fleet and the crusading army reached the Bosphorus ; in July, 1204, the allies took Constantinople, proceeded to sack the city, and elected a Frank as Emperor.

A savage horde of heathens could not have celebrated a victory more barbarously than did the Christian conquerors of Christian Constantinople. They murdered thousands of the inhabitants, plundered both the living and the dead, pillaged the houses, burned

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libraries of rare and precious manuscripts, and melted down for the mint all the bronze works of art. And what concerns us most as architectural enthusiasts, they destroyed numbers of beautiful buildings, particularly churches. Such was the animosity of the Western Christians for the Eastern Christians, due to the long-standing rivalry between the Greek and Roman Churches, that the Western clergy among the conquerors perpetrated some of the worst of the horrors. The broad-minded, therefore, of every sect and creed will be glad to know that the Pope, when he heard of what had happened, was not propitiated by that clause in the conspirators' agreement, whereby the Eastern Church was to be subject to Rome ; on the contrary, he wrathfully declared that no good could ever come of this conquest. How much truth there was in this prophecy is largely a matter for conjecture ; possibly Constantinople would still be a Christian city if it had not been rushed to the verge of ruin by the Christians in the thirteenth century. The Latin conquest of the city realized for Venice her commercial dream, and with the deflection of Constantinople's world-wide trade to this and other Italian ports, Constantinople steadily lost her wealth and importance.

In 1261 the Greeks recaptured the Byzantine capital, but meanwhile the Byzantine Empire had been despoiled of territory by Bulgarians and Turks. During the next two centuries the Ottoman Turks gained ground by the complete conquest of other Byzantine provinces, and by reducing yet other of them to a state of vassalage ; and in 1453 they completed the wreck of the Empire by capturing Constantinople.

In spite of all the troubles it had to face during the long centuries of its career from the time of its foundation by Constantine, Constantinople remained the treasure-house of Greek learning up to the time of the Ottoman conquest. But when it became the prey of its old enemies, the Saracens, Eastern scholars fled to different parts of Western Europe ; their dispersion was one of the principal causes of the Revival

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of Learning, which gave birth to the Renaissance style of architecture.

Thus, the Byzantine style was not, as it might very possibly have been, transported to the West by the scholarly and artistic fugitives, and in the Near East it was superseded by the Saracenic style of the conquerors.

CHAPTER III

THE BYZANTINE BUILDERS

THE best starting-point from which we can most quickly arrive at a clear understanding of Byzantine constructive methods is a knowledge of the main purposes of a building.

In thinking of buildings in general we find there are three things they must do.

1. Enclose a space.
2. Contain openings for the passage of people, light, and air.
3. Serve as a covering.

Each of these functions makes its own insistent demand on the would-be builder, so that in order to have any claim to recognition as a skilled workman he must at least be able—

1. To erect walls that will stand firm.
2. To maintain the outline of door and window-spaces.
3. To construct a roof that will not fall to the ground.

So long as the builder's main object is to fulfil these demands efficiently from the purely technical standpoint, he is likely to remain merely a craftsman. Directly he tries to get results that will combine beauty with utility we find the spirit of the artist working within him. Later on we shall try to discover how far the ideal of beauty influenced the Byzantine builders ; just now we will confine our attention to seeing how they managed to erect buildings that would stand firm and fulfil their three essential duties. In a word, we are going to learn the A B C of Byzantine building construction.

From an architectural standpoint the principal preliminary to building operations is the preparation of a plan. The basis of the

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plan is some mathematical figure, such as a square or a circle ; but numerous conditions, such as the shape and situation of the site, and the life's purpose of the building that is to be erected, call for modifications of the purely mathematical plan, and thereby give scope for individuality in design. For instance, the disposition of parts for specific duties, which have to be fitted together into a whole building having one definite duty, and the arrangement of the interior, present a variety of problems that can only be satisfactorily solved by a rare combination of creative genius and technical skill. When I take you amongst Byzantine buildings, you will be able to see for yourselves that they were planned by artists who had uncommonly fine imaginative and intellectual powers, and that they were executed by exceptionally clever and enterprising craftsmen. By the way, the modern world is too inclined to think that only a great painter is entitled to the name of artist. I take it that you and I, mere pleasure-seekers though we be, are equally resentful, and feel equally justified in our resentment, against this niggardly and prejudiced method of bestowing the most honourable of all titles. As contributors to the world's treasury of beautiful things created by man, all the old master-builders were artists without a doubt ; and there is much evidence, for those of us who are sufficiently interested to be on the watch for it, that the artistic world of to-day numbers among its aristocracy of genius some modern master-builders.

Having planned a building, the Byzantines proceeded to erect the shell. First, the walls were put up, and the favourite material for these was brick. Bricks, as you know, are manufactured articles ; hence their quality depends on the morality, no less than on the skill, of their makers. The Byzantine builders took care to obtain the finest quality, well-baked bricks. The form of this small material varied, but the most popular shape was a thin slab about $1\frac{1}{2}$ inches in depth. The second highly important consideration in connection with brickwork is the mortar with which the bricks are laid in courses to be united into one solid

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body of considerable dimensions ; the mass will soon collapse if the binding material is of poor quality. Through being guided by the rule that the best is the most economical in the long-run, and by the exercise of much trouble and patience, the Byzantines produced a remarkably durable binding mixture composed of lime, sand, and crushings of pottery, tiles, or bricks ; and in massing their materials, they generally made the mortar-joints of a thickness equal to that of the bricks. The main walls were composed of a concrete core with brick facings. Byzantine walls always rose from a foundation that took a firm grip of the ground. Knowing what you now do about their construction, you will not be surprised to find numbers of them still standing in perfect condition after centuries of exposure to the vagaries of climate, still performing their double duty of enclosing a space and helping to carry the weight of a roof. Indeed, you will be quite prepared to come across Byzantine walls that have withstood the onslaught of such destructive forces as foreign invasion, political riots, and religious fanaticism ; and since the wreckers succeeded in so far demolishing and disfiguring vast numbers of buildings that there is now little or nothing more than bare walls to prove that such and such a spot was once the site of a Byzantine specimen of architecture, I feel sure that the ruins, no less than the perfect examples I propose showing you, will help you to realize the excellence of quality, both as regards materials and workmanship, in Byzantine buildings as a class. Some of the walls erected by the Byzantines for purpose of defence rank among the sturdiest fortifications in the world.

Only the main boundaries of a building have been marked when the ground-space allotted to it has been enclosed by solid walls. No matter what be the general use for which the building is destined, some inner boundaries are sure to be required to partition off spaces for this and that special purpose. The internal boundaries set up by the Byzantines were, eventually, a perfect structural combination of pillars and arches. To enable you to appreciate the extent to which this combination was a

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scientific triumph, I must show you the steps by which pillars were made to support arches.

The old Greek master-builders used columns to support a horizontal, beam-like superstructure called the 'entablature.' The Romans adopted the column and beam from the Greeks, and added thereto, as a fundamentally constructive feature, the arch, which they borrowed from another source. In the new style of architecture they evolved, the entablature was borne by piers—masses of masonry that constituted a long, strong wall, pierced at intervals by arched openings providing passage way. At first the piers were strengthened by semi-attached columns, which, by doing duty as buttresses, played a minor part in carrying the arches, and thus helped to support the superstructure. But the tendency was to make the piers self-reliant in their rôle or carriers, and gradually columns came to be put in company with arches purely as ornamental features. After having accustomed us to this degradation of the column, Classical Roman architecture provides us with a great surprise in a building erected during the declining days of the style. In the Palace of Diocletian, at Spalato in Dalmatia, columns are seen to have won favour again as features that need be none the less beautiful because they are called upon to be useful. Here we find them performing the entirely new duty of supporting arches which spring directly from their capitals.

This remarkable experiment, foreshadowing a great revolution in the science of building construction, was prevented, by religious and political upheavals, from leading steadily to the systematization of progressive methods. Christianity in particular acted as a check on such methods at the outset of its influential career. In the first flush of their joyous excitement at being allowed to worship in public, the Early Christians merely wanted reserved enclosures consecrated to their religion, and their ambition was to provide accommodation for a congregation with the least possible delay. There was no time for builders to devote attention to technical problems, no stimulatingly artistic demand to

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foster progressive architectural science in days when the ruling ambition to get a church completed as quickly as possible was so strong that ready-made details of old pagan buildings were eagerly collected for use in any possible way as parts of an enclosure for Christian worship. Columns were set up in line to support a superstructure with no idea other than that they must be strong enough to perform this duty ; that the proportions and decorative design of structurally united parts were not harmonious was a matter of no importance. And when no ready-made columns were available, the Early Christian builders were content to imitate the long-established Roman system of supporting a superstructure on piers pierced by arches. But with the removal of the capital of the Roman Empire to Constantinople, artistic ideals began to play a part with the practical demand for accommodation in regard to the erection of Christian buildings ; and, as these ideals became more and more active, not only was the decorative artist called upon to embellish the shell of a building, but the structural craftsman was encouraged to make the shell itself a thing of beauty.

Hence the builders of the Transition period were soon experimenting with the Roman experiment of making columns support arches. They brought the column and arch into organic conjunction by means of a wide block called a 'dosseret,' which was placed on the capital to serve as a base for the springing of the arch. From the artistic standpoint, the value of the dosseret depends on individual taste ; some people regard it as a clumsy form of link, others look upon it as a highly pleasing new feature in construction. As a utilitarian detail, the dosseret is generally admitted to bear witness to the inventive genius of the Byzantines ; they elected, for reasons best known to themselves, to use columns and arches which, mathematically speaking, were not of the right proportions to be fitted together, and through the medium of the dosseret they not only structurally united parts of unequal measurement, but artistically adjusted their relative proportions. The origin of the dosseret is a matter of dispute ; it

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is, however, supposed that this very accommodating detail corresponds with the classical architrave, or lower part of an entablature. Columns and arches were organically combined in the way I have just explained to you for the purpose of carrying a superstructure, such as a gallery. The dosseret, which made its appearance during the Transition period, was commonly used by the old Byzantine builders ; their descendants, who developed the Neo-Byzantine style, were able to dispense with this go-between by so proportioning columns and arches that the capitals of the former provided a sufficiently expansive basis to carry the springing of the latter.

Some Byzantine columns were of brickwork construction ; others were shaped out of great blocks of marble, or of such precious rock as porphyry.

The form of capital that came into use during the Transition period, and was perfected by the Byzantines, bears striking testimony to the activity of artistic ideals during the development of a purely Christian style of architecture. The decorative columns of the Romans had concave capitals with projecting ornamentation. Such capitals were considered to be too fragile in appearance for columns that had to perform the duty of carrying arches ; hence arose the tendency to reverse both the curve of the form and the relief of the carving, and by Justinian's time there had come into general use beautiful and capable-looking convex capitals with incut ornamentation, such as we shall see in Sta. Sophia at Constantinople.

Turning our attention to Byzantine doors and windows, we find that such openings were generally round-headed ; sometimes, however, they were spanned by a horseshoe arch. The windows were very small ; at first, light was introduced through isolated single or double niches, but later on the openings were grouped. The sides of door and window spaces were protected by dovetailing the marginal bricks, and in the case of thick walls with a concrete core, the boundary bricks were embedded in the concrete.

The third, and last, technical problem of importance that will

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be presented to our minds by Byzantine buildings concerns the method by which they were provided with a covering. The typical Byzantine roof is a dome crowning a square or octagon. So simple is the method by which a rectilinear apartment is surmounted by a circular covering, that we cannot possibly do justice to its Byzantine discoverers until we have considered the difficulties with which they had to contend the while they were ambitiously trying to extend the scope of domical construction.

The old Roman builders had a keen appreciation of the artistic value of the dome. There is considerable difference of opinion as to how they constructed this form of roof; but it is known that the material they used was a quick-drying concrete—except in the case of one very famous dome which I shall be telling you about presently. In all probability the construction of these concrete domes necessitated an immense amount of preliminary labour; presumably a framework had to be erected and provided with strong supports, so that it would carry the weight of a mass of concrete several feet in thickness, the while this material was being moulded together into one solid body by the natural process of drying. Thus the Roman dome was a massive, one-piece lid, which was self-reliant as regards form; it covered a circular space, and its weight was carried by the enclosing walls. Light was introduced by the primitive device of leaving a hole in the centre of the dome. That the Romans were not satisfied with their general method of fashioning domes is evident from the remarkable experiment which they made, with striking success, when roofing over the rotunda of the Pantheon at Rome; here the great dome is built up with bricks laid in courses, by a system of construction that is highly scientific in contrast with the feat of moulding a lid in mid-air. It seems but logical to conclude that this change was inspired by the desire to do away with the necessity for an elaborate, temporary framework; with material in block-form, a dome can be built in courses with the simple assistance of rods attached to a central post in such a way

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that they can be freely called upon to act as a compass in tracing a circle.

The builders of the Transition period realized that although the Romans had made such great progress in domical construction, there were still many difficulties to be overcome before it would be no longer necessary to sacrifice certain practical conveniences to the artistic effect of a domical roof. Foremost among the limitations and defects of domed buildings were—

1. Such parts of the body of the buildings as were destined to be covered by a dome must be circular—fixed forms limit the scope of the designer ; moreover, circular parts are not disposed to unite, and a circular building frequently excludes much of the ground-space of a site.

2. An opening in the centre of the dome for the admission of light also lets in rain.

The Transition builders, and their direct descendants the Byzantines, swept away all the practical objections to the dome by inventing a method whereby this beautiful form of roof could be fitted on to square or octagonal apartments. Having carried up the walls of a rectilinear apartment to the required height, they transformed the square or octagon into a circle by the simple device of inserting triangular, concave projections, called 'pendentives,' at the angles. Thus a circular base was made for the dome, which was then built of bricks laid in courses ; its weight was carried by massive piers, and spaces were left near the base to serve as windows. The Neo-Byzantines regarded the window-breaks in the curve of the dome as an artistic defect, and introduced the drum ; round this cylindrical, dwarf tower they grouped the windows, and over it they reared a dome.

You will be in a better position to appreciate fuller details of all that is original in Byzantine technique when you have seen some of the buildings which mark the growth of the style. So let us now, without more ado, wander off as art-loving wayfarers in search of the most wonderful and beautiful specimens of Byzantine architecture in its main stages of evolution and development.

CHAPTER IV

BYZANTINE BUILDINGS

WE will begin our sight-seeing by making a pilgrimage to some of the most beautiful and interesting buildings that are still standing to bear witness to the architectural activity of the Transition period, between the ages of Constantine and Justinian. Whilst wandering amongst these buildings we shall unconsciously glean many memories that will serve as sign-posts to the evolution of Byzantine architecture, when, in due course, it is our happy lot to behold that wondrous example of the fully-developed Byzantine style, Sta. Sophia, at Constantinople. But let me remind you to bear in mind during this first stage of our journey that two styles were in process of evolution simultaneously, the one closely akin to Classic architecture, and the other more nearly related to Oriental architecture; and although, generally speaking, the buildings erected in Rome and the Western districts were more essentially Romanesque, while those erected in the 'Near East' had more of the Byzantine character, yet here and there we must be prepared to find the Western building spirit predominating in the East, and the Eastern building spirit asserting itself in the West.

Come with me first to Constantinople. Here we find the Yeri Batan Seray, or Basilica Cistern, a building which bears indisputable witness to Constantine's right to fame as an organizing genius who called into existence one of the greatest cities in the world. Unfortunately, we now have to rely for the most part on literary history and our own imagination when we try to realize the changes that were made in transforming Byzantium into the new capital of the Roman Empire; but the Yeri Batan Seray does much in the way of helping us to conjure up a picture

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of the important part played by civil, military, and ecclesiastical architecture in effecting this transformation. The Cistern, as we now see it, includes extensions made by Justinian ; but as built by Constantine in the early part of the fourth century, it was a work of outstanding importance not only as regards structural strength and beauty of detail, but from the point of view of size in relation to the original size of the new capital. To his credit, be it ever remembered, Constantine took the necessary steps to provide for a public water-supply ; his good example was followed by his successors, as witness the Aqueduct of Valens, together with numerous open reservoirs and covered cisterns. Of the ecclesiastical edifices erected in the capital before the age of Justinian, the only existing specimen is the monastic church of St. John Studios. This building, erected in A.D. 463, is an example of Transition work in which Classical influence is predominant : in plan it is a three-aisled basilica ; moreover, the method of construction and ornamental details are of Classical origin—the lower columns are Roman in form and decorative treatment, and they carry a richly ornamented entablature. This church was restored in the thirteenth century, but was much damaged by fire in 1782 ; the narthex is the oldest portion of the building as we now see it. The monastery, of which this church is the only remaining portion, was the headquarters of the Akoimetai, or Sleepless Monks, who carried on a ceaseless Divine service throughout day and night ; they exercised much political, as well as religious power, and took a prominent part in the Iconoclastic controversy as defenders of the religious value of pictures in Divine worship. Our interest still being centred in pre-Justinian work, our next visit is to the ancient fortifications of Constantinople ; but, knowing what we do about the stormy history of the Byzantine capital, we shall not be surprised to find that the old lines of defence include numerous restorations dating from various periods. Even though we avail ourselves of such travelling facilities as boat, train, and horses, it takes us several hours merely to get a general glance at the fortifications. They

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consist of the Harbour Walls, the Sea Walls, and the Land Walls. The Harbour was fortified by Constantine, but the remains of the old walls that we now see flanking the Golden Horn are mainly ninth-century work, as is proved by inscriptions on them. At its inland extremity this line of defence joined the Land Walls, which extended a distance of over four miles to the shores of the Sea of Marmora; throughout the greater part of their length these fortifications consisted of a deep moat and triple walls, the latter being made still more formidable by towers. This inland line of defence has the greatest interest for us, on our present expedition, because it is mainly of fifth-century construction: the fortifications here are now in a ruinous condition, and are apt to make their first appeal to us as a picturesque spectacle; but as we follow them throughout their whole length, stopping at intervals to examine the massive masonry, the outer and inner towers, and the various Public and Military Gates, we become more and more able to realize the system of defence to which they are a skeleton-key; and as in imagination we reconstruct the land-line of defence, we are able to appreciate both the individuality of its strength and the debt its builders owed to the master-builders who fortified the ancient Cretan, Mycenæan, Greek, and Roman cities. A barrier of walls extending along the shores of the Sea of Marmora completed the wide girdle of fortifications, roughly triangular in shape, around ancient Constantinople; the Sea Walls were originally built by Constantine, but as we see them now, they include numerous repairs made by successive rulers of the Byzantine Empire, and restorations that are the work of the Turks.

Still pursuing our quest of the origins of Byzantine architecture, we journey into some of the most fascinating of Eastern regions. We go first to Bethlehem, to see the Church of the Nativity, which is generally believed to be one of the first ambitious building efforts of the Early Christians. Here we find that the pagan basilican plan has been transformed into that emblematic Christian plan, a cross. Those of you who accom-

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panied me, some time ago, on a wander-tour among Romanesque buildings, will remember that we then visited the Church of the Nativity ; some other buildings that we went to see during that trip we are about to visit again, for they foreshadow the coming of Byzantine architecture as well as of Romanesque. Indeed, as I pointed out during that previous expedition, many Early Christian buildings in the East are too closely akin to Romanesque work to be disregarded in any inquiry into the origin of the Romanesque style, but, at the same time, they are the germ from which the Byzantine style was directly developed. Among the buildings that tell us about the origin of both styles is the octagonal church at Jerusalem known as the Dome of the Rock or the Mosque of Omar ; here we see the old trabeate method of construction merging into the arcuate method. Whilst at Jerusalem we must certainly take a look at the Golden Gate ; its columns have capitals that are surmounted by that Transitional adjunct, the dossier. Both the Dome of the Rock and the Golden Gate contain Transitional features, but I must warn you that there is considerable difference of opinion as to whether these buildings were erected during the Transition period or at some subsequent time up to as late as the seventh century. Throughout Syria and Asia Minor there are numerous churches, in spots that are now 'out of the world,' which are generally considered to belong to the Transition period, and which exhibit structural experiments and ornamental designs that were copied or adapted in Byzantine work.

Once more turning our faces Europewards, we make for Salonica, where we are greatly interested in one of the earliest specimens of domical churches, St. George's, dating from about A.D. 400. Here, too, we find the church of Aghia Paraskevi, a fine example of Early Transition work, that is basilican in plan ; and the Church of St. Demetrius, a still finer example of a fifth-century basilica, which has pillars with the double capitals that are indicative of Byzantine evolution.

Now let us go farther westward, into Italy. At Ravenna we

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are in the midst of a group of buildings which show us clearly, and almost at a glance, since they are such near neighbours, that the Transition builders were simultaneously creating the Romanesque and Byzantine styles. Here, too, we see many evidences of the interplay of influence between Eastern and Western building ideals, resulting from the dominant power in some city, district, or country being now Eastern, now Western : in 402 the Emperor Honorius forsook Rome to take up his abode at Ravenna ; from 493 to 539 this city was the residence of the Gothic Kings ; and from 539 to 752 it was the seat of the Viceroy of the Byzantine Emperors.

In Ravenna we begin to realize that something new has been born of the Transition style. The domical church of S. Vitale, which was begun in A.D. 526, has a marked individuality of character which calls for a special name to denote the style in which it is built. And the name that has been chosen for this style is Byzantine. Naturally, we are now anxious to get back to Constantinople, to discover what was being done in the way of building in the capital, round and about the time that S. Vitale was erected in Ravenna. On reaching Constantinople again, we make straight for the domical church of SS. Sergius and Bacchus, which was built by order of Justinian in A.D. 527, and we find that its plan closely resembles that of S. Vitale, but wider scope is made possible in future plans, since the experiment has been successfully carried through of fitting a dome on to an octagon that is enclosed in a square. And now the supreme moment of our enjoyment has come at last. We stand within Sta. Sophia with hearts too happy for brains to think. But when, after a while, emotion becomes becalmed into intellectual curiosity, and we make a critical examination of the structural and ornamental details, we can link up this and that achievement with the experimental work of the Transition builders ; nevertheless, we can but come to the conclusion that this wondrous church is a unique achievement which the whole sum total of past endeavours falls far short of explaining.

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In spite of the stormy times through which the Byzantine Empire passed after the death of Justinian, it would seem that building operations were carried on, although there is a lack of material evidence to prove that such was the case. Come with me to the next building of importance to Sta. Sophia, in order of date, that was erected in the Empire—Sta. Irene at Constantinople. The dome, which is believed to be the earliest example of its kind, and to date from about A.D. 740, is borne by a drum. The drum, as you know, is indicative of an artistic ideal, and it is not very likely that architecture was a neglected science and art for the two centuries preceding its invention. The style of the buildings erected in the Byzantine Empire onwards from about the eighth century is usually called 'Neo-Byzantine'; and, as I have already pointed out to you, its characteristics are the absence of the dossier and the use of the drum. But, generally speaking, the name is applied to the work of the Byzantine builders after the Justinian period, independently of these characteristics. We find other specimens of Neo-Byzantine buildings in Greece and Salonica, and some particularly interesting examples in Armenia; in the latter country, in particular, local influence played a very active part in creating a markedly individual building style.

Making our way into Russia, we notice that the mediæval buildings exhibit unmistakable signs of strong Byzantine influence. Such style as they have is called 'Russo-Byzantine.' In so far as it is entitled to be called Byzantine, it is an inferior adaptation. And the qualifying title of 'Russo' indicates locality rather than a national variation of Byzantine from the artistic standpoint: for such originality as is covered by that part of the compound name is fantastic rather than artistic; moreover, it embraces the adoption of forms having a Tartar origin, such as the bulb-shaped dome, and Western variations, resulting from the employment of Western architects, especially Italians, to superintend the erection of Russian churches. Russo-Byzantine is a favourite style for modern churches in Russia.

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To complete our tour of the most beautiful Byzantine buildings we must go to Venice, the home of the world-famous church of St. Mark. In this beautiful building, which was erected by the Venetians, we have the finest creation that was the result of Byzantine influence acting as the inspiring genius of Western builders. With very good, but not nearly such striking results, Byzantine influence spread as far West as France; and in our own day, centuries after the fall of Constantinople gave the death-blow to Byzantine architecture, the spirit of the Byzantine master-builders has hovered over England for a brief interval, as a result of which this country has the distinguished honour of being the home of one of the most beautiful of modern buildings—Westminster Cathedral in London. This cathedral, which was designed by the late Mr. John F. Bentley, and erected between 1895 and 1903, is a worthy tribute to the Byzantine master-builders, no less in its defects than in its rare qualities. Here we have no mere faithful copy of a Byzantine model, no attempt at an imitation that may be the sincerest form of flattery, but is always, at the same time, the contemptible compliment of someone who lacks the ability and courage to be original. Westminster Cathedral is an original interpretation of Byzantine architecture, exhibiting in material form the individual ideals of its creator; to the critical eyes of an expert, and even to the untrained but beauty-loving eyes of the amateur, it may be very obvious that there are some artistic faults in this building, but those very faults denote more clearly than do the perfections of achievement a striving towards individuality of style which is in harmony with the guiding ideal of the whole brotherhood of old Byzantine master-builders. The exterior of the cathedral, even more than the interior, is an ambitious experiment. The old Byzantine builders regarded the exterior of a building as unimportant in comparison with the interior; the desire to make exterior and interior equally beautiful, and to bring them into harmonious union both bodily and psychologically, played no very active part in Christian architecture—except in the case of St. Mark's, Venice

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—until the time of the Gothic builders. But this desire would seem to have influenced the architect of Westminster Cathedral, and unhappily it cannot be said to have been realized—unhappily, mark you, only from the necessarily exacting standpoint of artistic criticism. From that standpoint the dignity of mass is sacrificed to experiments in form, and to sharp contrasts of colour which lay too much stress on the structural feat of combining small materials. It should, however, be taken into consideration that, owing to the cramped position of the site, the spectator is always ‘too near the stage.’ That distance would lend enchantment to the general view can be proved by comparing the impressions made by the tower at close quarters and as seen from one of the remote vantage-points whence it is possible to look at the upper part of the campanile. Another outstanding feature, the porch, is a most imposing detail; it is reminiscent of the porch at St. Mark’s, Venice, and both are not wholly pleasing for similar reasons. They are so imposing, so profusely ornamented, as to be too insistent in their demand for attention to spectacular effect; hence they do not create that atmosphere of restfulness which should permeate the portals of a church. But the fact that Westminster Cathedral provokes serious criticism from the artistic standpoint, in an age when the jerry-builder flourishes, must surely be a source of joy to all who have the best interests of architecture at heart, and a sound reason for revering the memory of an architect with progressive ideals. Moreover, internally the building is an artistic triumph, capable of winning reverential admiration from the most expert of critics.

As our time together is limited, I have only been able to show you some of the most notable of Byzantine buildings; but I hope that some day you will go a-wandering by yourselves in search of other examples, and experience the delight of discovering for yourselves some of the many Byzantine monuments that are hidden away in deserted spots. You know the principal countries wherein to seek, and when you have exhausted these happy

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hunting-grounds you should go to Sicily and Spain, where there are still many little relics of Byzantine architecture to be found by those who are sufficiently interested to seek diligently.

CHAPTER V

BYZANTINE MEANS TO BEAUTIFUL ENDS

LEST, perchance, there be some amongst you who have fallen into the habit of thinking that decoration is the principal medium for the creation of beauty, let me beg of you to reject at once this popular fallacy. There are many mediums through which architecture can wield the charm of beauty unadorned. Given the artistic instinct, the builder can summon to his aid the subtle power of proportion, the fascination of line, the stirring appeal of parts harmoniously blended into an organic whole, the enchantment of masses so broken up as to defy monotony without any suggestion of unrest, the poetic stimulus of perspective, and the spell of light and shadow play. And the builder who is worthy of his name uses these decorative means to the very best of his ability before he attempts to adorn his work ; then, when he finally resorts to ornamental accessories, he demands of every detail that it shall be appropriate to the general design. This is a high standard of architectural art. Nowadays, when we see many modern buildings conspiring together to make us feel that architecture is not one of the arts but a poor sort of craft, it might even be called an exacting standard that I have set up. But as the Byzantine builders can well afford to stand their trial on such terms, we need not hesitate to put their instinct for beauty to the severest test.

But many of the secrets of beauty are so essentially the secrets of creative genius that no extraneous force of intellect or power of imagination can wrest them from the work in which they constitute so rich a source of pleasure ; hence there are

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many beautiful things in Byzantine buildings which defy our efforts to explain how they hold us spellbound. On the other hand, it is possible to discover some of the methods by which certain beautiful results are obtained, and seeing that we are creatures of intellect as well as of emotion, such knowledge undoubtedly increases our power of appreciation. So let us see how far we can probe the chief Byzantine means to beautiful ends.

First let us glance at Byzantine plans. Here we have much evidence of originality. We see the basilican plan growing into the form of that most sacred Christian symbol, the cross. We find the circular plan winning favour by its very simplicity of form, and the comparative ease with which it can be made to carry securely and in dignified manner a dome. There follows that progress in planning which proclaims the Byzantines great artists in that they would not tolerate limitations. Pleasing though it be to the eye, a circular space is an extravagant medium of accommodation, and circular parts are not only difficult to combine structurally, but ambitious experiments in the way of uniting them are apt to give to a building a body that is confused in appearance. The Byzantines proved that the artistic instinct is not necessarily unpractical; they were willing to renounce the mathematically circular space, fundamentally beautiful though it be, but not the dome. So they learnt to fit the dome to a rectangular apartment, thereby giving wider scope to planning, and internally they produced circular effects to harmonize with the dome by the disposition of columns. And, externally, domes are a decorative feature of Byzantine buildings; as a rule, their form is not disguised by an outer covering, and often there is a very pleasing grouping of small domes round a large central one.

The Byzantine builders undoubtedly had a keen appreciation of the very subtle means of endowing a building with beauty, such as proportion, perspective, line, and mass. It is impossible to analyze the joy-inspiring effects obtained by the Byzantine or

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any other master-builders through the medium of proportion. Other mediums are almost equally of a spiritual nature, but some are not quite so elusive as others. For instance, on the treatment of mass both in its relation to lighting arrangements and to such openings as arches, and as regards its own dimensions, depends the shadow-show ; the generous, broad shadows which decorate Byzantine buildings testify to the artistic spirit in which the Byzantines dealt with mass. The arcades, made by the union of columns and arches, also serve as a playground for light and shadow. There are, too, certain obvious facts about the Byzantine treatment of line. The outstanding lines of Byzantine buildings are vertical, and they combine with the domes to attract the eye upwards. This appreciation of the artistic value of vertical lines shows a strong bias towards the ideal of loftiness, which came to be a powerful influence among the Gothic builders. In contrast to the Byzantine treatment of line, the outstanding lines of Romanesque buildings are horizontal. Intimately connected with line is form, and the forms of various details, such as domes and round arches, show us how keenly conscious were the Byzantine builders of the beauty of curves ; nevertheless, they realized that a general presentation of curved lines may be made more effective by the introduction of horizontal lines, as witness bands of applied ornamentation.

You will remember I warned you against starting out to find the sources of beauty in buildings with the one idea that ornamentation is the fountain-head thereof. At the risk of making you feel, a few minutes after hearing that warning, that I was contradicting myself, I specially took this course in dealing with the artistic side of Byzantine architecture, because this is a style of building in which adornment plays a very important decorative part. Indeed, Byzantine buildings were designed under the dominating idea of providing surfaces that would lend themselves to ornamentation by a particular method. Even so, I believe you will now realize that I was justified in first calling your attention to the sources of beauty unadorned in Byzantine archi-

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ture ; in this style, in particular, they are so frequently overlooked alike by critics and amateurs, because of the exceptional beauty of the ornamentation. And before I tell you about the ways in which the Byzantines adorned their buildings, I want you to understand that they did not call on ornamentation to play the hideous trick of covering up bad design and workmanship. Always remember, when you are looking at the decorative garb of a Byzantine building that the shell beneath is of careful design, and thoroughly sound in all its constructive details.

Internally, a typical Byzantine building presents a wonderful exhibition of precious marbles and of mosaics. The floor is inlaid with marble mosaics ; in their lower part the walls are covered with coloured marbles ; and vault, dome, and walls to the upper margin of the marbles are devoted to a display of pictures wrought in luminous glass mosaics. These pictures, which represent saints, scenes from sacred stories, and such emblematic creatures as the peacock, are set in a rich framework of golden mosaic-work. With such power does the great magician, colour, wield his wand in a Byzantine building, that it is some time before our attention is attracted to the sculptural ornamentation. Nevertheless, when it is at last claimed by such ornamental details as the capitals of columns, we find in them a rich fund of enjoyment ; there is great variety in the designs, and fascinating effects are obtained not only by the forms of birds, foliage, and fancy patterns, and by the grouping thereof into a composition, but by the method of incutting, which gives rise to a fine play of shadow beneath a flat surface.

We are at our journey's end, and at this moment of parting I find myself eager to snatch your thoughts and feelings away from the Past and root them in the all-important Now. Architecture is the greatest of all historians. Just as it has handed down to us the life's story of the Byzantine Empire and of other mighty Powers, just as it has brought us into touch with the spirit of still active nations whilst recording their history up to date, so will it reveal to future generations the history of to-day.

ILLUSTRATIONS

BASILICA CISTERN

CONSTANTINOPLE

HISTORICAL NOTE.—The Yeri Batan Seray, or Basilica Cistern, was built by Constantine the Great in the early part of the fourth century, and enlarged by Justinian, A.D. 527-565.

ARCHITECTURAL NOTE.—This great cistern is 336 feet long and 182 feet wide. It has over 300 columns, each 39 feet in height. Weiridly beautiful are the vistas they reveal.

GENERAL NOTE.—Not only the size, strength, and magnificence of his new capital proclaim Constantine a great city-builder. To his credit, be it ever remembered, he took the necessary steps to provide for a public water-supply. His good example was followed by his successors, and huge reservoirs became a feature of Constantinople.



Sébah & Foaillier.

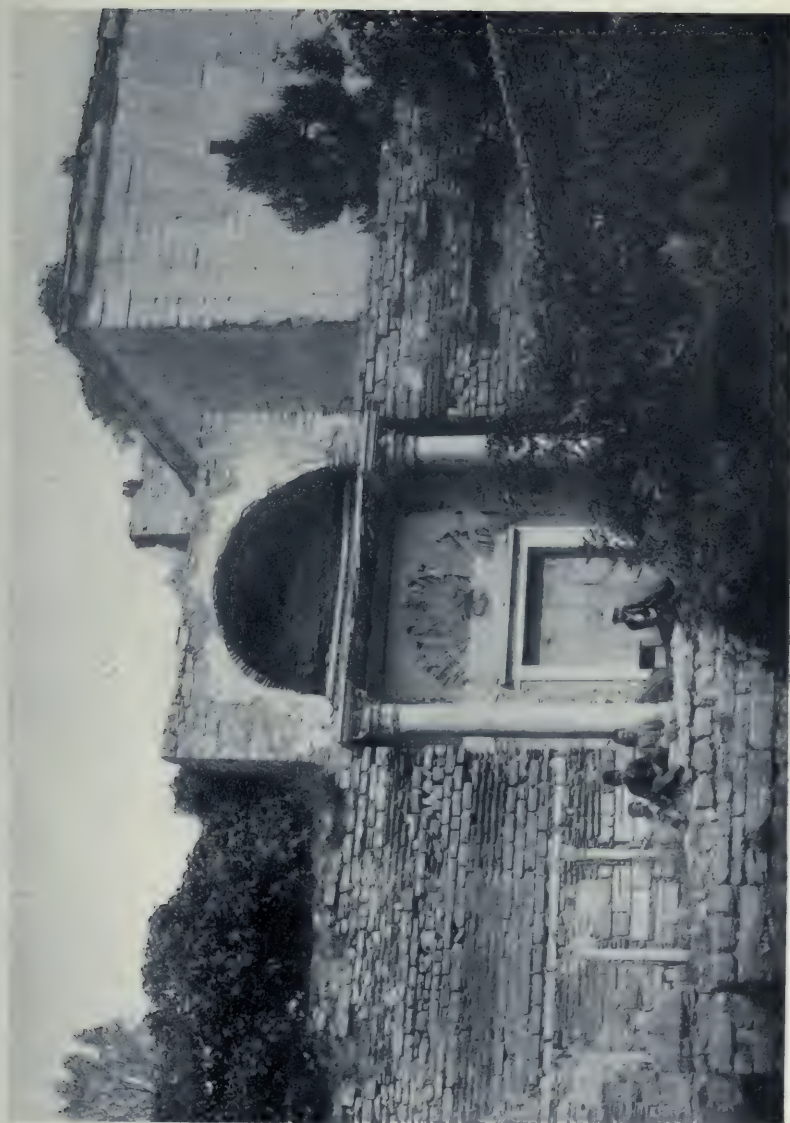
THE GOLDEN GATE

CONSTANTINOPLE

HISTORICAL NOTE.—The Golden Gate is a triumphal arch. It was erected about A.D. 388-391, to welcome the Eastern Roman Emperor, Theodosius the Great, on his return from a successful expedition against Maximus, Governor of Britain, who had been marching on Italy with a view to supplanting Valentinian II. in the Western Empire. Valentinian had sought the assistance of Theodosius, who defeated Maximus in two decisive battles. Maximus sought refuge in Aquileia, on the Italian frontier, but was arrested and executed. The conquering Theodosius allowed Valentinian to remain Emperor of the West, but shortly after Valentinian was murdered by another usurper. Theodosius now marched West once more, was once more a conqueror, and this time he reunited the Eastern and Western Roman Empires, taking upon himself supreme control of the government.

ARCHITECTURAL NOTE.—This triumphal arch consists of outer and inner gateways, enclosed by walls. It is built of marble, and is flanked by marble towers.

GENERAL NOTE.—The Golden Gate was only used for the State entry of an Emperor. The Turks have now blocked it up, for precautionary reasons; there is a tradition among them that through this Gate a Christian conqueror of Turkey will some day enter Constantinople.

*St. John & Pauline.*

THE WALLS

CONSTANTINOPLE

HISTORICAL NOTE.—Constantine fortified the outer, or land boundary of his new capital, Constantinople, with strong walls. But the city grew so rapidly that, early in the fifth century, it was considered necessary to erect another and still stronger line of fortifications about a mile farther inland. The Prefect Anthemius was mainly instrumental in arranging for such new fortifications on the extended boundary of the city, and work was begun in A.D. 413; all the citizens had to take part in the building of this line of walls. The new walls were ruined by an earthquake in A.D. 447, at the critical time when barbarian hordes, under Attila, were close on the city. Constantinople was equal to the emergency, and within two months the walls were restored, and were being strengthened by a second wall in front of them.

ARCHITECTURAL NOTE.—The Land Walls, as completed in the fifth century, extended a distance of over four miles, from the Sea of Marmora to the Golden Horn. For the greater part of the way these fortifications were triple, consisting of a deep moat, 60 feet wide, with a low stone wall along the inner margin; a terrace, 40 feet wide, backed by an outer wall, 25 to 30 feet high, 7 feet thick, and strengthened with towers: an inner terrace, 60 feet wide, with an inner wall on the city side 40 to 50 feet high, 15 feet thick, and strengthened with nearly a hundred towers about 60 feet high. Across the moat were bridges with public gates, and there were military gates leading to the terraces. These land fortifications terminated on the Golden Horn side in a strong and massive single wall. The shore line of the city was defended by less formidable walls, strengthened by numerous towers.

GENERAL NOTE.—The illustration shows the fortifications of Constantinople near the Golden Gate, but the wall on the margin of the moat has now disappeared.



Sebah & Foellmer,

CHURCH OF THE NATIVITY

BETHLEHEM

HISTORICAL NOTE.—The Church of the Nativity is generally believed to be one of the first ambitious building efforts of the early Christians. There is, however, considerable difference of opinion as to whether the building as we now see it was erected during the time of Constantine, that of Justinian, or the intermediate years between these periods.

ARCHITECTURAL NOTE.—The plan is a distinct cross—five aisles and a well-defined transept. Practically speaking, the present nave is the original work of the early Christians; and it is not a patchwork, including, as did so many of their buildings, ready-made details taken from the pagan creations of the classic builders. All the pillars and capitals were expressly made for the place they occupy.

GENERAL NOTE.—Under the crossing of aisles and transept is the famous Cave of the Nativity.

*Pontils.*

THE DOME OF THE ROCK (MOSQUE OF OMAR) : EXTERIOR

JERUSALEM

HISTORICAL NOTE.—The Dome of the Rock is said by some authorities to be the original church which Constantine built over what he believed to be the Holy Rock, containing the cave which served as the Holy Sepulchre of Christ. But it is now more generally held that the building, as we see it, dates from the seventh century and later.

ARCHITECTURAL NOTE.—The plan is octagonal. 'It is a nearly unaltered Christian building of the fourth century. As such its interest to the Christian, in marking what to him is one of the most sacred spots in the whole world, is, or ought to be, immense. It is equally important to the archæologist as being the earliest important church of its class erected wholly for Christian purposes ; while it is even of more value to the architect from being one of the most beautiful buildings in the whole world.

'To the archæologist its principal interest lies in the number of Transitional features it presents. The old trabeate style of the Romans was yielding unwillingly to the arcuate style that was so soon to supersede it. The former is still retained as an ornament ; the latter was fast becoming the essential constructive expedient' (Ferguson). But other authorities are equally emphatic in pronouncing this a seventh-century building, with some details of still more modern date—twelfth-century dome, twelfth-century mosaics, and eighteenth century ceiling. Ferguson goes so far as to consider that the original mosaics have been much altered. The south portal is generally considered to be the only entrance which retains its original form.

GENERAL NOTE.—The Mahometans call this building the Kubbet es Sakhra—'Dome of the Rock'; the name, Mosque of Omar, was given to it by Western Christians.

See two following illustrations

*Bonfils.*

THE DOME OF THE ROCK (MOSQUE OF OMAR) : INTERIOR

JERUSALEM

This view in the aisle of the Dome of the Rock shows an interesting stage in the transition from the classical trabeate style (columns carrying a beam-like superstructure called the *entablature*) to the arcuate style. The dossierets, or blocks surmounting the capitals, represent the architrave, which is to say the lower part of an entablature ; they carry a horizontal superstructure, which is essentially the completion of the entablature, and from which spring the arches. From the experimental standpoint, the Romans had already gone further with the arcuate style, as witness the Palace of Diocletian at Spalato, in Dalmatia, erected A.D. 300 ; here there are arches resting directly on capitals. But in the Byzantine development of a perfected arcuate style, first came the dossieret with an entablature intervening between it and the arches ; then the dossieret with arches springing directly from it ; and finally, not as an experiment but as a perfected, constructional development, arches springing directly from columns.

See Glossary ; see notes and illustrations, St. Demetrius at Salonica, pp. 64, 65 ; see notes and illustrations, S. Vitale, Ravenna, pp. 78, 79 ; also notes and illustrations on pp. 48, 49, 52, 53.

*Bonfils.*

THE DOME OF THE ROCK (MOSQUE OF OMAR) :
INTERIOR, SHOWING ROCK

JERUSALEM

The pillars are of precious marbles. Their shafts were brought hither from classic buildings. But the capitals may have been carved specially for the Christian church : on some of them there is a cross. The upper level of the Rock is about $6\frac{1}{2}$ feet above the floor of the mosque. On this Sacred Rock there stood, probably, the Altar of Burnt Offerings in the Jewish Temple, and here, too, a Christian altar was placed by the Crusaders. There is a doorway leading down to the cave beneath the Holy Rock.

See notes and illustration on pp. 48-51.

*Boyfils.*

GOLDEN OR BEAUTIFUL GATE: EXTERIOR

JERUSALEM

See notes and illustration on pp. 56, 57.

*Bonfils.*

GOLDEN OR BEAUTIFUL GATE : INTERIOR

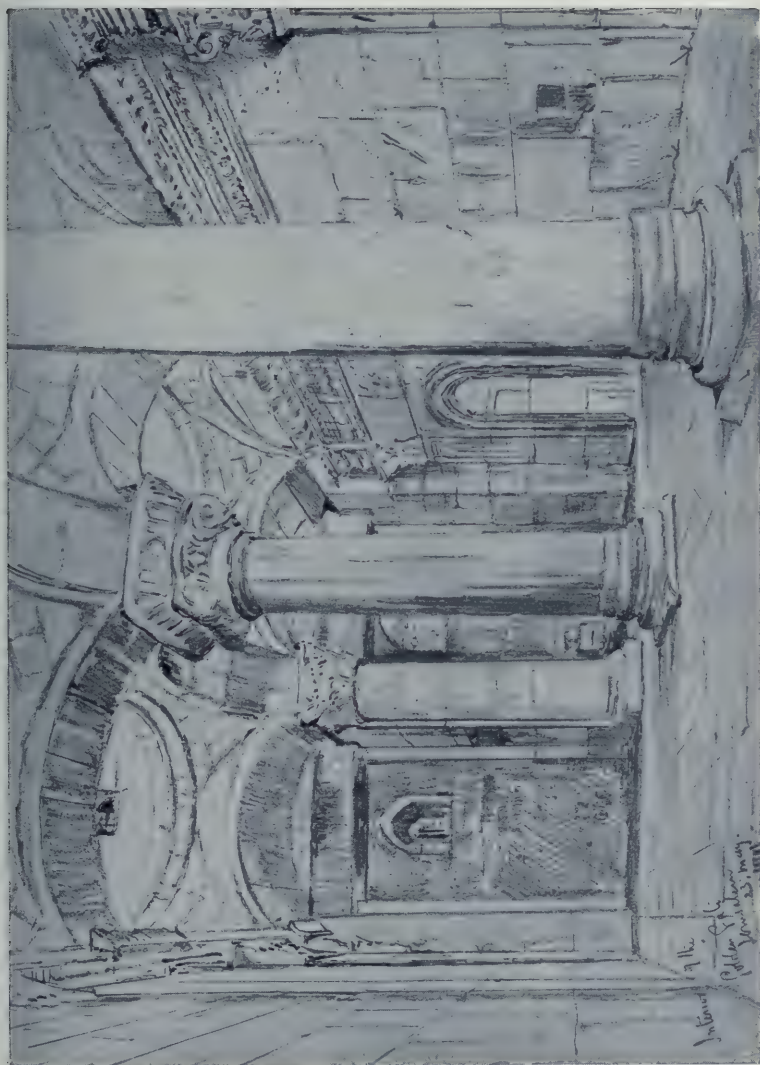
JERUSALEM

HISTORICAL NOTE.—There is considerable difference of opinion as to whether the Golden Gate at Jerusalem dates from the fifth, sixth, or seventh century.

ARCHITECTURAL NOTE.—The entrances have been walled up, but the interior is still accessible from the Temple area ; it consists of a double-domed apartment, about 60 feet long and 36 feet wide. The capitals of the columns are surmounted by dossierets, a characteristic feature of the Early Christian Byzantine style. Ferguson points out that, both externally and internally, this Gate ‘preserves all the elements of transition between a horizontal trabeate style, like the classical Roman, and an arcuate style.’

GENERAL NOTE.—It is thought that this gateway was erected for festal purposes in connection with Christianity.

See previous illustration.



John Fullerton, R.I.

AQUEDUCT AT EPHEBUS

ASIA MINOR

HISTORICAL NOTE.—It is believed that this aqueduct was erected during the time of Justinian, about A.D. 530.

ARCHITECTURAL NOTE.—The pillars of the aqueduct are composed of blocks taken from more ancient buildings ; the arches are of brick.

GENERAL NOTE.—Ephesus was a famous centre of art and learning in the Greek world. In the days of the Romans it became the great junction for trade between the East and West, but it began to lose its importance when Constantinople became the capital of the Eastern Empire. As the head of the churches in Asia, it is intimately associated with the history of Early Christianity ; several councils met within the city walls to discuss points of ritual and to settle disputes as to what constituted the true Faith. Justinian erected a magnificent cathedral on the hill, to replace an older church which had become too small to accommodate the Ephesian Christians. The cathedral, dedicated, as was the church, to St. John, became a great resort for pilgrims in the Middle Ages. Among the existing ruins of this building are masses of brickwork, and it is still possible to identify portions of vaulting, and capitals ornamented with Byzantine crosses.



Séban & Joallier.

ST. GEORGE

SALONICA

HISTORICAL NOTE.—This church dates from about A.D. 400.

ARCHITECTURAL NOTE.—St. George's, Salonica, is a particularly fine example of a Tholus, or circular building, and is one of the earliest specimens of domical churches in the East. It is 79 feet in diameter, and has a surrounding wall about 20 feet thick, in which are seven large niches forming chapels.

GENERAL NOTE.—The dome is ornamented with mosaics, which are some of the earliest of Christian mosaics in existence. They represent warrior-martyrs and other saints praying before the front of large buildings.

*P. Zepdja.*

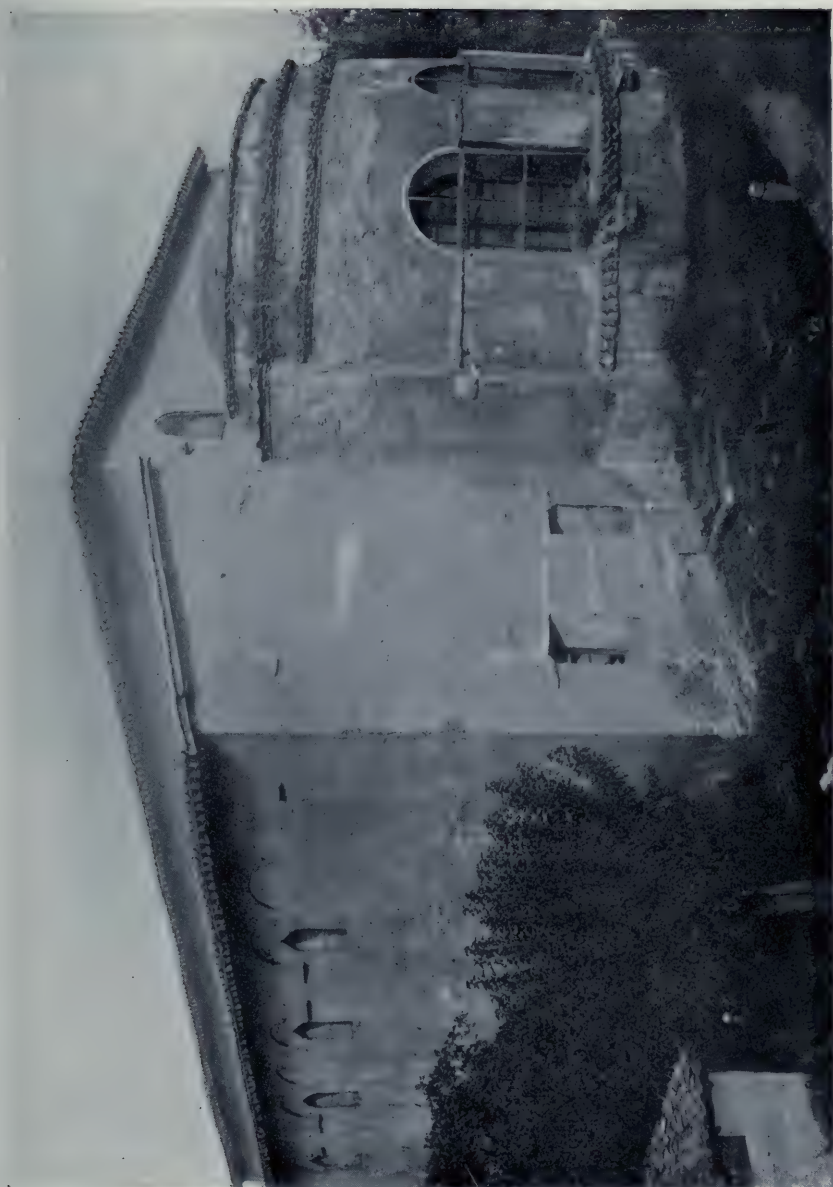
AGHIA PARASKEVI

SALONICA

HISTORICAL NOTE.—This church is an example of Early Transition work, prior to the time of Justinian. It belongs, very possibly, to the fifth century.

ARCHITECTURAL NOTE.—The plan is basilican, with double narthex, nave, aisles, and bema. The proportions are similar to those of the Bethlehem church.

GENERAL NOTE.—The Aghia Paraskevi is known also as the Eski Juma or Old Mosque.

*P. Zepedji.*

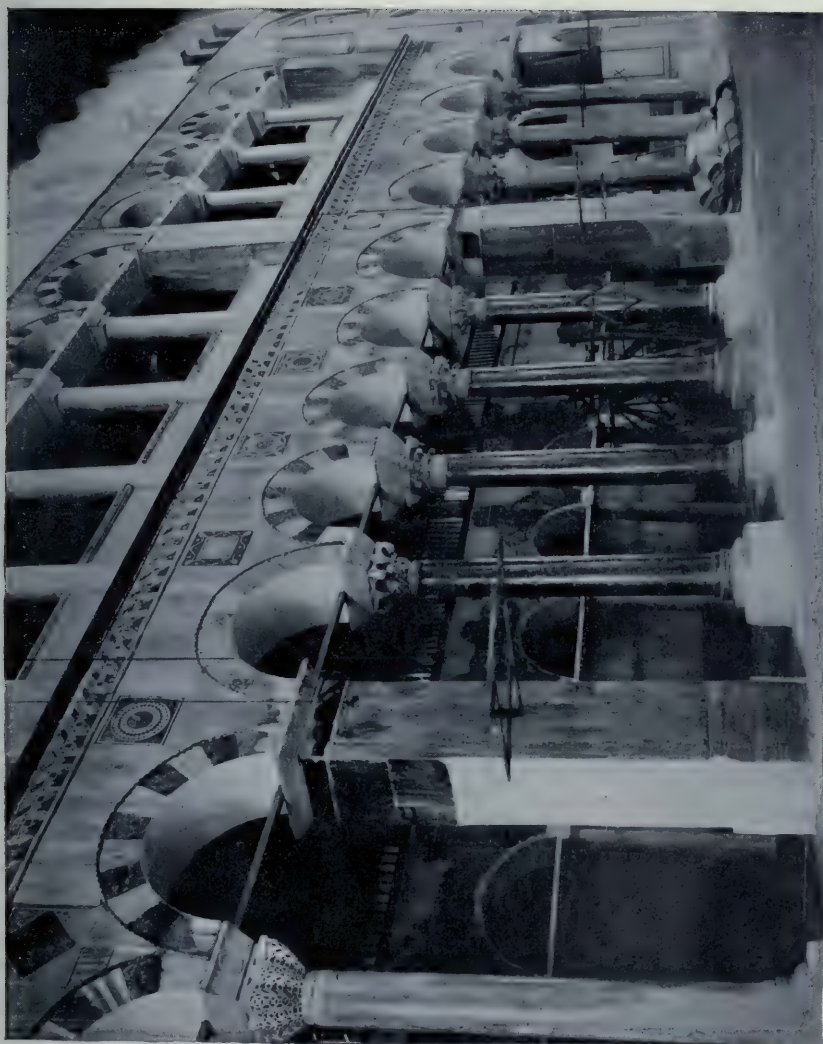
ST. DEMETRIUS: INTERIOR

SALONICA

HISTORICAL NOTE.—This church dates from about A.D. 500.

ARCHITECTURAL NOTE.—St. Demetrius is the finest of the Byzantine basilicas in Salonica. It has five aisles, two internal transepts, and spacious galleries over the side aisles. The pillars have double capitals; surmounting the capital proper is a block, such blocks being constructional features to support the springing of the arches (*see Glossary; notes and illustration, Mosque of Omar, pp. 50, 51; notes and illustration, S. Vitale, Ravenna, pp. 78, 79*). These double capitals were very popular during the Constantine to Justinian period, after which they were seldom used.

GENERAL NOTE.—Fine marbles are a most effective feature of the decorative scheme.



P. Zepin.

TOMB OF GALLA PLACIDIA : EXTERIOR

RAVENNA

HISTORICAL NOTE.—This mausoleum dates from about A.D. 420.

ARCHITECTURAL NOTE.—The plan, considering the date of the building, is exceptional and of special interest : it is cruciform, instead of the usual circular form. And the cruciform body is roofed over the centre with a dome, although externally the appearance does not suggest domical construction, because the roof proper is enclosed by a square tower. In this dome we make an early acquaintance with pendentives, and it is one of the few examples in which they combine with the actual roofing to form portions of one hemisphere.

GENERAL NOTE.—The interior is most picturesquely and profusely decorated with mosaics on a dark blue ground. The cupola is composed of earthenware pots, fitted into each other and embedded in concrete.

See notes and illustration on pp. 68-71.

*E. Alinari*

TOMB OF GALLA PLACIDIA : INTERIOR

RAVENNA

See notes and illustrations on pp. 66, 67, 70, 71.

*E. Alinari.*

TOMB OF GALLA PLACIDIA: SARCOPHAGUS

RAVENNA

The accompanying illustration shows a sarcophagus within the Mausoleum of Galla Placidia. It affords a good example of the decorative art of the Early Christians.

For illustration of the tomb and notes on the building see pp. 66-69.



S. VITALE : EXTERIOR

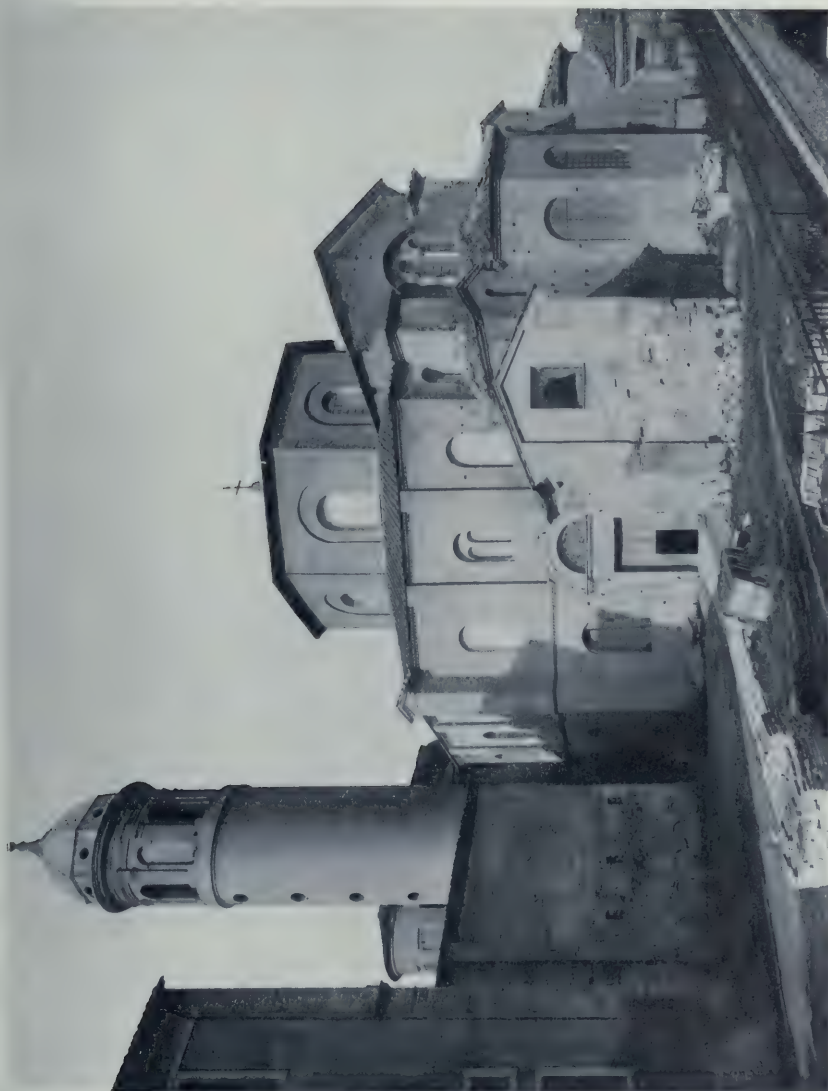
RAVENNA

HISTORICAL NOTE.—The domical church of S. Vitale was erected between A.D. 526-547.

ARCHITECTURAL NOTE.—The plan is octagonal ; an inner octagon of 50 feet in diameter is surrounded by an outer one of 110 feet in diameter. From the inner octagon a square bay in the east leads to a choir, which cuts through the aisle and terminates internally in a semicircle, whilst externally it has three sides. The Temple of Minerva Medica at Rome, built in A.D. 263-268, served as the model for this church.

GENERAL NOTE.—The Emperor Charlemagne took S. Vitale as the model for his royal tomb-house, which he erected at Aix-la-Chapelle in the eighth century. This tomb-house, which was afterwards enlarged, constitutes part of the cathedral at Aix-la-Chapelle.

See notes and illustrations on pp. 74-79 ; also pp. 82, 83.

*E. Altieri.*

S. VITALE: INTERIOR

RAVENNA

A central space is surrounded by eight massive pillars ; between these pillars are semicircular niches, in two stories, with pairs of columns and triple arches, the upper story forming a gallery. The interior of S. Vitale has been barbarously treated by the modern restorer.

See notes and illustrations on pp. 72, 73, 76-79.

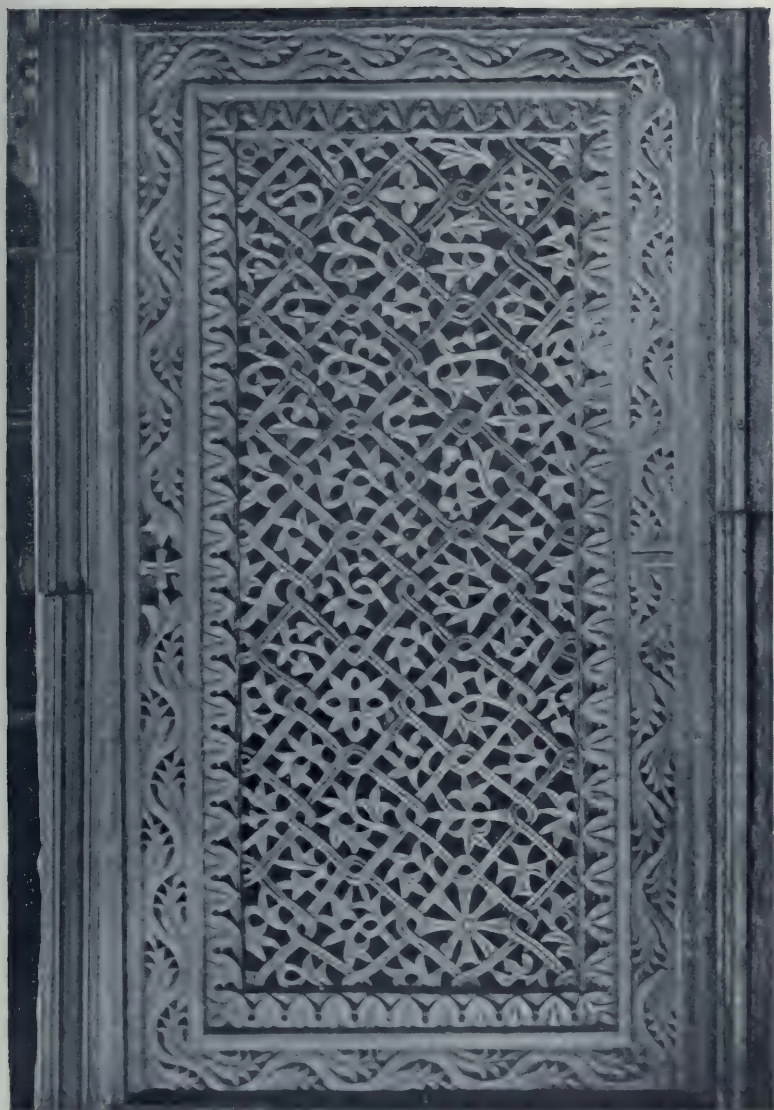
*E. Altinari.*

S. VITALE : ORNAMENTATION

RAVENNA

The accompanying illustration from the interior of S. Vitale shows Byzantine decorative treatment of a flat surface in the structural details.

See notes and illustrations on pp. 72-75, 78, 79.



S. VITALE : IMPOST CAPITAL

RAVENNA

This is a fine example of an impost capital. The capital proper is a cubical block, whose side is greater than the diameter of the shaft of the column on which it rests, and the lower part of that block has been cut away, and so rounded at the corners that the large square merges into the circle of the shaft. The upper block is called a *dossieret*; its derivation is the architrave of classical architecture, and it is here used essentially as a constructive feature, its purpose being to carry the springing of an arch that is larger in area than the shaft. The dossieret is a Transitional feature that was used during the early stages of Byzantine development.

See Glossary; notes and illustration, St. Demetrius at Salonica, pp. 64, 65 notes and illustration, Dome of the Rock, pp. 50, 51; also notes and illustrations on pp. 72-77.

*E. Alinari*

TOMB OF THEODORIC

RAVENNA

HISTORICAL NOTE.—The Tomb of Theodoric dates from about A.D. 530.

ARCHITECTURAL NOTE.—Plan : There are two stories ; the lower one is decagonal, and contains a cruciform crypt. The flat dome, about 35 feet in diameter, was hollowed out of a single block of stone ; the stone handles were put round the exterior for the purpose of helping in the hard task of placing this enormously heavy lid in position.

GENERAL NOTE.—Some authorities consider that there is Syrian influence in the style of this mausoleum. One of them reminds us that several of the early Bishops of Ravenna were Syrians, and uses this historical fact, together with artistic evidence, to support his belief that Syrian influence played a very active part in the work of the Early Christian builders in Ravenna.



E. Alinari.

SS. SERGIUS AND BACCHUS

CONSTANTINOPLE

HISTORICAL NOTE.—This church was built by order of Justinian in A.D. 527, and dedicated to the martyrs Sergius and Bacchus.

ARCHITECTURAL NOTE.—The interior of this domical church is octagonal, and in form, arrangement of piers, pillars and galleries, closely resembles S. Vitale, Ravenna. But the plans differ essentially in one particular : SS. Sergius and Bacchus is enclosed in a rectangle, S. Vitale in an octagon. It is a small church, but finely proportioned.

GENERAL NOTE.—SS. Sergius and Bacchus is now the Mosque of Kutchuk Aya Sophia, which is to say, Little Sta. Sophia.

See notes and illustrations, S. Vitale, Ravenna, pp. 72-75.

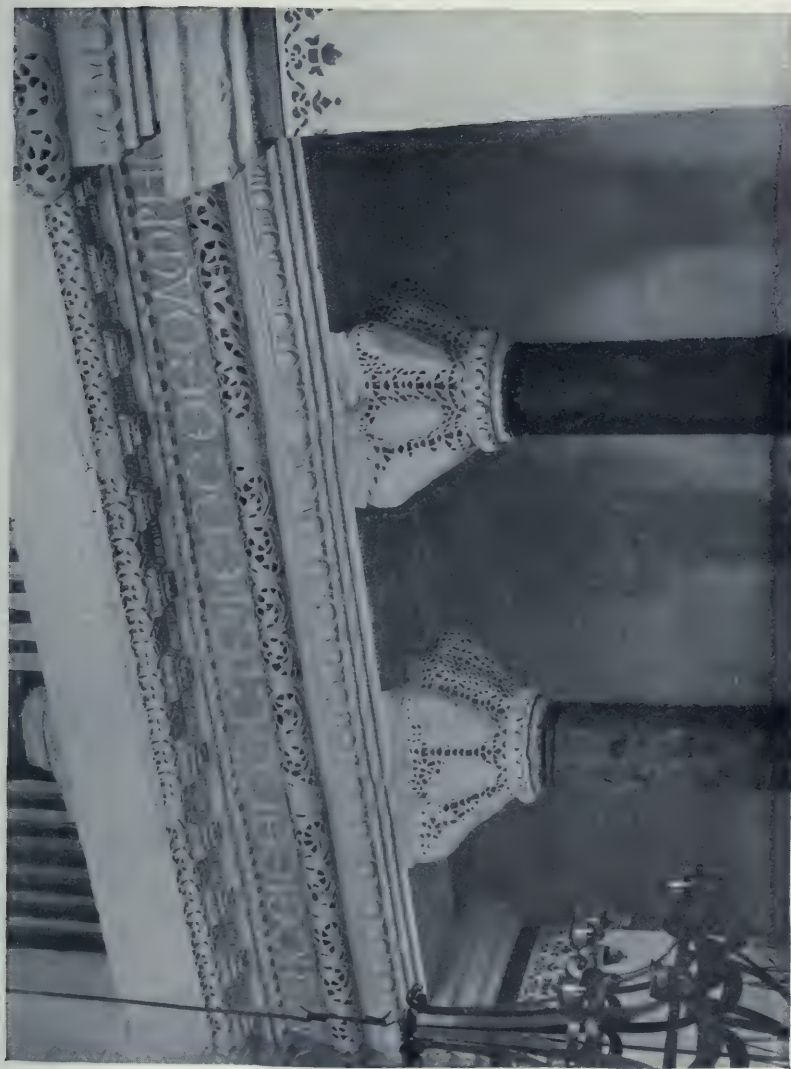


Shah Qasr.

SS. SERGIUS AND BACCHUS: CAPITALS, ETC.

CONSTANTINOPLE

See notes and illustration on pp. 82, 83.



Schubert & Fournier.

STA. SOPHIA: EXTERIOR

CONSTANTINOPLE

HISTORICAL NOTE.—Sta. Sophia, the triumph of Byzantine architecture, was erected by command of Justinian, A.D. 532-537. It stands on the site of a wooden-roofed basilica of the same name, founded by Constantine.

ARCHITECTURAL NOTE.—In size, method of construction, and general magnificence, Sta. Sophia is the supreme creation of the Byzantine artist-craftsmen, indisputably establishing their right to be numbered among the world's master-builders. In plan it is nearly square, the measurements being 250 feet by 237 feet, exclusive of narthex and apse. The church is approached through an outer narthex; this has five doors leading to an inner narthex, a vast hall of two stories, 205 feet long and 30 feet wide. From this apartment nine doors give access to the main building. The great central door, or Royal Gate, leads into an oval-shaped nave. The central part of this nave is a square, 107 feet side, bounded by massive piers carrying semicircular arches and crowned with a great dome; the semicircular ends of the nave are covered with semi-domes, in connection with each of which are three smaller vaults. On either side of the nave is an aisle in two stories. The principal building material is brick, but the massive piers supporting the dome are of stone. The original great dome was wrecked by earthquake in A.D. 558.

GENERAL NOTE.—This church was not dedicated to a saint, but to the Wisdom of God—in Greek, Sophia. The building was converted into a Mahometan Mosque in 1453, and the Turks are responsible for the minarets and for the various adjuncts seen in the foreground of the accompanying illustration.

See the three following illustrations.



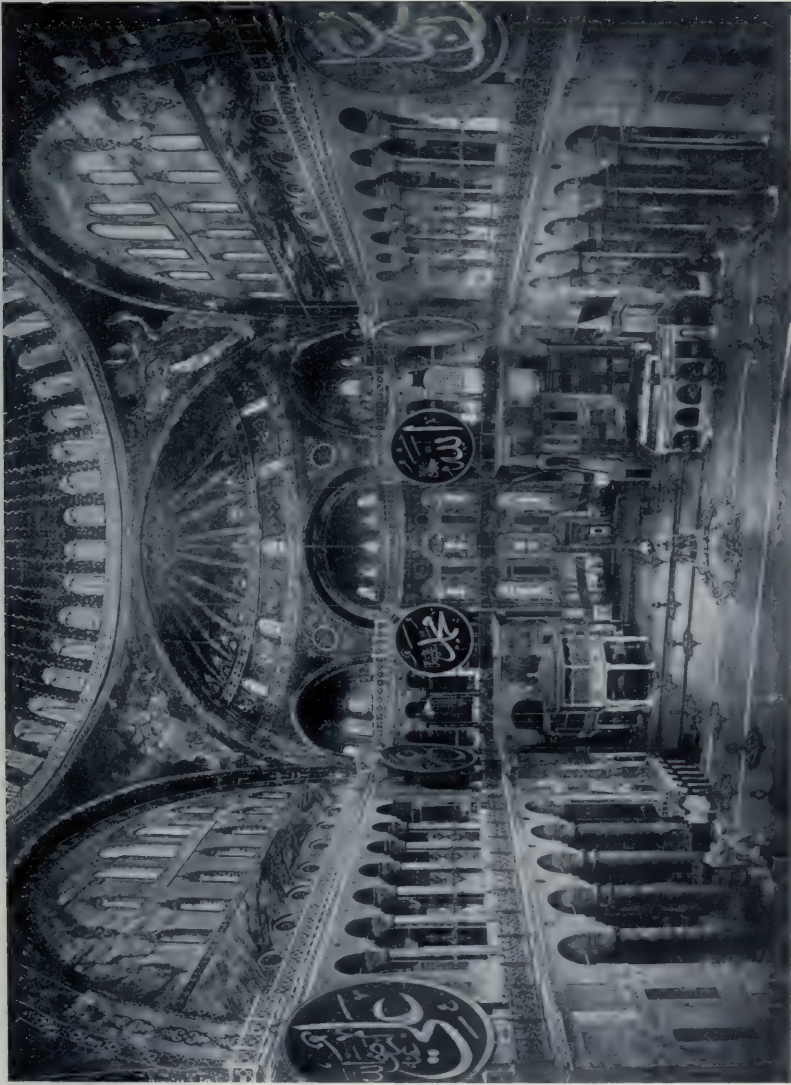
Süleymaniye Camii.

STA. SOPHIA : INTERIOR

CONSTANTINOPLE

It is the interior of Sta. Sophia which reveals the rare genius of its creators as decorative artists, and shows Justinian to have been not only a very wealthy Emperor, but a man with exquisite taste. The pillars are of precious marbles, porphyry, and verd-antique. The walls and piers are faced with beautiful marble of various colours, disposed in patterns. The domes, vaults and arches are ornamented with glass mosaics of Christ, the six-winged seraphim, saints, apostles, and angels, pieced together in colours on a groundwork of gold. The capitals are among the most perfect examples of how new building races have artistically adapted classical forms to serve a new constructional purpose. The classical Corinthian capital was essentially concave in form, with applied ornamentation; its innate strength was equal to the work it had to do in supporting a beam, and in this capacity there was nothing weakly about its appearance. But, organically and artistically, such a capital was weak when, in course of time, it was required to support an arch. Thus was inspired the idea of making the curve of a capital convex, and incising the ornamentation. In the capitals of Sta. Sophia, the transition to strength has been perfectly accomplished. The Turks have concealed much of the original decoration in the interior of the building with plaster-covered matting, and have appropriated space for Mahometan inscriptions, and for such details as tribunes, pulpits, and platforms. But many Christian emblems are still to be found among the mosaics, and, generally speaking, the architecture of the interior is an unspoiled masterpiece of Byzantine creation.

See notes and illustrations on pp. 86, 87, 90-93.



Sabah & Gostiller.

STA. SOPHIA : GALLERY

CONSTANTINOPLE

In the galleries constituting the upper story of the aisles and narthex, space was set apart for women. A portion of the south gallery was reserved for the Empress and the ladies of the Court.

See notes and illustrations on pp. 86-89, 92, 93.



Sebah & Joazeir.

STA. SOPHIA : CAPITALS, ETC.

CONSTANTINOPLE

See notes and illustrations on pp. 86-91.



Sabah & Joallier.

STA. IRENE

CONSTANTINOPLE

HISTORICAL NOTE.—This church was founded by Constantine ; burnt during a riot A.D. 532 ; rebuilt by Justinian on the original plan, but on a larger scale ; damaged by earthquake in the eighth century, and restored soon after. There is a difference of opinion as to whether the building as we now find it dates from about A.D. 740 or is largely the remains of the sixth-century work carried out during the time of Justinian.

ARCHITECTURAL NOTE.—The plan is basilican, which suggests the early period of the Byzantine style as the date of erection ; nevertheless, the eighth-century restorers may have copied Justinian's plan, which in its turn was copied from that of Constantine's church. The dome is believed to be the earliest example of its kind ; an additional feature, called the 'drum,' affords window accommodation, enabling the dome proper, which surmounts it, to preserve the beauty of an unbroken curve.

GENERAL NOTE.—This church has not been used as a mosque. It is now a Turkish armoury.



Sohn & Frazier.

PALACE OF THE PORPHYROGENITUS, AT BLACHERNÆ : EXTERIOR

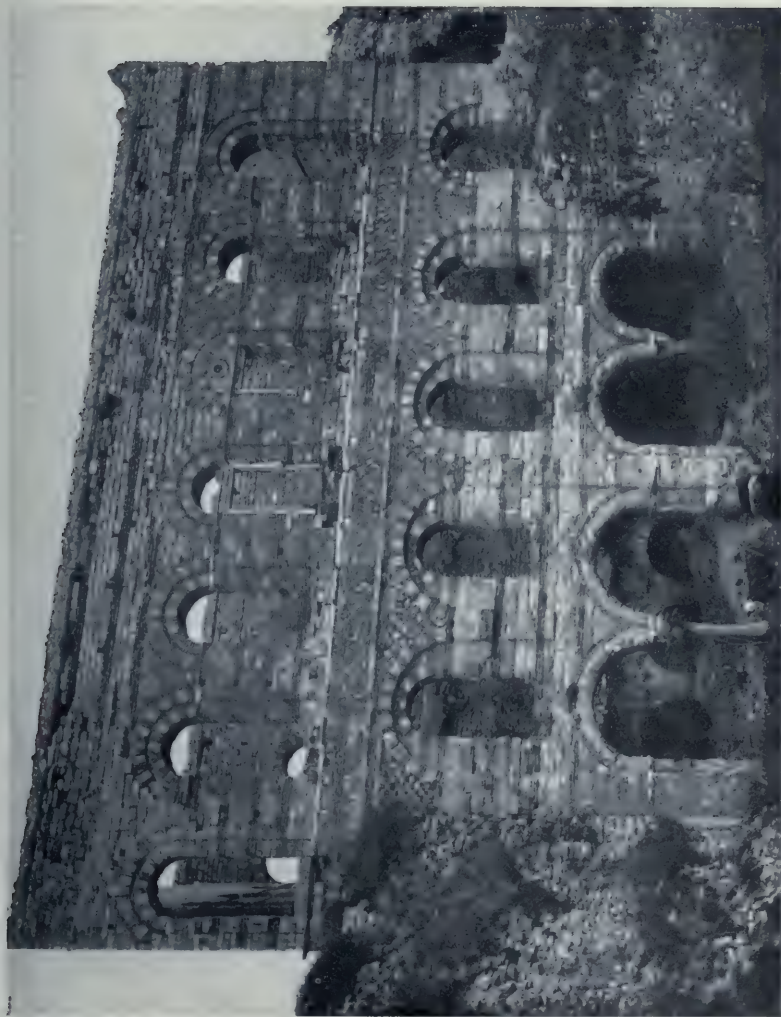
CONSTANTINOPLE

HISTORICAL NOTE.—The remains of this palace are probably ninth-century work.

ARCHITECTURAL NOTE.—Enough is left of this building to give us a very good idea of its original size and splendour. At one end of a courtyard still stands a structure, 80 feet by 40 feet, consisting of two spacious halls, one above the other ; the façade overlooking the court is most effectively ornamented with pieces of brick in various colours, arranged mosaic-wise to form simple patterns. At the opposite end of the courtyard there are extensive, but very dilapidated, ruins.

GENERAL NOTE.—This palace is one of the very few existing specimens of Byzantine domestic architecture. It was the favourite residence of the Comnenian Emperors, during whose régime, from 1081-1185, the Crusaders played an important part in both the fortunes and misfortunes of the Byzantine Empire. The building is popularly spoken of as the Palace of Belisarius and the Palace of the Hebdomon.

See following illustration.

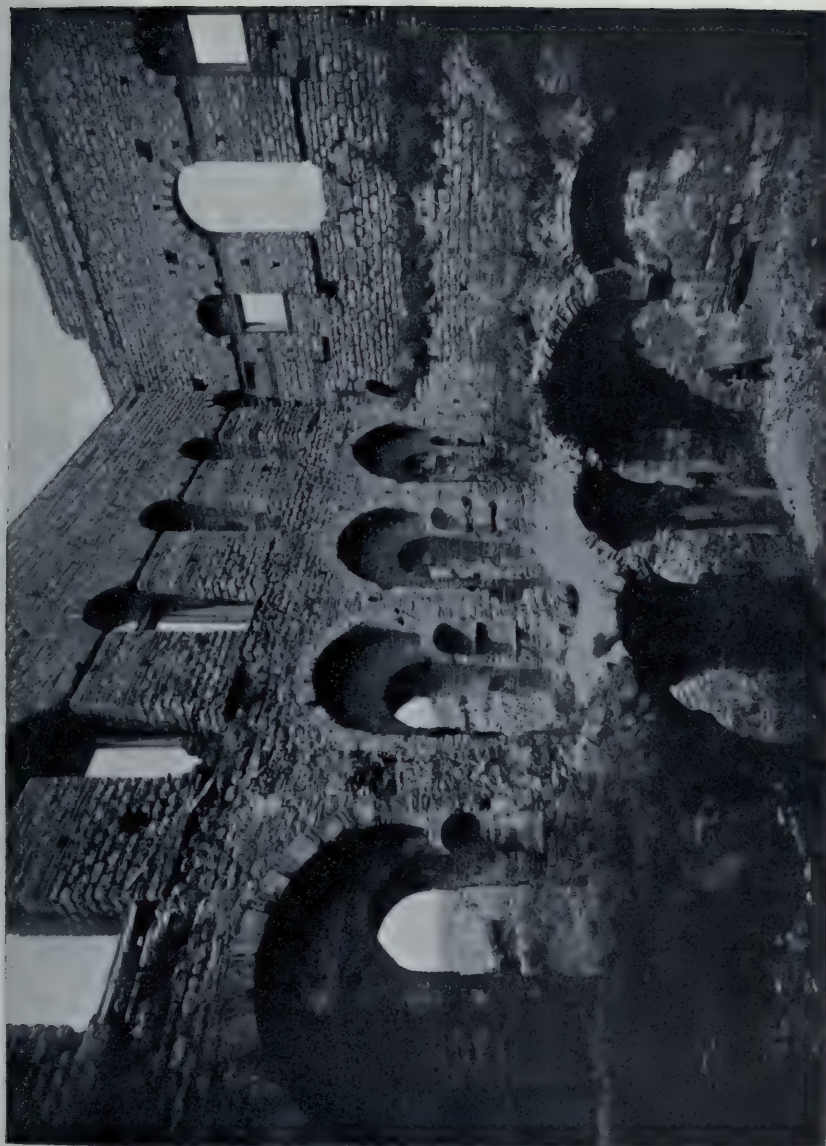


Stah & Foillier.

PALACE OF THE PORPHYROGENITUS AT
BLACHERNÆ: INTERIOR

CONSTANTINOPLE

See notes and illustration on pp. 96, 97.

*Sérah & Fossillier.*

CHURCH OF THE CHORA

CONSTANTINOPLE

HISTORICAL NOTE.—The church in connection with the Monastery of the Chora was founded during the fourth century, but was several times rebuilt. The existing church dates chiefly from the fourteenth century, but the central dome is ancient.

ARCHITECTURAL NOTE.—The dome rests on a drum, 26 feet in diameter. The church has an outer and inner narthex, famous for their mosaics, and an apse. Some authorities consider that the façade of this church was the model for that of St. Mark's, Venice.

GENERAL NOTE.—This building is now the Kahriyeh Mosque.



Sebah & Joallier.

STA. SOPHIA

SALONICA

HISTORICAL NOTE.—It is believed that this church, as we now find it, dates from the ninth or tenth century. It was, however, founded in the time of Justinian, is mentioned in a seventh-century document, and in its original form was probably built by Anthemius, the architect of Sta. Sophia, Constantinople.

ARCHITECTURAL NOTE.—This church was formerly the Cathedral of Salonica. It is a very large building, considering the period to which it belongs. It has an upper gallery and a central dome.

GENERAL NOTE.—Sta. Sophia was seriously injured by fire towards the end of the nineteenth century.

See following illustration.

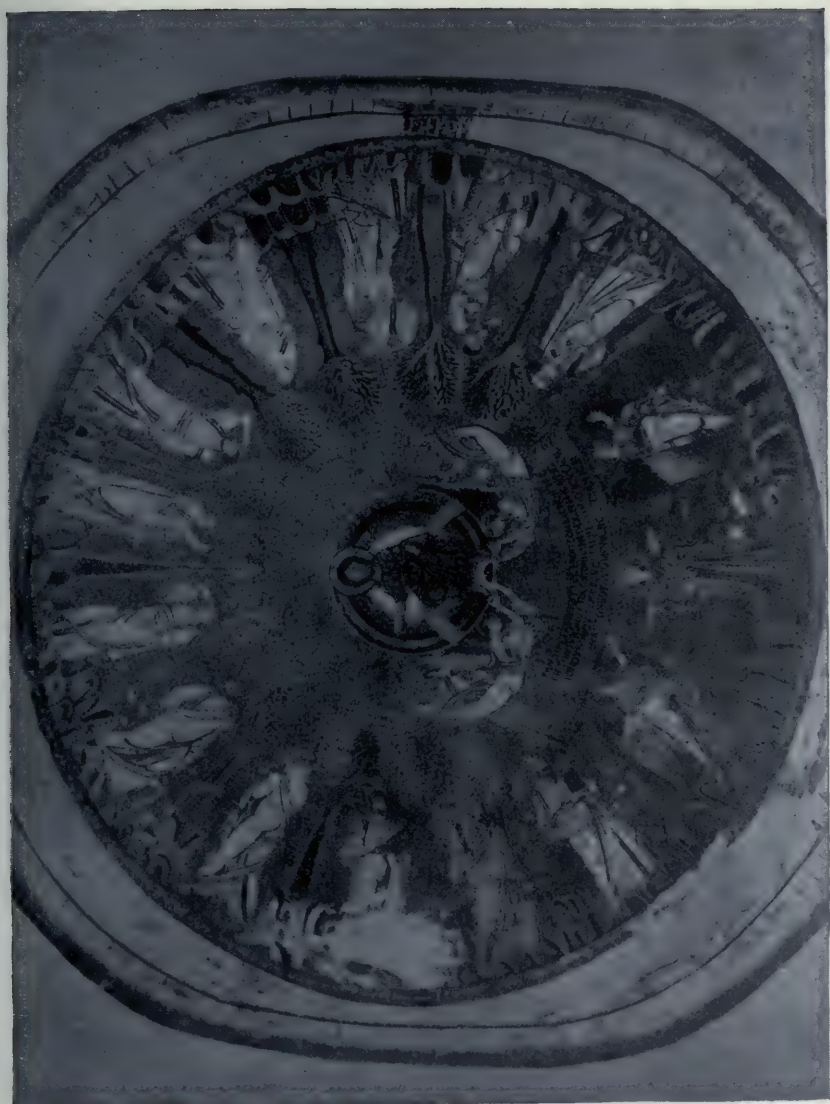
*P. Zepelin.*

STA. SOPHIA : DOME MOSAICS

SALONICA

The mosaics ornamenting the dome of Sta. Sophia are some of the finest examples of such work. It is generally believed that they cannot have been executed earlier than the tenth century, and some authorities assign them to the eleventh, or even the twelfth century.

See notes to previous illustration.

*Sérah & Joallier.*

CHURCH OF THE APOSTLES

SALONICA

HISTORICAL NOTE.—This church dates from the eleventh century, and belongs to the Neo-Byzantine period.

ARCHITECTURAL NOTE. — The plan is similar to that of the Theotokos at Constantinople. It is a small building ; external dimensions 63 feet by 59 feet.

GENERAL NOTE.—The Church of the Apostles is a remarkably fine specimen of Byzantine brickwork. The bricks are most picturesquely disposed in patterns.



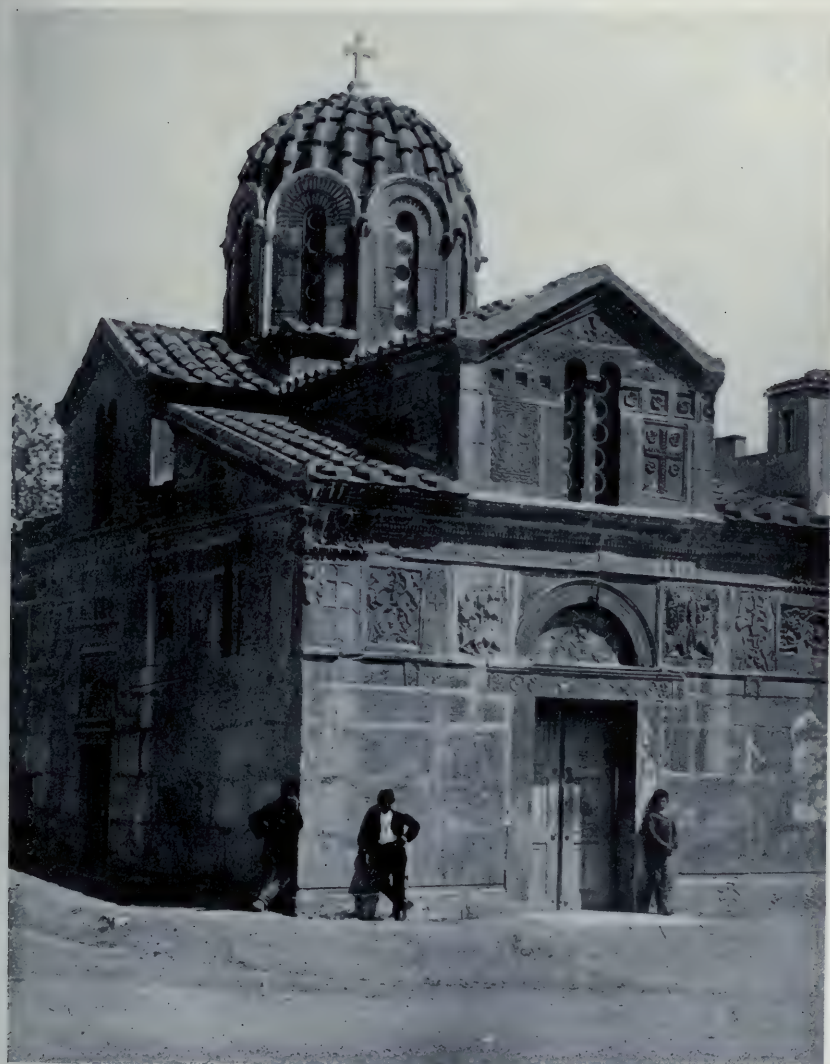
METROPOLE CATHEDRAL, ATHENS

GREECE

HISTORICAL NOTE.—There is considerable difference of opinion as to the date of this Small Metropolis, or ancient Cathedral, at Athens. Some authorities consider that it is an eighth-century building, others think it is of more modern origin, and is eleventh, twelfth, or even late thirteenth-century work.

ARCHITECTURAL NOTE.—Much of the material consists of classical fragments, and the builders made new details harmonize with the old remains they utilized. Hence the difficulty of fixing the date of the cathedral. In size this building is quite unpretentious, its external dimensions being only 40 feet by 25 feet. But it is a very pleasing and interesting little specimen of Byzantine architecture. The style very strikingly resembles that of the Byzantine churches in Armenia.

GENERAL NOTE.—The sculpture is a quaint mixture of pagan and Christian designs; side by side with Greek ornamentation—such as a calendar of festivals—on the adapted remains of ancient buildings, are crosses, that may have been added by the Early Christians, and animals typical of Byzantine workmanship.



Sabah & Foaillier.

ST. GREGORY OF THE FAMILY APOUGHAMRIAN, ANI

ARMENIA

HISTORICAL NOTE.—This church was founded at the end of the tenth century.

ARCHITECTURAL NOTE.—The plan is a polygon of twelve sides. Six of these sides have that popular Armenian feature, an external niche, marking the form of a recess in the interior. The dome is carried on a high drum, and has a conical roof. This is a very small, but well-proportioned and beautiful little specimen of Armenian-Byzantine architecture.

GENERAL NOTE.—Ani was the capital of the Armenian Kings from A.D. 961 to 1044. Subsequently it fell into the hands of the Greeks, Turks, Kurds, Georgians, and Tartars. It was severely wrecked by an earthquake in 1319, and, according to some historians, was then abandoned; but other authorities maintain that it did not become a deserted city until about the close of the fourteenth century.



Peshimaldjan.

ANI CATHEDRAL

ARMENIA

HISTORICAL NOTE.—This cathedral was built about A.D. 1010.

ARCHITECTURAL NOTE.—Taking into consideration its date, Ani Cathedral is remarkable in that the interior is built on a pointed-arched constructive system, and is therefore a very early specimen of transition to the Gothic style. Externally, however, the only pointed arch to be seen is not performing structural service ; it is merely an ornamental, trick feature, which is pretending that the arch of the vault has penetrated to the exterior of the transept.

GENERAL NOTE.—The Armenian-Byzantine style is largely the result of Persian influence ; in its turn it became the dominant influence in the formation of the mediæval Russian style of architecture.

*Pechinadjan.*

CHURCH OF THE REDEEMER, ANI

ARMENIA

HISTORICAL NOTE.—This church was built in the eleventh century, during the time that Ani was the capital of the Armenian Kings.

ARCHITECTURAL NOTE.—The Church of the Redeemer resembles the polygonal Church of St. Gregory ; but whilst the dimensions are slightly larger, and the design simpler, the proportions and general disposition of the parts do not combine to produce such a pleasing effect.

*Pechmalijian.*

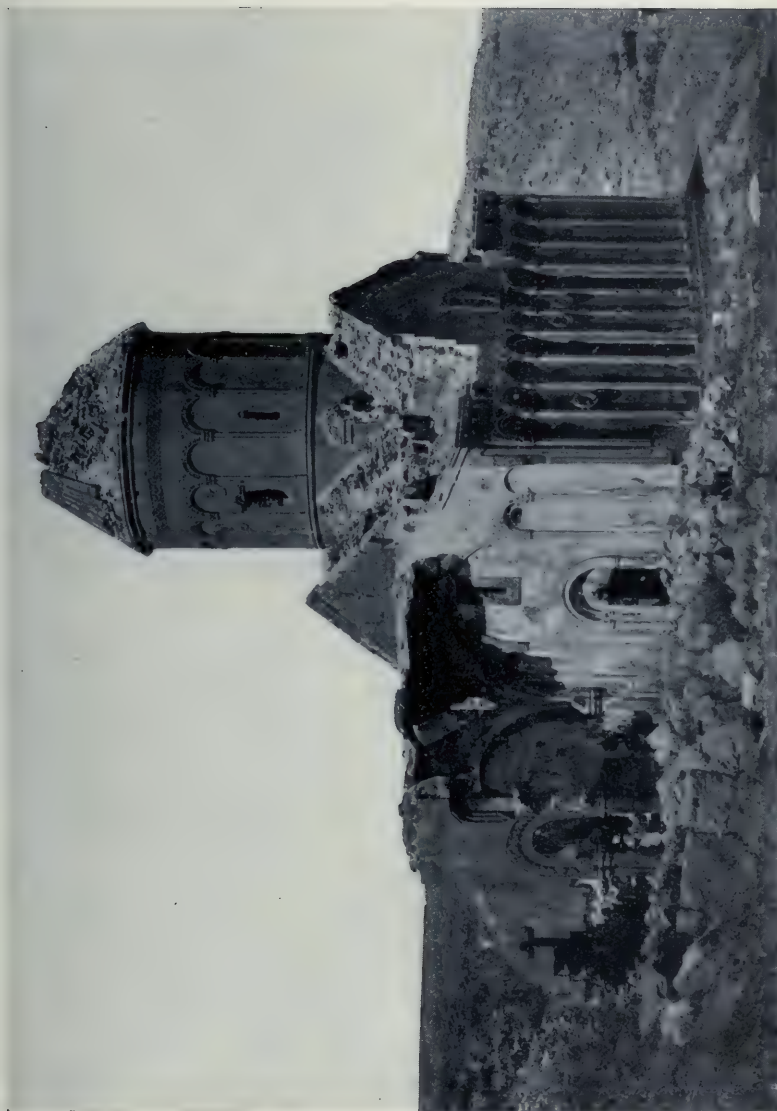
CHURCH OF ST. GREGORY THE ILLUMINATOR, ANI

ARMENIA

HISTORICAL NOTE.—The church dedicated to St. Gregory the Illuminator was erected about A.D. 1215.

ARCHITECTURAL NOTE.—This church is a characteristic specimen of Armenian architecture—simple in plan and exhibiting such favourite details as ornamental arcades, external niches, and a gabled roof surmounted by a dome with a conical covering. It is known that the architect was an Armenian, and that the church was built in connection with a monastery. The Saracenic porch is of later date.

GENERAL NOTE.—A detailed account of Armenian buildings is included in one of the most interesting of modern travel books—‘Armenia,’ by H. F. B. Lynch (Longmans, Green and Co.).



Paestum, Italy.

ST. MARK: EXTERIOR

VENICE

HISTORICAL NOTE.—The existing church was begun about A.D. 977, and consecrated in A.D. 1094; the most active period of building operations was between A.D. 1063-1071. Embodied in it are numerous remains of an earlier church. It also includes columns and other details brought from various parts of the East, and various details added between the twelfth and fourteenth centuries.

ARCHITECTURAL NOTE.—The plan is a Greek cross, with equal arms, covered with five domes—one in the centre, and one over each of the four arms. This plan was in all probability suggested by that of the Church of the Holy Apostles at Constantinople (which was destroyed in the fifteenth century to make way for a mosque). Much of the ornamentation to the façade, shown in the accompanying illustration, is of later date than the main body of the building, being twelfth to fourteenth century embellishment. Externally, the domes are also mediæval work.

GENERAL NOTE.—During the eleventh century Venice began to be the great commercial link between East and West. As an outcome of her wealth and artistic ambition, the intimate trading associations she had with both the Orient and Occident led to the development of a local architectural style that is partly Byzantine, partly Romanesque. In the main St. Mark's belongs to a period when the Venetian builders were being more strongly influenced by their Byzantine neighbours than by the new building races in the West, who were then making history as the pioneers of Gothic architecture.

See notes and illustrations on pp. 120-127

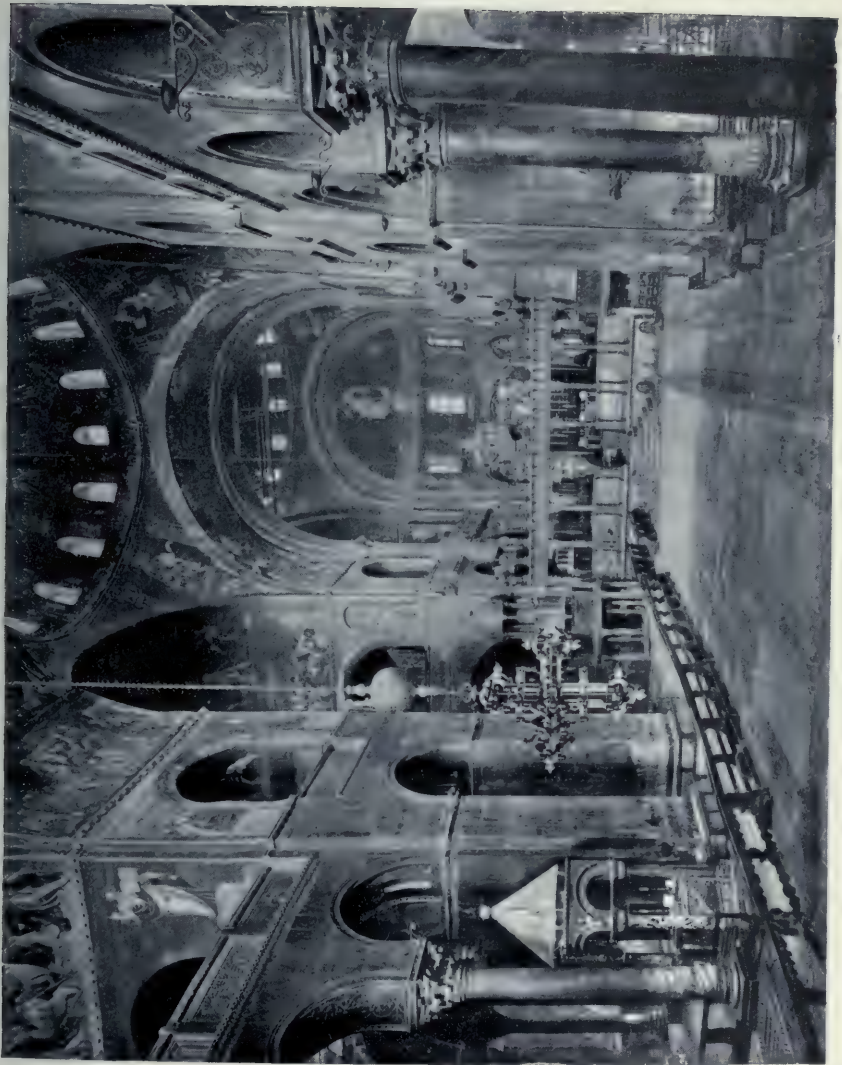
*Anderson.*

ST. MARK: INTERIOR

VENICE

The first impression made by the interior of St. Mark's is created by its wondrous colour-display. That is inevitable, however little the new-comer may be susceptible to colour-effects. And anyone with an inborn love of colour who sees St. Mark's will henceforth find in the mere mention of its name a spell which fills the heart with joy as it conjures up a vivid picture of rainbow hues on a glittering mantle of gold. The floor is inlaid with marble mosaics; in their lower part the walls are a magnificent exhibition of coloured marbles; vault, dome and walls to the upper margin of the marbles are devoted to a display of glass mosaic, consisting of saints and scenes in their lives wrought in colours and framed in gold; and as the eye travels through the space that is thus enclosed in colour, it finds more and more colour in the details, such as pillars, altars, and pulpits. The mosaics extend over an area of nearly 46,000 square feet. Some of them are believed to have been executed as early as the tenth century, and many are eleventh and twelfth century work; but others are of later date, belonging chiefly to the sixteenth century.

See notes and illustrations on pp. 118, 119, 122-127.



Breg.

ST. MARK: ENTRANCE HALL

VENICE

See notes and illustrations on pp. 118-121, 124-127.

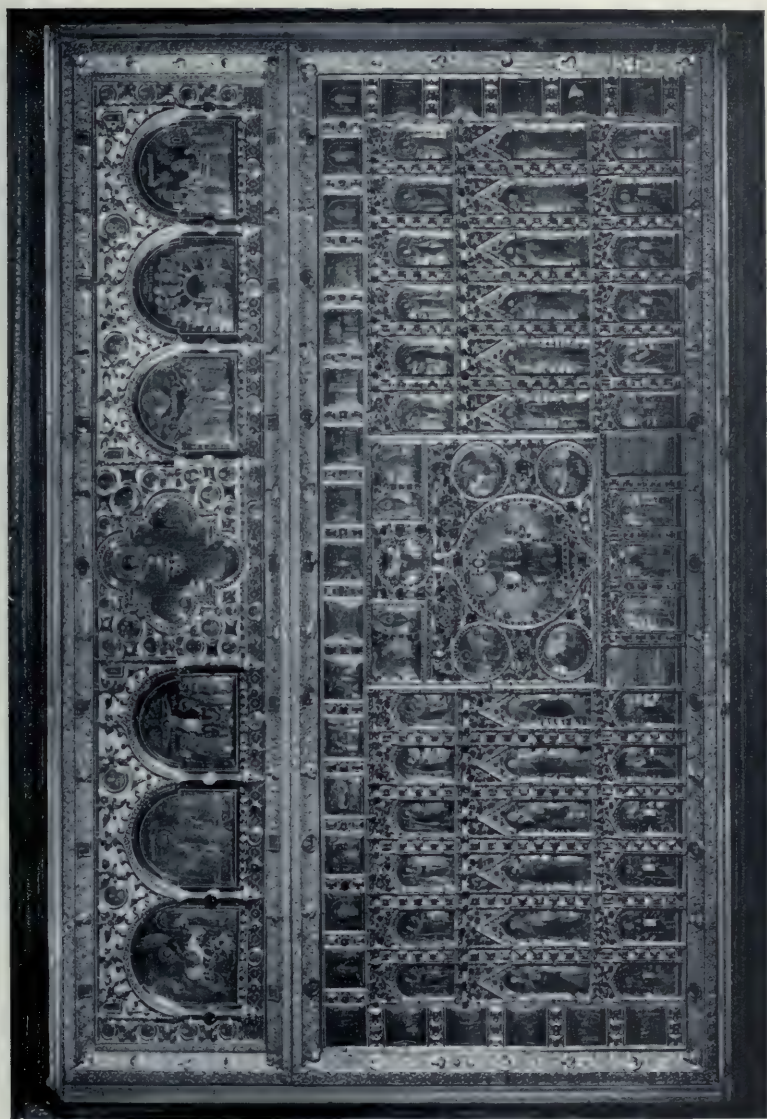
*E. Alinari.*

ST. MARK: LA PALA D' ORO

VENICE

The *Pala d' oro* is the altar-piece to the high-altar of St. Mark's. It was executed at Constantinople in 1105, and is a remarkably luxurious example of Byzantine decorative art. The mosaics are wrought on plates of gold and silver and their framework has rich incrustations of jewels.

See notes and illustrations on pp. 118-123, 126, 127.



ST. MARK : CAPITAL

VENICE

The accompanying illustration shows one of the twelfth-century capitals in the interior.

See notes and illustrations on pp. 118-125.

*E. Altieri.*

CAHORS CATHEDRAL

FRANCE

HISTORICAL NOTE.—This cathedral dates from A.D. 1050-1100.

ARCHITECTURAL NOTE.—Sta. Irene at Constantinople was the model for Cahors Cathedral.

See notes and illustrations on pp. 94, 95.

*P. Robert.*

S. FRONT, PÉRIGUEUX

FRANCE

HISTORICAL NOTE.—S. Front dates from about A.D. 1100.

ARCHITECTURAL NOTE.—This church testifies to the spread of Byzantine influence very far West. In plan it strikingly resembles St. Mark, Venice. But whilst St. Mark is still magnificently decorated, S. Front is now a plain shell; it is, however, thought that the French copy was originally enriched with painted ornamentation.

GENERAL NOTE.—S. Front, which owes its Byzantine origin to trading relations between Périgueux and Constantinople, set the example in the erection of domical churches in Southern France.

*Neudamm.*

MODERN BYZANTINE

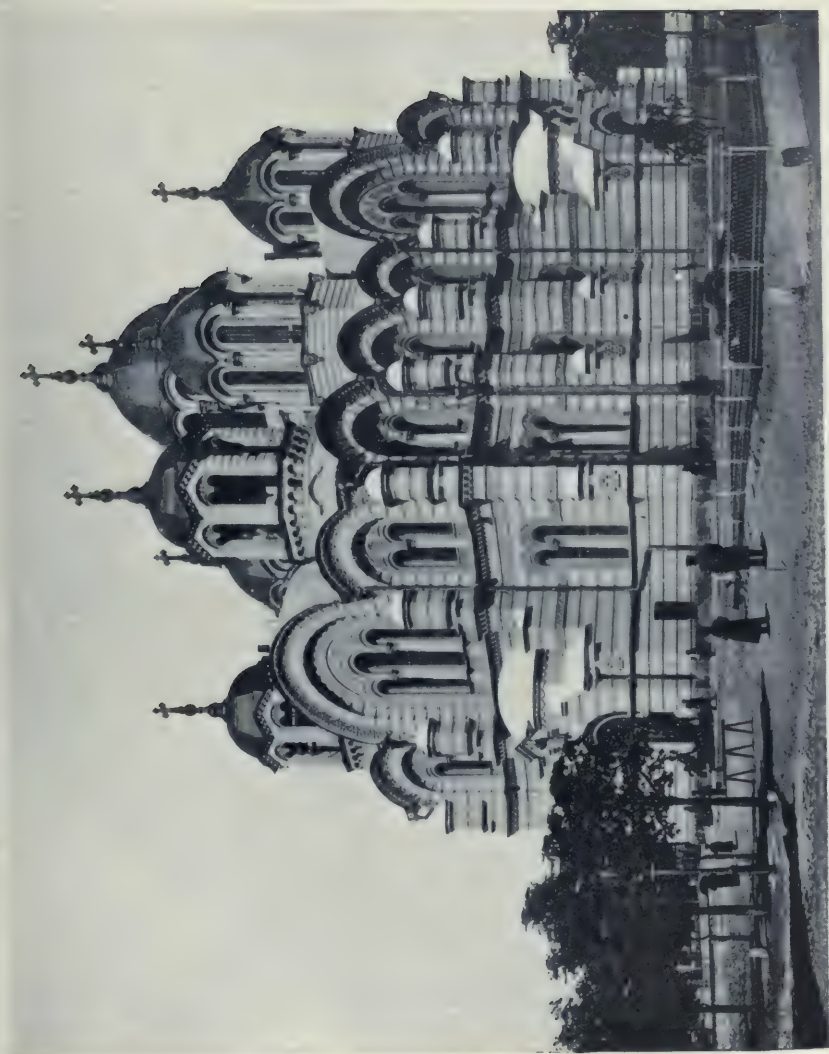
ST. VLADIMIR CATHEDRAL

KIEV, RUSSIA

HISTORICAL NOTE.—St. Vladimir Cathedral was erected between A.D. 1862 and 1896.

ARCHITECTURAL NOTE.—This is an imposing specimen of a modern ecclesiastical building in Russia, in the Byzantine style.

GENERAL NOTE.—The seven domes are gilded.



MODERN BYZANTINE

WESTMINSTER CATHEDRAL

LONDON

HISTORICAL NOTE.—The foundation-stone was laid in 1895. By the close of 1901 practically the whole of the shell of the cathedral was finished ; the campanile, too, had now been carried up to nearly its full height, and it was completed by the early part of 1903.

ARCHITECTURAL NOTE.—Westminster Cathedral, designed by the late Mr. John F. Bentley, is one of the finest buildings erected in modern days. The style is Byzantine, that of the interior being Byzantine at its best, such as we find in Sta. Sophia, Constantinople. The building, which covers an area of about 54,000 square feet, is constructed mainly of red bricks. Externally its principal features are the campanile, or St. Edward's Tower, built of red brick and banded with Portland stone—total height, 284 feet; and the west front, an imposing porch surmounted by turrets. The porch leads into a narthex, extending the entire width of the cathedral; beyond is a vast interior, consisting of a nave terminating in a raised apsidal choir, two aisles with transepts, a baptistery and side chapels. Over the narthex and aisles are spacious galleries. The nave is covered by three domes, each 60 feet in diameter. The interior of this great building makes its first appeal through the combined mediums of size and proportions; there follows the strong appeal of magnificent details, such as the multitudinous array of exceptionally beautiful marble columns, and the high-altar of grey granite, with an elaborately decorated baldacchino. The walls are, for the most part, bare, but they have so much natural beauty that some people would prefer that they should be left unadorned.

GENERAL NOTE.—Funds permitting, it is intended, in course of time, to face with marble the whole of the lower walls and piers to a height of about 38 feet, also the front of the nave galleries; and to decorate with mosaic work the whole of the upper part of the piers and walls, also the vaults and domes. The marble and mosaic decorations have already been completed in some of the side chapels.



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Browne, Edith A.
Early Christian and
Byzantine architecture

