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# ENCYCLOPÆDIA BRITANNICA

Volume 23

VASE TO ZYGOTE



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"LET KNOWLEDGE GROW FROM MORE TO MORE  
AND THUS BE HUMAN LIFE ENRICHED."



# ENCYCLOPÆDIA BRITANNICA

## Volume 23 VASE TO ZYGOTE

**VASE**, a vessel, particularly one of ornamental form or decoration; the term is often confined to such vessels which are uncovered and with two handles, and whose height is greater in proportion to their width. (See POTTERY AND PORCELAIN.)

**VASSAL**, the tenant and follower of a feudal lord (see FEUDALISM). The etymology of the word remains obscure. Under the Frankish empire the *vassi dominici*, essentially servants of the royal household, were great officers of state, sent on extraordinary missions into the provinces, to supervise local administration in the interests of the central power. Sometimes they were sent to organize and govern a march; sometimes they were rewarded with benefices; and as these developed into hereditary fiefs, the word *vassus* or *vassallus* ("servant," "retainer") was naturally retained as implying the relation to the king as overlord, and was extended to the holders of all fiefs. In course of time the word came to acquire a military sense, and in medieval French poetry *vasselage* is commonly used in the sense of "prowess in arms," or generally of any knightly qualities. In this sense it became acclimatized in England; in countries not feudally organized—i.e., Castile—vassal meant simply subject, and during the revolutionary period acquired an offensive significance as being equivalent to slave. For usage in international law see also SUZERAINTY.

**VASSAR COLLEGE**, a privately endowed, nonsectarian institution of higher learning for women, was founded by Matthew Vassar at Poughkeepsie, N.Y., in 1861. First called Vassar Female college, it took its present name in 1867. See POUGHKEEPSIE.

**VÄSTERÅS** (VESTERÅS or WESTERÅS), a town and bishop's see of Sweden, capital of the district (*län*) of Västmanland, on a northern bay of Lake Mälaren, 60 mi. N.W. by W. of Stockholm by rail. Pop. (1960) 77,778. The original name of the town was Västra Aros ("western mouth"), as distinct from Östra Aros, the former name of Uppsala. Several national diets were held in Västerås, the most notable being those of 1527, when Gustavus Vasa formally introduced the Reformation into Sweden, and 1544, when he had the Swedish throne declared hereditary in his family. Its Gothic cathedral, rebuilt by Birger Jarl on an earlier site and consecrated in 1271, was restored in 1850–60, and again in 1896–98. The episcopal library contains the valu-

able collection of books which Count Axel Oxenstjerna, the chancellor of Gustavus Adolphus, brought away from Mainz near the end of the Thirty Years' War. A castle overlooking the town was captured by Gustavus Vasa and rebuilt by him, then was rebuilt in the 17th century, and remains the seat of the provincial government.

**VÄSTERNORRLAND** (Vesternorrland or Westernorrland), county (*län*) of northeast central Sweden, on the Gulf of Bothnia. Pop. (1960) 285,620. Area, 9,924 sq.mi. The heavily forested highland furnishes timber for the sawmilling, woodworking and wood-processing industries throughout the county. Härnösand is the capital and a seaport for shipping timber products.

**VATICAN, THE**, official residence of the pope, the nucleus of the Vatican City State which forms an enclave in the city of Rome, the geographical centre of the Roman Catholic Church.

### GOVERNMENT AND FAMIGLIA

**Government.**—The hierarchical power of the Roman Catholic Church culminates in the person of the pope (*q.v.*), whose residence is in the Vatican palace; and the basilica of St. Peter (the Vatican basilica) is the church that occupies the first place in the minds of Catholics. In ancient times, however, the popes habitually resided in the Lateran palace and only at a later date in the Vatican. St. Peter's is the only basilica within the confines of the Vatican City State; but the pope exercises sovereign rights over all the patriarchal basilicas in Rome.

By the Lateran treaty of June 7, 1929, the Italian government recognized the Vatican City State as independent and sovereign, thus restoring the temporal power of the pope, which had been liquidated when Italian forces occupied Rome in 1870.

Being the seat of the pope, the Vatican is also the seat of the Sacred College of Cardinals (see CARDINAL), whose members are his closest advisers. The business of ecclesiastical government is administered by the Roman curia (see CURIA ROMANA).

All Catholic bishops are obliged to present a report on the state of their dioceses and at the same time to pay periodic visits to the basilica of St. Peter. European bishops have to make this visit every five years, bishops in other parts of the world every ten years.

The permanent representatives of the Holy See with the Catho-

lic hierarchy of other countries are called apostolic delegates. These are prelates, usually with the titular rank of archbishop. According to the country in which they serve, their delegation is subordinate to the Consistorial congregation, to the Congregation for the Eastern Church or to the Congregation *de Propaganda Fide* ("for the propagation of the faith").

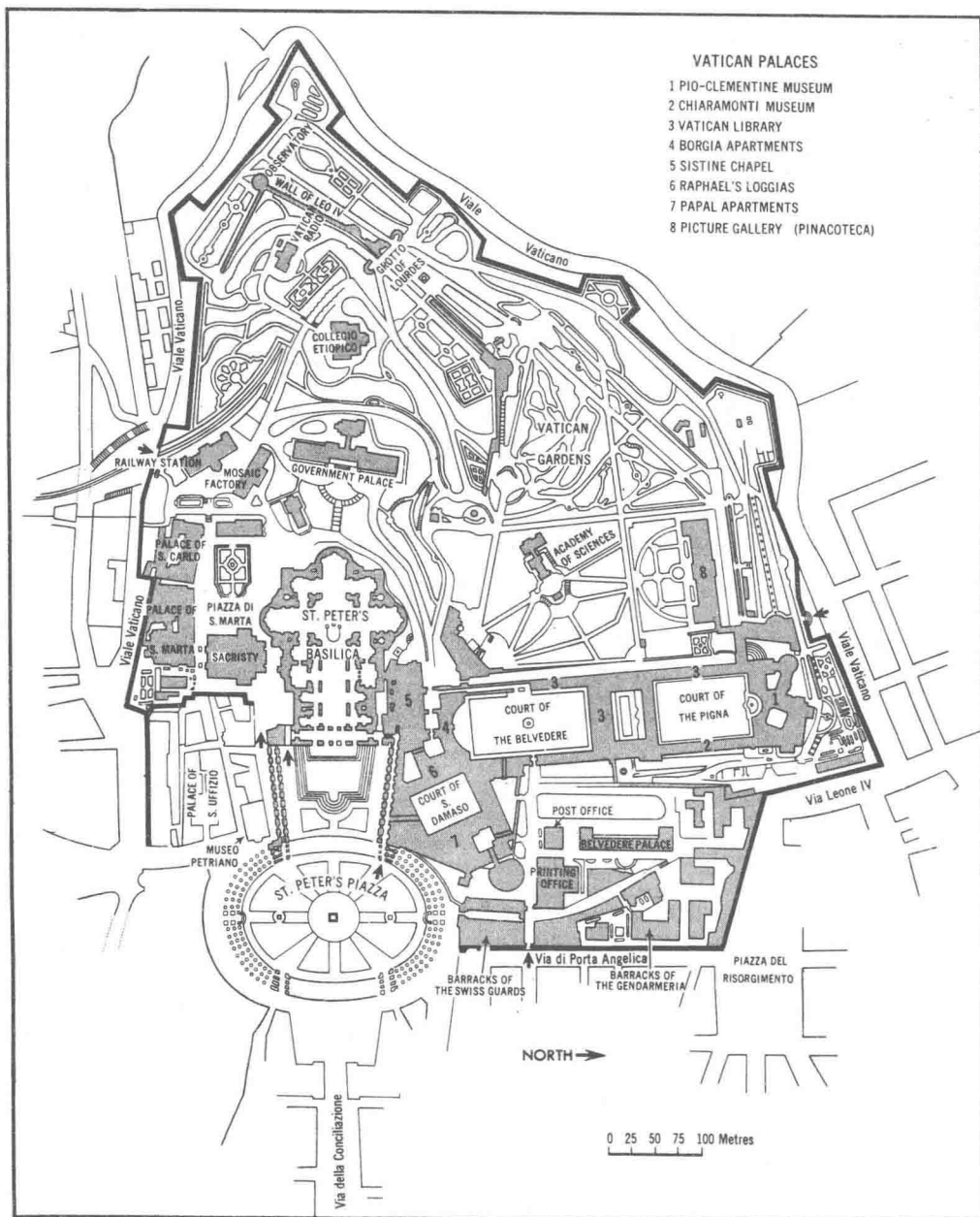
Prelates sent abroad by the Holy See on temporary missions for ecclesiastical purposes are called apostolic visitors. On certain important religious occasions a cardinal may be sent by the pope with the title of legate.

The diplomatic representatives of the Holy See with foreign governments are either nuncios or internuncios, the distinction corresponding to that between ambassadors and ministers plenipotentiary. Nuncios, who generally have the titular rank of archbishop, may be of the first or of the second degree, according to the actual or historical rank of their particular post; the diplomatic career of a nuncio of the first degree usually is completed by elevation to the cardinalate. (See NUNCIO.)

**Famiglia.**—The personal entourage of the pope, as distinct from the government of the church, is known as the *famiglia pontificia*. A great part of this *famiglia* consists of the members of the *cappella pontificia*, the collective name for those participating in the *cappella papale*, that is, in rites performed or attended by the pope himself or specifically requiring his presence.

The *cappella* includes all cardinals, patriarchs, bishops assistant at the papal throne and other bishops who happen to be present at the time in the curia; other high officials of the curia; the princes assistant at the throne; the secretaries and assessors of the Sacred Congregations; the apostolic protonotaries; the generals and procurators of the religious orders; the consistorial advocates; the ecclesiastical privy chamberlains; etc. Within the *famiglia*, the cardinals most closely associated with the pope are the palatine cardinals. The privy chamber includes the palatine prelates (the prefect of the Apostolic Palace; the prefect of the bedchamber; the auditor; and the master of the Apostolic Palace) and several groups of privy chamberlains, both ecclesiastical and lay. Certain posts in the *famiglia* are always entrusted to members of certain religious orders. Thus the master of the palace, the theologian of the *famiglia*, is always a Dominican; the sacristan, an Augustinian friar; the apostolic preacher, who delivers the Advent and Lent sermons in the pope's presence, a Capuchin; and the confessor, a Servite.

The principal laymen of the *famiglia* are the heads of the great families of the old Roman nobility. Thus the prince Colonna and the prince Orsini may have the title princes assistant at the pontifical throne and take it in turn to attend upon the pope; the prince Massimo is grand master of the pontifical posts (in the sense of

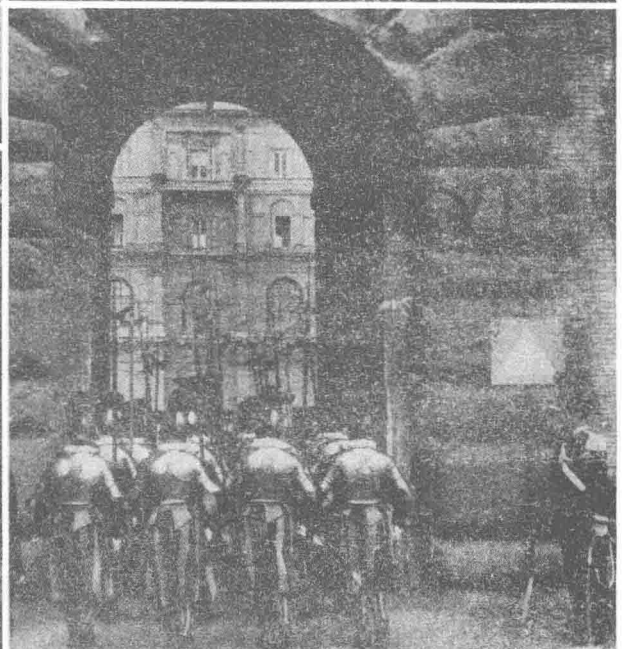
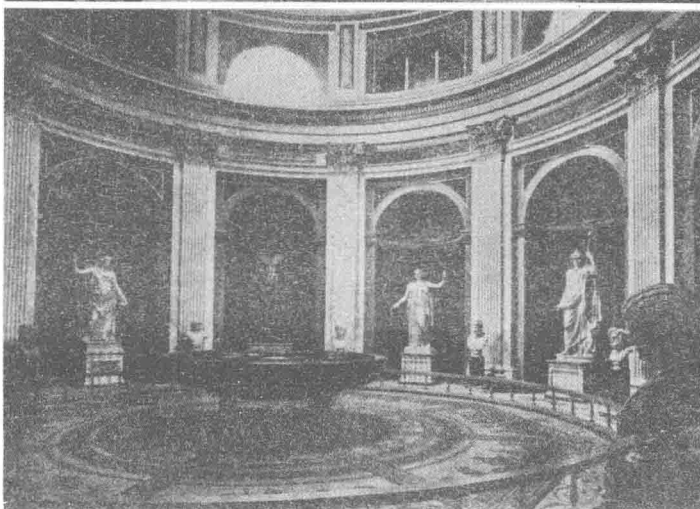
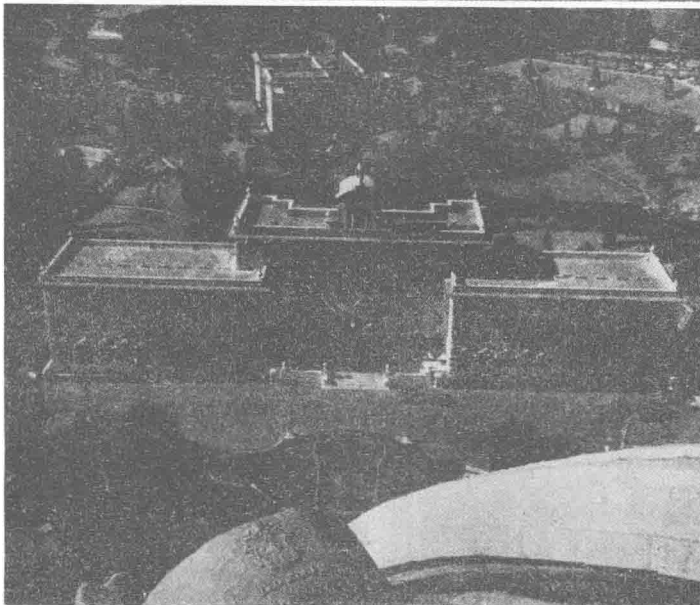
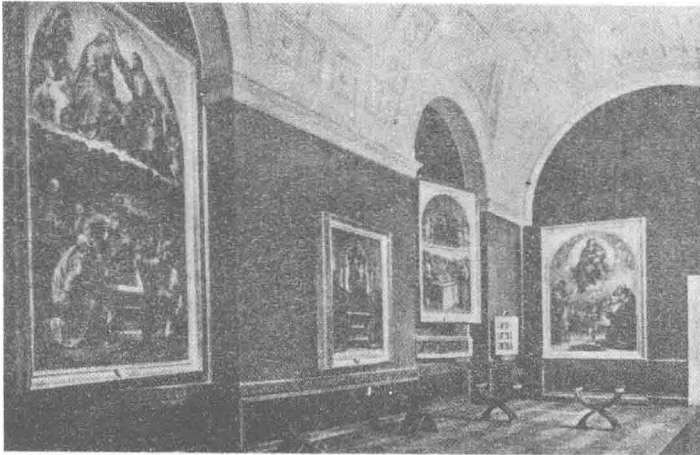


THE VATICAN, SHOWING LOCATION OF PRINCIPAL BUILDINGS. DARK ARROWS INDICATE ENTRANCES

stages in the journeys of the pope, should he have to travel); the prince Ruspoli is grand master of the Sacred Hospice (responsible for hospitality to visiting heads of state and princes); the marchese Sacchetti is *foriere maggiore* (superintendent of buildings, water supply and furnishings) of the Sacred Palaces; the marchese Patrizi is standard bearer of the Holy Roman Church; and the marchese Serlupi is master of the horse. The lay privy chamberlains are called "chamberlains of sword and cloak" (*camerieri di spada e cappa*) because of their distinctive ceremonial dress—in the fashion of the 16th-century Spanish nobility. The protection of the pope's person is ensured by the *guardia nobile* which consists of officers drawn from noble families; and by the Swiss guard, a corps instituted by Julius II and consisting of Swiss citizens recruited at first from the original cantons of the Swiss confederacy and in modern times from nearly all the others as well. There is also a guard of honour recruited from among the citizens of Rome (*guardia palatina d'onore*). A corps of police known as the *gendarmeria pontificia* is responsible for maintaining order in the Vatican City State and in the palaces that belong to it.

Papal ceremonies are attended by the diplomatic corps accredited





PHOTOGRAPHS, (TOP LEFT) ALINARI, (TOP RIGHT, BOTTOM LEFT) ANDERSON, (CENTRE LEFT) PAUL PIETZSCH FROM BLACK STAR, (BOTTOM RIGHT) UNITED PRESS

### VIEWS OF THE VATICAN

*Top left:* Salon of Raphael in the Vatican Pinacoteca constructed by Pius X in 1909. It contains the "Madonna of Foligno," "The Coronation of the Virgin" and the "Theological Virtues and Mysteries," all painted by Raphael

*Top right:* Interior of the Sistine chapel. Ceiling frescoes, painted by Michelangelo in 1508-12, embody the story of Genesis. Above the altar is Michelangelo's "Last Judgment," completed in 1541

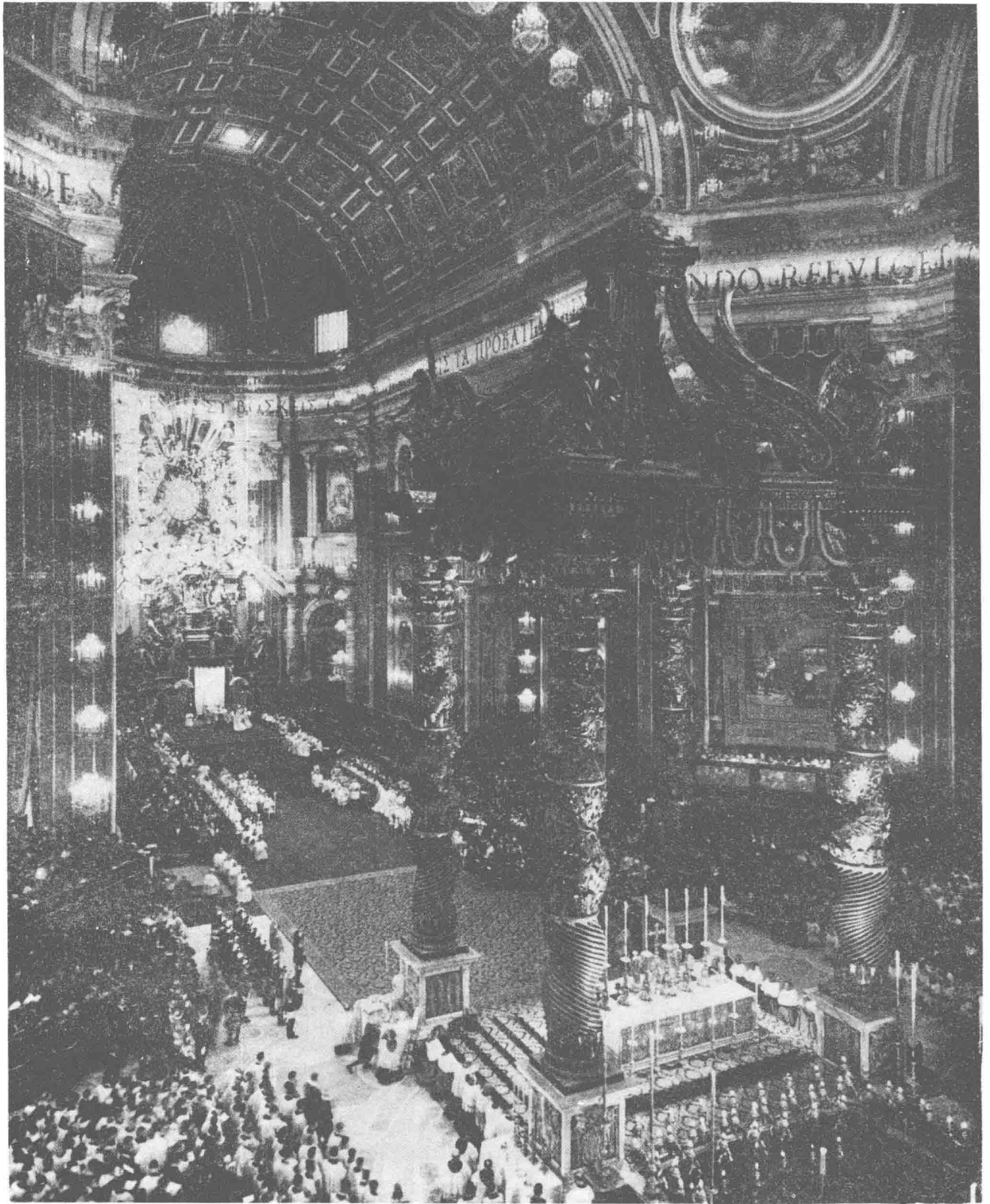
*Centre left:* Vatican City Government palace viewed from the cupola of

St. Peter's. The building in the background houses the Vatican radio transmitter

*Bottom left:* Sala Rotonda, a circular room containing Greek and Roman sculpture in the Pio-Clementine museum, was designed by Simonetti (1840-92) after the Pantheon. The basin in the centre is of porphyry

*Bottom right:* The Swiss guard, part of the army of the Vatican, were organized by Pope Julius II in the early 16th century. Their uniforms were allegedly designed by Michelangelo or by Raphael





PHOTOGRAPH, LEONARD VON MATT FROM RAPHO-GUILLET

### ST. PETER'S BASILICA

The interior of St. Peter's showing the bronze baldachin (canopy) by Bernini (1598-1680) over the papal altar. At the far end of the apse is a bronze throne, also by Bernini, containing the wooden chair of St. Peter, and above it is an aureole of gilded stucco

to the Holy See; by the Roman patriciate and nobility; by the knights of Malta and of the Order of the Holy Sepulchre. When the papal entourage appears as a whole, in procession, it provides a spectacle of dazzling splendour. It includes cardinals and bishops wearing *cappae magnae* trimmed with ermine or gold-embroidered vestments; Roman princes with cloaks edged with lace; chamberlains "of sword and cloak"; prelates in violet soutanes; representatives of the religious orders; knights of Malta in scarlet tunics; officers in armour of steel damascened with gold; and the Swiss guards in the blue, red and yellow uniform allegedly designed by Michelangelo or by Raphael. Last in the procession comes the pope on the *sedia gestatoria*, a sort of throne on a platform carried on the shoulders of 12 servants wearing liveries of crimson damask. Above the *sedia* is a canopy of cloth of silver, the golden supports of which are borne by eight prelates. Two privy chamberlains, one on either side of the throne, carry *fiabelli* or immense fans adorned with ostrich feathers.

### CEREMONIES AND RITES

The Vatican basilica is served by a chapter of canons (who in virtue of their office, like the canons of the chapters in the patriarchal basilicas of St. John Lateran and Sta. Maria Maggiore, rank as supernumerary apostolic protonotaries) and by a large body of clergy under the episcopal jurisdiction of a cardinal, who has the title of archpriest. Some of the ceremonies and rites peculiar to the basilica or to the chapels of the Vatican palace may be mentioned here.

The coronation of a new pope, which takes place within a few days of the preceding conclave, is, in itself, not quite a religious ceremony (*see* PAPACY). On his way to the place of coronation, the pope is met by a master of ceremonies holding a silver-plated staff at one end of which a piece of tow has been fixed and by a cleric holding a lighted candle; three times the flame is applied to the tow and the staff raised, each time with the words *Sic transit gloria mundi* ("Thus passes away the glory of the world"). The tiara (*q.v.*) is set on the pope's head by the senior cardinal deacon, who says, in Latin: "Receive the tiara with the three crowns, and know that thou art the Father of kings and princes, the pastor of the universe, and the vicar on earth of our Lord Jesus Christ, to whom belongs honour and glory, world without end." Pius XII and John XXIII were crowned on the balcony of the basilica.

The rite of beatification (*see* CANONIZATION) begins with the reading of a papal brief proclaiming the new blessed in the presence of the cardinal archpriest, of the Vatican chapter and of the members of the Congregation of Rites, and is concluded in the afternoon of the same day, when the pope goes in procession to the basilica, prays before an image of the new blessed and receives the Benediction of the Holy Sacrament. The rite of canonization is of a much more solemn character; after a "postulation" made by the "consistorial advocate" and special prayers for the help of the other saints and for light from the Holy Ghost, the pope himself proclaims the new saint and then celebrates the pontifical mass.

At the beginning of a holy year or jubilee (*see* JUBILEE YEAR) the pope opens a special door, the holy door, in the Vatican basilica, so that the faithful may accomplish the rite of passing through it; and at the end of the year he closes it, after which it remains sealed until the next jubilee. (There are also such doors in the patriarchal basilicas of the Lateran, of S. Paolo-fuori-le-Mura and of Sta. Maria Maggiore.)

On the eve of the feast of St. Peter every year the pope blesses the pallia in the Vatican basilica; they are then stored in a coffer near the tomb of St. Peter until they are required for new archbishops.

Another unique ceremony is the washing (*lavanda*) of the principal altar of the basilica with wine and balm, done on the evening of Holy Thursday after the singing of the *Tenebrae* by the cardinal archpriest and the chapter. A further custom, performed at the great festivals of the church, is the showing (*ostensio*) of certain relics from the balcony of a small chapel in one of the piers supporting the dome of the basilica. These relics are (1) Veronica, the veil with which, according to tradition, a pious woman named Veronica wiped our Lord's face as He was going up

to Calvary and on which His features are believed to have remained imprinted; and (2) what is believed to be the point of the lance that pierced the side of Jesus on the cross, discovered at Antioch during the first crusade, later captured by the Moslems and eventually presented to Pope Innocent VIII by the Turkish sultan Bayezid II in 1492.

The blessing of the golden rose (*q.v.*), on the fourth Sunday in Lent (annually in former times, but less frequently in the 20th century), takes place in the pope's private chapel in his official apartments. In the same chapel, which is to be distinguished from the private chapel in his private apartments, important visitors are sometimes allowed to hear mass and to receive the sacrament from the pope himself. For the blessing of the Agnus Dei medallions *see* AGNUS DEI.

The Sistine chapel in the Vatican palace is reserved for papal ceremonies (*i.e.*, for ceremonies performed or attended by the pope accompanied by the *cappella*) and for the conclave (*q.v.*). The Pauline chapel is convenient for the spiritual needs of the inhabitants of the Vatican. The parish church, however, is that of St. Anne, by the Porta di Sant' Anna. (X.)

### HISTORY

**The Vatican Hill and Necropolis.**—Before the erection of the basilica of Constantine, the area of the Vatican had an altogether different appearance from what it has today. The Vatican valley, occupied in part by the circus of Gaius (roughly where the palace of the Holy Office is now), was about 59 ft. above sea level. The elevation of the square in front of the present-day sacristy rises from 82 ft. at its eastern corner to about 92 ft. at its western one. The new basilica covers an area nearly 99 ft. above sea level, while the base of the obelisk in St. Peter's square is at less than 63 ft.; advancing northward up the Vatican hill one encounters a level of 127 ft. for the courtyard of S. Damaso, while the highest point of the entire complex is found in the gardens, 264 ft. above sea level. To the casual observer, however, the difference of more than 205 ft. between valley and summit is not immediately apparent because of the maze of buildings.

The valley was in antiquity somewhat boggy and consequently considered by the Romans to be unhealthy. This situation was remedied in part by the elder Agrippina (d. A.D. 33), who drained the valley and erected terraces for gardens on the hillside; and it was there that her son, the emperor Gaius (Caligula), constructed the circus, which was joined to the Tiber by a portico. The emperor Nero in A.D. 59 took over other gardens there (Tacitus, *Annals*, xiv, 14) that had belonged to his aunt Domitia Lepida.

The Vatican zone was reached by three main highways: the Via Triumphalis, which left Rome in a northwesterly direction toward the present-day Monte Mario; the Via Cornelia, perhaps the oldest, which passed near the spot where the emperor Hadrian erected his remarkable tomb; and the Via Aurelia Nova, which must have passed between the circus and the necropolis discovered in the 1940s. The numerous clay deposits in the vicinity were used by the Romans in manufacturing wine jugs, cooking utensils and, especially, bricks and tile.

The Vatican area, from the right bank of the Tiber up to the top of the hill, lying as it did outside the city walls, was extensively used by the ancient Romans as a burial ground. Many of their large tombs were given strange names by medieval Romans; for instance the "Pyramid of Romulus," a large mausoleum demolished in 1499 by Alexander VI, and the "Terebintus" or "Obelisk of Nero," a large circular tomb likewise demolished in the 15th century. Many of these tombs belonged to the charioteers of the nearby circus, and some were even used to bury famous race horses in the reigns of the emperors Domitian, Trajan and Antoninus Pius. Roman tombs were found in the time of Pope Nicholas V, when in 1452 work was begun on the apse for the new basilica; and others were uncovered as the construction progressed into the 16th and 17th centuries in the area today occupied by the façade of the basilica and St. Peter's square. An immense Roman necropolis was discovered between 1887 and 1908 in the zone between the modern Via di Porta Angelica and the edge of Monte Mario, containing some very ancient tombs, among them those of freedmen

of the emperor Claudius. Other Roman tombs were found while foundations for the Vatican governor's palace were being laid, and still others were uncovered in the Vatican gardens and under the Annona Vaticana. Even in 1956, during the construction of an edifice north of the Vatican post office, tombs were discovered bearing inscriptions dating from the 1st century A.D., two of them mentioning a male and a female slave of Nero.

The most interesting necropolis, however, came to light during the excavations carried out by personal initiative of Pius XII during the years 1941-49 under the central nave of St. Peter's basilica. In the zone south and east from the basilica's high altar were discovered two rows of mausoleums belonging for the most part to freed slaves of aristocratic and imperial families. Arranged in two parallel rows, the more ancient mausoleums occupied the north row, the one nearest the hillside; but all had their entrances on the south side, that is, facing the Roman road separating the necropolis from the circus. In fact, above the door of the easternmost mausoleum an inscription was found, in which the heirs of Gaius Popilius Heracla transcribed that section of his will stipulating the erection of this mausoleum for himself, his wife and descendants *in Vaticano ad circum* ("on the Vatican near the circus").

The mausoleums, embellished with stucco work and frescoes, were almost all employed for cremation as well as for inhumation; in the case of cremation the ashes were deposited in urns of terra cotta, of marble or even of alabaster; for inhumation the bodies were interred in sarcophagi of terra cotta or of marble richly decorated with scenes from Dionysian mythology or at times even with portraits of the defunct.

Inscriptions on the sarcophagi furnish some idea of the social class of the Romans buried there; they include freedmen of many of the aristocratic families, as well as freedmen of the emperors Antoninus Pius, Diocletian and Maximian. In some of these mausoleums Christian tombs were found; in one inscription can be read the date of the burial; in another a husband wishes for his wife Aemilia Gorgonia eternal rest, the inscription being framed between two doves with olive branches and the carved portrait of Gorgonia. A small mausoleum, first employed for cremation burial and later converted to inhumation, was decorated with a beautiful mosaic depicting on the ceiling Helios (the sun) in a chariot drawn by four white horses, the entire figure a symbol of Christ, the sun of salvation; on the side walls of the mausoleum were represented the Good Shepherd, the Fisher of Souls and Jonah swallowed by the whale. Since these mosaics are patently from a period before Constantine, they are the oldest known Christian examples of such art. Those mausoleums near and under the south side of the high altar of the basilica were partially destroyed by the construction of the *confessio* at the end of the 6th century and partially by the insertion of the foundations for the two south columns of G. L. Bernini's canopy in 1626.

On the ground level south of Constantine's basilica were two massive circular mausoleums, considered for a long time to have been constructed after the basilica itself. When, however, in 1776, the easternmost one was demolished, Gaetano Marini stated that its masonry was from the 2nd century; and later G. B. de Rossi expressed a similar opinion about the other mausoleum. In this latter, Maria, wife of the emperor Honorius, and others were buried. Pope Stephen II (III; 752-57) transformed it into a chapel dedicated to St. Petronilla, whose relics were transferred there by his successor Paul I in 757. Restored by Louis XI of France, it became then the chapel for the French kings. It was chosen by the French cardinal Jean de Villiers de la Groslie for his tomb, and it was for him that Michelangelo carved his famous "Pietà," seen today in the first chapel on the right in the basilica. After the sarcophagus of St. Petronilla was moved to the new basilica, this mausoleum was demolished during the construction of the south transept (1544). The other mausoleum, the one to the east, was transformed by Pope Symmachus (498-514) into the oratory of St. Andrew, with many altars dedicated to various martyrs; it was demolished in 1776, when Pius VI erected the new sacristy.

**The Tomb of St. Peter.**—If one descends today into the open

*confessio* of Paul V, one finds immediately under the high altar a gilded bronze grille, behind which is another of smaller dimensions with a metrical inscription of Innocent III (1198-1216); this latter opens on an oaken slab decorated with a representation of Christ among the apostles in Limoges enamel, part of which is today preserved in the Museo Sacro of the Vatican library. Lower down is the niche of the pallia, with a 9th-century mosaic of Christ flanked by other mosaics of St. Peter and St. Paul. On the floor of this niche rests a silver chest containing the pallia and emblazoned with the coat of arms of Benedict XIV.

This chest stands on a bronze plate, placed there by Innocent X (1644-55), engraved with a cross in the right arm of which is a small lid. In 1892 this lid was opened by H. Grisar, who found that it covered a rectangular shaft, the aperture measuring 8½ in. by 6½ in. The excavations carried out under Pius XII showed that this shaft, once encased in marble, is more than 14 in. deep and opens on a hollow trenchlike tomb in the earth, where the bones, with the exception of the head, of a robust elderly person were subsequently found. This tomb is not at the level of the Roman necropolis, but rather farther north and somewhat higher up the hillside in another inhumation area; some of the surrounding tombs are older than it (for example, a terra-cotta sarcophagus furnished with a libation tube).

Two stairways gave access to this zone from the south, one flanking the west wall of the early 2nd-century mausoleum of the Matucci, the other farther west between two other mausoleums; this latter led through a door to a small open space provided with a brick bench on the east wall. Beneath this stairway, to carry off rain water and to prevent flooding the tombs, was a drain, some of the tiles from which, dating from the years 147-161, bear the factory stamp of Aurelius Caesar and Faustina. To protect the area on its west side, a wall was erected, running north and south. Covered with red plaster, it is called "the red wall"; a portion of it about 25 ft. long was uncovered during the excavations. In this wall, which passes over the west end of the tomb, was an irregular niche, covered by a marble slab. Higher up on the same wall was a second niche, with marble sheathing topped by a Travertine slab; this slab was once supported by two white marble colonnettes 4 ft. 7 in. high, standing in front (that is, east) of the niche and, as is shown by a cut in the bases of the colonnettes, accommodating a marble grille. Finally, above the second niche, was yet a third one, 3 ft. high and 3 ft. 8 in. wide. This decoration above the tomb is an indication that the monument was visited, and it is evidently to it that the priest Gaius referred when, writing in the time of Pope Zephyrinus (c. 199-217), he stated that he could point out the "trophies" of St. Peter and of St. Paul on the Vatican hill and beside the Via Ostiensis, respectively (Eusebius, *Historia Ecclesiastica*, ii, 25).

As a further protective measure, another wall was erected on the north side of this area, which was covered with the graffiti of pilgrims. Soon the zone became filled with other tombs arranged around that under the three niches. But this tomb was the only one among all others that was at the same time an object of veneration and of depredation. From this open tomb were collected more than 1,800 coins from all countries from the time of Augustus to the early part of the reign of Pope Paul V (1605-21); among others, there were 26 from England, dated from the Anglo-Saxon kings of the 7th and 8th centuries to Edward III (1327-77). Among the *ex voto* objects was found a 7th-century gold tablet with a gemmed cross between two eyes. From the tomb the excavations also brought forth traces of fine silver sheeting as well as three thin sheets of lead, undoubtedly used as protection.

This burial monument was encased by Constantine in slabs of precious marbles and was chosen by him as the focal point of his grandiose basilica of five aisles. At the end of the 6th century Gregory the Great raised the sanctuary floor and erected an altar immediately above the tomb monument. This altar, in turn, was enclosed in another constructed by Calixtus II in 1123. Immediately above these two is to be found today the papal altar of Clement VIII. These three altars, one above the other, document in a very special manner the localized veneration paid this tomb throughout the centuries.



**Constantine's Basilica.**—Scholars are not unanimous in assigning a date for the beginning of the construction of Constantine's basilica, opinions varying from the year 326 to the year 333. Because of the difficulties to be overcome in erecting a five-aisle basilica over the tomb of St. Peter, the enterprise must have lasted about 30 years. Besides having to build on a hill that sloped steeply in two directions, from south to north and from east to west, it was also necessary to demolish the Roman necropolis still in use, cutting off the roofs of the mausoleums and the other protruding structures blocking the construction. First, three massive foundation walls were laid on the south side of the hill; one to support the outside wall of the basilica, one to support the columns separating the two left-side aisles and the third to support the left row of columns of the central nave. Then, after smaller walls had been erected, joining many of the mausoleums together for further support, the Roman necropolis was covered up. On the north or higher side, the foundation walls were naturally less extensive and less massive. The excavations of the 1940s brought to light many new characteristics of Constantinian construction work and furthermore showed the error in the supposition, held from the time of Paul V, that the south aisles of the basilica rested on the north walls of the circus of Gaius and Nero. Furthermore, the excavations brought forth no trace of the Via Cornelia, long considered by Roman topographers to have been on the same line as the axis of the basilica.

Constantine's architects were forced also to carry out extensive fillings and levelings in the area around the basilica. From the street level 35 steps led up to a large portico measuring 203 ft. by 184 ft. and supported by 46 columns; entrance to this was provided by three bronze doors. This portico enclosed a garden, called Paradise, with fountains (one of these fountains can be seen today in the courtyard of the Pigna, so called because the fountain is in the shape of a pine cone). In the course of time three small chapels were erected within the area of the portico. That of Sant' Apollinare, constructed by Honorius I (625-638), was demolished during the erection of the new façade early in the 17th century; that of Sta. Maria in Turri was destroyed by fire in 1167; that of Sta. Maria in Febbre was located near the ancient tomb of St. Gregory the Great.

Entrance from the portico into the basilica proper was provided by five portals, called, from left to right, Porta Iudicii, Porta Ravenniana, Porta Mediana or Regia or Argentea, Porta Romana and Porta Guidonea. The interior of the basilica formed a rectangular area divided into aisles by four rows of 22 columns each; the central nave measured nearly 79 ft. across and was 131 ft. high, with marble columns 29 ft. high. Its clerestory, pierced by 11 windows, was richly decorated with frescoes; and Pope Liberius (352-366) added a series of portraits of the popes, to which others were added later under Nicholas III (1277-80). Above this zone were three registers, the highest containing the representations of the patriarchs, of the prophets and of the apostles, the two lower ones containing, on either side of the nave, 46 scenes of the Old and New Testaments. Restored by Gregory IV (827-844) and by Formosus (891-896), these frescoes were repainted by P. Cavallini and by Giotto. The flanking aisles were about 29 ft. wide with columns nearly 20 ft. high; the two inner aisles were 62 ft. in height, while the outer two were 46 ft.

At the head of the central nave was the triumphal arch decorated in mosaic and inscribed in golden letters commemorating Constantine, who was also represented in the mosaics in the act of presenting a model of the basilica to the Saviour; this arch was destroyed in 1525. On the axis of the basilica in the centre of the transept, which was 59 ft. wide, stood the tomb of the apostle Peter, vested in porphyry and in blue-veined marble and with four porphyry columns, and surmounted by a gold cross inscribed with niello letters, the donation of Constantine and his mother Helena. The monument was enclosed in a pergola supported by six white spiral columns from the top of which hung a golden votive crown with 50 lamps in the form of dolphins. The entire monument is depicted on a carved ivory box discovered at Samagher near Pola.

The constructions carried out by Constantine interfered with

the natural drainage from the springs on the slope of the Vatican hill, with the result that water seeped into the tombs located there. Pope Damasus (366-384) tapped these springs to provide water for the baptistery that he erected in the north transept of the basilica. Later Symmachus added there three small chapels dedicated to the Holy Cross, to St. John the Baptist and to St. John the Evangelist.

Under Sixtus III (432-440) the emperor Valentinian added to the embellishment of the apostle's tomb by donating a representation in gold and precious gems of the Saviour in the midst of the 12 apostles arranged in front of the 12 gates of the heavenly Jerusalem. Leo I (440-461), with the help of the senator Rufus Viventius Gallus, repaired the damage done to the monument by the earthquake of 443 and, with the help of the former prefect and consul Marinianus and his wife Anastasia, restored the façade, where in mosaic were depicted the figures of Christ, the Virgin Mary and St. Peter as well as the symbols of the evangelists and below, between the windows, the 24 elders of the Apocalypse. The mosaic was again restored under Sergius I (687-701), who substituted the figure of the Lamb of God for that of Christ, and yet again, much later, under Gregory IX (1227-41). A reproduction of this mosaic is found in an 11th-century manuscript from the abbey of Farfa, preserved today at Eton college, Windsor.

Pelagius II (579-590) was responsible for the construction of the pulpit in the sanctuary. Gregory the Great (590-604), after raising the level of the sanctuary, erected an altar above the tomb leaving visible, through a small window, only the eastern face of the ancient tomb monument. Further, having changed the pergola with its six Constantinian spiral columns for a screen in front of the apse of the basilica, he then excavated and added the semicircular crypt with its block altar. John VII (705-707) added to the basilica the chapel of the Virgin Mary (often called the Praesepe), richly decorated with mosaics; this was demolished in 1606. Gregory III (731-741) added six spiral columns to the existing six in front of the main altar. Stephen II (III) erected the bell tower and remodeled one of the fountains of the atrium, adding eight porphyry columns and a gilded bronze cupola. Leo III (795-816) enlarged the baptistery and donated three porphyry columns. Paschal I (817-824) constructed the chapel dedicated to the martyrs Processus and Martinianus.

The basilica was sacked and pillaged by the Saracens in 846, and Leo IV (847-855) had to repair the damage. Calixtus II (1119-24) erected a new high altar that enclosed the previous one of Gregory the Great, both of them directly above the tomb housed in the Constantinian monument. The basilica underwent further damage in the time of Innocent II (1130-43).

In 1298 the cardinal Giacomo Stefaneschi commissioned Giotto to execute a mosaic for the portico. Often called the "Navicella" ("little boat") of Giotto, it depicted Christ walking on the waters and stilling the storm that was terrifying the apostles in the boat (Matt. xiv, 22-33); today it is to be seen, considerably altered, in the ceiling of the atrium. During the Avignonese period of the papacy, the basilica was neglected, only Benedict XII (1334-42) repairing the roof. Eugenius IV (1431-47) added a new central door in bronze, designed and executed by Filarete (Antonio Averulino); this same door was used for the central portal of the new basilica in 1619.

Although the construction of the new basilica had already begun, Sixtus IV (1471-84) erected a new altar canopy in 1479 embellished with bas-reliefs depicting episodes from the lives of the apostles Peter and Paul; these today can be seen in the *confessio* of Clement VIII.

**The Tombs of the Popes.**—According to the available written sources, the tombs of all the popes down to Victor I (d. 199), with the exception of that of Clement I, were near that of St. Peter. After Victor, the popes were buried in the various cemeteries around the city, burial on the Vatican being resumed only with Leo I. Today, in the corridor leading to the basilica's sacristy, there is a marble inscription naming more than 140 popes buried there, including some who reigned in the 20th century. There are, however, few the remains of whose monuments or tombs have been preserved; many were destroyed by Saracens in 846,

while still more were lost in the sack of Rome in 1527. For some, only the text of the burial inscription has been recorded in the later epigraphic collections. Many such monuments were demolished by Bramante (called by some "the ruinous builder") in the construction of the new basilica; those surviving are preserved in the Grotte Vaticane, where Paul V, from 1606 onward, assembled the material left over from the old basilica. In the Grotte are also the tombs or the monuments of Gregory V (996-999), Adrian IV, Nicholas III, Boniface VIII, Urban VI, Innocent VII, Nicholas V, Julius III, Marcellus II and Innocent IX, as well as the tombs of some later popes, for instance Innocent XIII, Benedict XV and Pius XI. After the excavations of the 1940s the remains of the monument of Paul II and Antonio Pollaiuolo's grandiose bronze monument of Sixtus IV were transferred there, together with certain remains from the old basilica previously preserved in Benedict XV's Museo Petriano (no longer existing). In the Grotte are also the monuments of the emperor Otto II, who was interred in the atrium in 983; of Charlotte de Lusignan, queen of Cyprus (d. 1487); of Christina of Sweden (d. 1689); and of "Henry IX," the last of the Stuarts (the cardinal duke of York).

In the old basilica, moreover, were buried certain kings and princes who died while on pilgrimage at Rome: for example, Ceadwalla of Wessex (d. 689); Coenred of Mercia and Offa the son of Sigehere of Essex, who together entered one of the monasteries nearby (c. 709); and Ine of Wessex.

During the construction of the new basilica, many inscriptions and sarcophagi were removed from the area under the old Constantinian one; and the excavations of the years 1941-49 showed that the area under the ancient basilica was occupied not only by sarcophagi but also by other tombs in masonry covered with tiles or with marble. The more important sarcophagi and inscriptions from this area were all removed to the Grotte Vaticane. It may be remarked that the floor level of the Grotte is the same as that of the ancient Constantinian basilica, that of the new basilica being more than ten feet higher up.

**The Monasteries.**—To provide choir service at St. Peter's four monasteries were founded in the course of time around the basilica. The oldest, dedicated to SS. John and Paul and first mentioned during the time of Leo I, was located on the north side of the basilica; its remains were seen during the construction of the north side of the transept of the new basilica. The second, dedicated to St. Martin, was situated under the southwest pilaster of the cupola, where today is the statue of Veronica. The third monastery, that of St. Stephen Major, called also *cata Galla Patricia*, is found today behind the apse of the new basilica; its church, restored on various occasions from the time of Leo III, was called also St. Stephen of the Moors or Abyssinians. The fourth was that of St. Stephen Minor, founded by Stephen II (III); it later became the hospice for Hungarians, but it was demolished in 1776 during the construction of the new sacristy. After the 11th century these monasteries became residences for the canons of the basilica; finally Nicholas III erected a residence for the canons on the south side of the basilica on the site of the present one. The site of a fifth monastery, the Jerusalem, probably housing a convent of nuns, may be supposed to have been near the oratory of the same name founded by Symmachus.

**The Diaconiae.**—From the time of Symmachus small edifices for the care of the poor were constructed on the south side of the basilica; they were subsequently restored by Sergius I, by Gregory III and by Leo III. Bathing facilities were also provided nearby. Continuing the care of the poor, the diaconiae (deaconries) were established. The first was that of SS. Sergius and Bacchus, situated on the north side of the basilica and located in the Palatium Caroli. Another diaconia was that of St. Mary, called *in caput Portici* (being at the head of the portico that led from the Tiber to the basilica). Stephen II (III) also erected a hospice there (where today the obelisk stands); but under Pius IV this hospice was demolished, as also was the third diaconia, called St. Silvester and recorded from the 8th century. The fourth diaconia was first called *in Hadrianum* because of its nearness to the mausoleum of Hadrian (Castel Sant' Angelo) and later Sta. Maria in Traspontina; it occupied a site somewhat east of that of the existing

church of Sta. Maria in Traspontina and lasted till the 15th century. The fifth diaconia, that of St. Martin *de Curtina* or *juxta Porticum*, was located near the second and third ones; it disappeared in the 17th century.

**The Scholae for Pilgrims.**—Around the basilica were erected *scholae* or hospices for pilgrims, who could find lodging and clergy from their native lands there. The oldest hospice was the *schola Saxonum* for the English, which was founded, according to Matthew of Paris, by King Ine of Wessex c. 727-730 or, according to William of Malmesbury, by King Offa of Mercia at the end of the 8th century; and the entire vicinity of the present church of San Spirito in Sassia was called *burgus Saxonum*. This hospice was destroyed by fire under Paschal I and again under Leo IV; both incidents were depicted by Raphael in the *stanze* of the Vatican palace. The *schola Francorum* or hospice for the Franks was on the site now occupied by the oratory of St. Peter and by the palace of the Holy Office; its chapel was called S. Salvatore de Ferrione. Later, for German and Flemish pilgrims, Sta. Maria in Campo Santo and the *schola Teutonum* were erected. The *schola Longobardorum*, for the Lombards, is said to have been founded c. 770 by Ansa, the wife of King Desiderius; attached to it was the church of St. Justin. The present chapel of SS. Michele e Magno is all that remains of the *schola Frisonum*, for the Frisians, at the upper left part of Bernini's colonnade. Near the present entrance to the sacristy was the hospice for the Hungarians, founded at the beginning of the 11th century in the buildings of the older monastery of St. Stephen Minor, called also *de Agulia* (with reference to the Vatican obelisk nearby).

**The Leonine City.**—The emperor Lothair I, immediately after the Saracen invasion of 846, wanted to construct a fortified wall around the basilica of St. Peter; but work on it actually began under Pope Leo IV. Lasting through his reign, much of the work was done by Saracen prisoners. Extending for 2½ Roman miles, this wall numbered 48 towers and 3 gates, inscriptions from which are preserved in fragments and in epigraphic collections. Later, Innocent III constructed another fortified wall within the perimeter of the older one. One of the defensive towers from this wall was identified in 1947; about 87 ft. high, this tower had been incorporated in the construction of Nicholas III's palace.

**The New Basilica.**—The idea of a new basilica was first conceived by Pope Nicholas V (1447-55), prompted by the state in which he found the old one. The architect Leon Battista Alberti observed that its south wall was leaning 5 ft. 9 in. out of the perpendicular; and the frescoes on the south side of the central nave, leaning by 3 ft. 7 in., were covered with dust. In 1452, then, Nicholas V ordered Bernardo Rossellino to begin the construction of a new apse west of the old one, but the work stopped with the pope's death. Paul II, however, entrusted the project to Giuliano da Sangallo in 1470. Sixtus IV ordered the erection of a new baldachin (canopy) over the high altar, the bas-reliefs of which are preserved today in the Grotte.

On April 18, 1506, Julius II laid the first stone for the new basilica. It was to be erected in the form of a Greek cross according to the plan of Donato Bramante, who began the demolition of the old basilica, laying the foundations for the four pilasters of the cupola, saving, however, the apse and main altar. On Bramante's death (1514), Leo X commissioned as his successors Raphael, Fra Giovanni Giocondo and Giuliano da Sangallo, who modified the original Greek-cross plan to a Latin one with three aisles separated by pilasters. Also active at this stage were the architects Antonio da Sangallo (the elder), Baldassare Peruzzi and Andrea Sansovino. After the sack of Rome in 1527 Paul III (1534-49) entrusted the undertaking to Antonio da Sangallo (the younger), who returned to Bramante's plan and erected a dividing wall between the area for the new basilica and the eastern part of the old one, which was still in use.

On Sangallo's death (1546) Paul III commissioned Michelangelo Buonarroti as chief architect for the task. Although criticized by many for a lack of flexibility in the execution of his plans, Michelangelo was confirmed in his position by Julius III (1552) and by Pius IV (1561). At the time of his death in 1564 the drum for the massive cupola was practically complete. He was succeeded

by Pirro Ligorio and by Giacomo Barozzi, called Vignola. Gregory XIII (1572-85) placed Giacomo della Porta in charge of the work. The dome was finally completed at the insistence of Sixtus V (1585-90), who was also responsible for moving the Egyptian obelisk to the centre of the piazza in front of the basilica in 1586, a task directed by Domenico Fontana. Gregory XIV (1590-91) ordered the erection of the lantern above the cupola.

The pavement of the new basilica was laid at a level more than ten feet above the old one. Clement VIII (1592-1605) demolished the old apse and erected the new high altar over the altar of Calixtus II. Paul V (1605-21) adopted Carlo Maderno's plan of giving the basilica the form of a Latin cross by extending the eastern arm. With the completion of the work in 1615, the new edifice measured 613 ft. in length; the atrium, 233 ft. long, 42 ft. wide and 65 ft. high, contained Giotto's "Navicella." The façade is 377 ft. long and 151 ft. high. In front of the high altar, the work of Maderno and Martino Ferrabosco, Paul V opened a large *confessio* covered with coloured marble and decorated with bronze statues of the apostles Peter and Paul. Urban VIII (1623-44) entrusted Giovanni Lorenzo Bernini, the successor of Maderno, with the execution of the new canopy; in gilded bronze, it is 92 ft. high and 186,392 lb. in weight, with columns modeled after the earlier Constantinian ones (much of the bronze was taken from the beams in the atrium of the Pantheon). Bernini was also responsible for the embellishment of the four huge pilasters on the sides toward the high altar; the lower registers contain four niches with statues of St. Longinus (by Bernini), St. Helena (by A. Bolgi), St. Veronica (by F. Mocchi) and St. Andrew (by F. Duquesnoy). Above are four loggias containing eight of the ancient spiral columns from the sanctuary of the old basilica. In 1637 the bell tower was begun, but the resulting construction was demolished in 1641 for technical reasons.

The marble decoration of the interior, as well as the medallions representing the first 40 popes and 28 allegories of virtues, were ordered by Innocent X (1644-55) and executed by Bernini. The same architect, commissioned by Alexander VII (1655-67), designed and erected the two semicircular colonnades; they consist of 284 columns of Travertine placed in four rows and surmounted by a balustrade on which are 140 statues of martyrs and confessors. At the same time Bernini also executed the bronze throne (chair) in the apse resting on statues of two Latin doctors of the church, St. Augustine and St. Ambrose, and two Greek doctors, St. Athanasius and St. John Chrysostom. He also erected the fountain to the left of the obelisk, substituting it for the one placed there by Innocent VIII; the other fountain was the work of Carlo Fontana, commissioned by Clement X in 1670.

In the pavement of the central nave are indicated the comparative lengths of the world's largest churches, all less than that of St. Peter's.

**The Papal Palaces.**—From the 4th century until the Avignonese period (1309-76) the customary residence of the popes was at the Lateran. On the Vatican, Pope Symmachus erected two episcopal residences, one on either side of the basilica, to be used for brief stays and certain functions in the church. On the north side of the basilica Charlemagne constructed the Palatium Caroli to house his subjects during their visits to Rome. Other edifices were added by Leo III and later by Eugenius III (1153); modernized by Innocent III, they received added protection in the form of a second fortified wall within that of Leo IV. Remains of the towers of this wall have been found in the Vatican gardens, in the large hall of the palace (chapel of Nicholas V), in the rooms flanking the courtyard of the Pappagallo and beneath the Sala Ducale.

Nicholas III, who began the first of the many edifices known today under the name of papal palaces, built a palace decorated remains of which have been discovered on two levels: in the Sala dei Paramenti, in the Sala della Falda, in the Sala dei Pontefici and in the Cubicolo di Niccolò V for the first floor and in the halls of the Chiaroscuri and of Constantine for the second. Rectangular in form, its chapel occupied the same position as the present Sistine chapel, and its gardens covered the area where today is the courtyard of the Belvedere. Nicholas V rebuilt the north and west

walls of the palace of Nicholas III, adding also the fortified bastion called after him. He also founded the Vatican library, making use of the services of the architects Leon Battista Alberti, Bernardo Rossellino, Aristotele di Fioravante, Giacomo da Pietrasanta and Antonio di Francesco. For the same pope Giovanni da Fiesole, better known as Fra Angelico, painted the stories of St. Stephen and St. Lawrence in the chapel of Nicholas V. Paul II constructed the stairway to the right of the archway from the courtyard of the Pappagallo to that of S. Damaso.

Under commission from Sixtus IV, Giovanni dei Dolci carried out the construction of the Sistine chapel, embellished with the paintings of Perugino, Pinturicchio, Ghirlandaio, Botticelli, Signorelli and others. He also remodeled and decorated the Vatican library. Innocent VIII (1484-92) rebuilt the lower palace between the basilica and the courtyard of the Maresciallo and also erected the small palace of the Belvedere on the north edge of the hill (its chapel of St. John the Baptist, decorated by Mantegna, was later demolished to make room for the gallery of statues put up under Clement XIV and Pius VI). Alexander VI (1492-1503) constructed the Borgia tower on the northwest side of the palace and remodeled the rooms on the north flank, called the Borgia apartments. Under Julius II (1503-13), Bramante completed the north façade, two of the so-called *logge* (to which Raphael added a third) and the extensive corridor occupied today by the Chiaramonti and inscription galleries. Julius also commissioned Michelangelo to paint the ceiling of the Sistine chapel (1508-12) and Raphael to decorate the rooms of the Signatura and of Heliodorus. Under Leo X (1513-21), Raphael painted the loggia overlooking the courtyard of the Maresciallo, restored in 1943, as well as the bath of Cardinal Bibbiena. At the same time the small palace flanking the north side of the *logge*, considerably altered under Paul V, was erected.

To the period of Clement VII (1523-34) belongs the bath in the edifice next to the papal stairs. Under Paul III, Antonio da Sangallo (the younger) erected the Sala Regia, the Pauline chapel, the *logge* in the courtyard of the Maresciallo and the bastion on the northwest corner. The painters Giorgio Vasari, Taddeo Zuccaro, the two Della Porta and Daniele da Volterra decorated the Sala Regia; Michelangelo painted his "Last Judgment" (1535-41) in the Sistine chapel, as well as episodes from the lives of St. Peter and St. Paul in the Pauline chapel (1542-50). Pius IV (1559-65) completed the west side of the corridor of the Belvedere and erected the Casino of Pius IV in the gardens, his architects being Pirro Ligorio and Giovanni Salustio Peruzzi; today this edifice is the seat of the Pontifical Academy of Sciences. From the time of Pius V (1566-72) are the three chapels of St. Stephen, of St. Peter and of St. Michael, embellished with paintings by Vasari and with stuccoes by Giacomo della Porta, and also the chapel of the Swiss guards painted by Giulio Mazzoni and Daniele da Volterra. Gregory XIII (1572-85) was responsible for the wing closing the north side of the present courtyard of S. Damaso, containing rooms decorated by Antonio Tempesta and Mathys Bril; for the famous Gallery of Maps, designed by Ottaviano Mascherino, with maps of the regions of Italy proposed by the Dominican friar Ignazio Danti; and for the observatory in the Tower of the Winds, with pictures by Niccolò dalle Pomarance and by M. Bril.

The present papal residence along the eastern side of the courtyard of S. Damaso was erected in the time of Sixtus V (1585-90) by Domenico Fontana, who also constructed a new wing for the Vatican library with the Sala Sistina, thereby cutting in half the Belvedere courtyard. Under Clement VIII (1592-1605) Giovanni and Cherubino Alberti decorated the Clementine hall, while Paul Bril undertook the painting of the Hall of the Consistory; the main entrance to the palaces was rebuilt with the addition of the bronze doors, executed by Martino Ferrabosco and Giacomo Vasanzio; and the building that flanks the Street of the Museums, the halls of the Museo Profano and the fountains of the Specchi, the Torri and the Scoglio (all three in the gardens) also date from this pontificate. Urban VIII (1623-44) constructed the Hall of Countess Matilda, today called the Matilda chapel, decorated by Pietro da Cortona. Under Alexander VII (1655-67),



Bernini constructed the Sala Regia, uniting it with the Sala Ducale. Clement XII (1730–40) added a new wing to the Vatican library, and his successor Benedict XIV joined the Museo Sacro or Christian museum to the library. Clement XIII (1758–69) erected the Gallery of the Candelabra.

Clement XIV (1769–74) and Pius VI (1775–99) were responsible for the construction of the Pio-Clementine museum; this complex includes the Porch of the Four Doors, the Simonetti stairway (named after the architect Michelangelo Simonetti), the Hall of the Greek Cross, the Rotonda, the Hall of the Muses, the Hall of the Animals, the Octagonal courtyard, the Room of the Busts, the Cabinet of Masks and the uncovered loggia. Pius VII (1800–23) founded the Chiaramonti museum and the new wing that intersected the Belvedere courtyard. Under Gregory XVI the Gregorian, Etruscan and Egyptian museums were erected at the north end of the courtyard of the Pigna. Pius IX (1846–78) constructed the magnificent stairway leading up from the bronze doors to the courtyard of S. Damaso and opened, in the Borgia tower, the Hall of the Immaculate Conception, decorated by Francesco Podesti. Leo XIII (1878–1903) added the Gallery of the Chandeliers, painted by Ludwig Seitz and others; he also founded the Vatican observatory in one of the towers of the Vatican gardens. Pius X (1903–14) constructed the underground passage between the corridor of Bramante and the gardens, as well as the stairway between the Viale del Belvedere and the courtyard of the Holy Office. He also located the Pinacoteca in the west wing of the Belvedere corridor.

The activities of Pius XI (1922–39) were many and varied. He erected the radio station in the gardens and the new seat of the Pinacoteca with its entrance formed of a double spiral ramp; added a hall to the Casino of Pius IV; renovated the Vatican library; rearranged the gardens; constructed the governor's palace; and erected the edifices housing the post office, the tribunals, the railroad station, the mechanical centre and the studio for the restoration of art works. After the signing of the Lateran treaty, he remodeled Castel Gandolfo and moved the observatory there. Pius XII (1876–1958) renovated the offices of the secretariat of state, founded the television station and restored the Vatican palaces. A new and more powerful radio station, near Sta. Maria di Galeria, was dedicated by Pius XII at the end of 1957.

**The Vatican Library.**—From the ancient library of the popes at the Lateran nothing remains except the registers of Innocent III, some inventories for the years 1295, 1327 and 1339, others for the Avignonese period and the *Borghesiana* codices. Although a new library had been developing since the time of Eugenius IV, the true founder of the Vatican library was Nicholas V. Its first permanent seat was in the palace of Nicholas V, located there by Sixtus IV according to a plan made by Bartolomeo Platina. Sixtus V erected the present seat of the library in the courtyard of the Belvedere between 1587 and 1589. Considerably enriched during the 17th and 18th centuries, the library suffered severely when numerous manuscripts and incunabula were transported to France at the end of the 18th. Leo XIII gave the library its famous consultation hall, and Pius XI was responsible for its modernization. The library contains about 60,000 manuscripts, 7,000 incunabula, 100,000 engravings and maps and more than 700,000 printed books. In 1952 it received through the generosity of Francis Cardinal Spellman the only copy in Europe of the Princeton *Index of Christian Art*, begun by Charles Rufus Morey in 1917.

**The Vatican Archives.**—Founded in 1612 by Paul V, the Vatican archives contain the acts and documents relative to the government of the church. Leo XIII made these documents available to interested scholars. With it is connected the school of paleography, diplomatic and related sciences, founded by Leo XIII in 1884.

**The Medal and Coin Collection.**—After the loss in 1798 of the collection of coins and medals from the museums of Benedict XIV and Clement XII, a new collection was begun and enlarged by the acquisition of other collections. Pius XII enriched this with the coins found during the excavations of the 1940s.

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*Das vatikanisches Archiv*, 2nd ed. (Rome, 1951); J. S. Ackerman, *The Cortile del Belvedere* (Vatican City, 1954). (E. J.L.)

**VATICAN CITY STATE**, the name created for the territory in Rome (area 17 sq.mi., pop. [1959 est.] 1,000) belonging to the Holy See by the Lateran treaty, signed by Cardinal Gasparri, on behalf of the pope, and by Benito Mussolini on behalf of the king of Italy, on Feb. 11, 1929. See PAPACY: *The Papacy in the International Crisis, From 1914*; ITALY; VATICAN, THE.

**VATICAN COUNCILS**, the two most recent ecumenical councils of the Roman Catholic Church.

**First Vatican Council.**—The first Vatican council was convened in 1869 and prorogued in 1870; it was never formally dissolved. Its principal achievement was the decree *Pastor aeternus*, asserting the infallible authority of the pope in matters of faith and morals.

Since the Council of Trent (1545–63), no general council had assembled. In the meantime the rise of rationalism, liberalism and materialism had brought forth systems of thought that denied such fundamental Christian dogmas as the possibility of divine revelation, the existence of God and the immortality of the soul. The desire for a condemnation of these errors and the need for a reform of church law were the principal motives that led Pope Pius IX to begin in 1864 to prepare for a general council. The critical political situation in Europe, and particularly in Italy, seemed to offer but little hope for a successful council, but thanks to the presence of French troops in Rome and to the indifference of the powers, Pius IX was able not only to prepare and assemble the council but also to carry through some important actions between the close of the Seven Weeks' War between Prussia and Austria (1866) and the occupation of Rome by the forces of Victor Emmanuel II (1870).

The formal summons to the council was issued on June 29, 1868. At the outset the prospect of a council was greeted with joy by Catholics and with benevolent neutrality by Protestants. But not long after the official convocation, manifestations of discontent were observed, particularly in Germany, France and England, where a statement of the papal prerogatives was foreseen and feared. Although the Catholic teaching on this subject had formerly provoked opposition in Gallican and Febronian circles (see GALLICANISM), papal infallibility was looked upon by a majority even of the French episcopate as a truth revealed by God. But the opportuneness of defining it (stating it precisely and making it obligatory doctrine for the whole church) was an open question. It soon became obvious, however, that the question of papal infallibility was destined to dominate the council.

The occasion of the controversy was a communication from France that appeared in the Feb. 1869 issue (series vii, vol. v, pp. 345 ff.) of the *Civiltà Cattolica*, organ of the Italian Jesuits. The writer divided the French Catholics into those who were simply Catholics (*Cattolici semplicemente*) and those who were liberal Catholics (*Cattolici liberali*). He stated that the former formed the great majority of the Catholics of France and would welcome the proclamation of papal infallibility.

Thereupon a series of articles (afterward published in book form as *Der Papst und das Konzil* ["The Pope and the Council"]), angrily attacking the doctrine of papal infallibility, appeared in the Augsburg *Allgemeine Zeitung*. The author disguised his identity under the pen name of Janus but was apparently J. J. I. von Döllinger (q.v.), one of the leading Roman Catholic historians of Germany. The Bavarian foreign minister, acting under Döllinger's influence, tried to induce the powers to take concerted action to prevent the definition, but his efforts were futile. In France bishops H. L. C. Maret and Félix Dupanloup wrote against the definition of papal infallibility, and answers appeared from the pens of Archbishop Henry Edward Manning (q.v.) in England, of Archbishop Adolphe Dechamps in Belgium and of Joseph Hergenröther of Würzburg (*Anti-Janus*, 1870). German opinion was particularly agitated, and 14 of the 22 German bishops thought it advisable to warn Pius IX that a definition of papal infallibility was inopportune. The consequence of this controversy was that before the council began, the fathers (cardinals, archbishops, bishops, abbots and generals of orders) were already divided into two



groups: those for the definition and those against it. Archbishop Manning was the leader of the former group, Bishop Dupanloup of the latter.

**Organization.**—In 1865 Pius IX named a commission of cardinals, known as the central commission, to direct the preparations for the council. The central commission named subsidiary commissions on faith and dogma, on ecclesiastical discipline and church law, on religious orders, on oriental churches and foreign missions, on politico-ecclesiastical affairs and relations of church and state, and on rites. In all, these subcommissions comprised 102 members, of whom 10 were bishops, 69 secular priests and 23 religious priests. Their labours were conducted in the greatest secrecy. They resulted in 51 schemata (proposed decrees), carefully prepared for the consideration of the fathers of the council.

The Vatican council was formally opened by Pius IX on Dec. 8, 1869. Of the 1,055 fathers who had a right to vote, 774 eventually appeared.

The schemata were discussed in general congregations of the fathers. In order to facilitate the work of the congregations, four permanent committees were established. Of these, the most important was the Committee on Faith, from which the leaders of the majority endeavoured to exclude any member of the minority opposed to a pronouncement on papal infallibility. In so doing they were acting against the wishes of the pope, who would have welcomed the choice of Bishop Dupanloup, and according to those of Archbishop Manning, who said, "Heretics come to a council to be heard and condemned, not to take part in formulating doctrine." The bishops of the minority could of course defend their position in the general congregations, but it was inappropriate that a group comprising so many learned and distinguished men should have little or no representation (a member of the minority had been included by mistake) on the most important committee.

**Decree "Dei Filius."**—The debates on the first schema, "On Catholic doctrine against the errors stemming from rationalism," opened on Dec. 28, 1869. After lively and sometimes violent discussions, occupying 23 general congregations, the decree *Dei Filius* was unanimously voted on April 24, 1870. The first chapter treats of God, who has of his goodness and by his almighty power created all things, who foresees all things and who by his providence protects and governs all things. The second chapter declares that God, the beginning and end of all things, can, from created things, be known with certainty by the natural light of reason; it then treats of the necessity and existence of supernatural revelation. The third chapter treats of faith, its reasonableness, supernaturalness and necessity. The fourth chapter treats of the relations of faith and reason: although faith is above reason, there can never be any real discrepancy between them since God, who reveals mysteries, is also author of reason.

**Infallibility.**—From the beginning of the council the question of papal infallibility had been an issue. No provision had been made for a discussion of this thorny question, but since the majority of the bishops desired the definition the matter could not be excluded from the agenda.

On Dec. 23, 1869, Archbishop Dechamps, Archbishop Manning and others launched a campaign to define papal infallibility. This initiative was successful, and soon more than 500 of the fathers had subscribed to the plea. The petitions of the minority opposed could muster only 136 names. As a result a chapter on papal infallibility was added to the schema "The Church of Christ." On April 27, 1870, it was decided to take up immediately the discussion of this additional chapter, which was transformed into a separate decree. Under threat of interference from the powers, the council worked feverishly, holding between May 13 and July 16, 1870, no fewer than 37 general congregations.

The minority alleged many arguments against the opportuneness of the definition and also against the doctrine itself. The majority defended papal infallibility with great vigour, maintaining that the doctrine was clearly contained in both Scripture and tradition, that the historical difficulties alleged were not decisive and that the power of bishops and general councils would not be destroyed by the definition. After various alterations in the text of the schema, the definitive ballot was taken in the 85th general congregation

on July 13, 1870. Of 601 who were present, 451 voted in favour of the decree, which is known as *Pastor aeternus*. Of the other 150, 62 accepted it on condition that certain alterations be made, and 88 rejected it. Of the 88, only 15 were opposed to the doctrine itself. On Monday, July 18, 1870, one day before the outbreak of the Franco-German War, 535 fathers assembled in St. Peter's under the presidency of Pius IX and the last vote was taken: 533 fathers voted *placet* ("aye"), and only two, Bishop Aloisio Riccio of Cajazzo in Italy and Bishop Edward Fitzgerald of Little Rock, Ark., voted *non placet*. The pope immediately promulgated the dogma.

The decree *Pastor aeternus* teaches that St. Peter had a true primacy of jurisdiction over the universal church and that this primacy passed to his successors, the bishops of the see of Rome; that accordingly the Roman pontiff enjoys full and supreme power of jurisdiction over the whole church; that he has the right of free communication with the pastors of the whole church and with their flocks; and that the primacy of the Roman pontiff includes the supreme teaching power to which Jesus Christ added the prerogative of infallibility:

When, in the exercise of the office of pastor and teacher of all Christians, the Roman pontiff by virtue of his supreme apostolic authority teaches definitively that a doctrine concerning faith or morals is to be held by the universal church, he is, through the divine assistance promised to him in St. Peter, possessed of that infallibility with which the divine Redeemer willed his church to be endowed.

After the discussion on infallibility the fathers were permitted to leave Rome for a few months. Before they could return, the Piedmontese troops occupied Rome. On Oct. 20, 1870, Pius IX prorogued the council indefinitely. It had completed only a small fraction of the work planned.

**Results of the Decree "Pastor Aeternus."**—Within a few years all the members of the episcopate who had opposed the definition signified their acceptance of the conciliar decision. In Germany, however, a number of priests and professors decided to resist the Vatican decrees, and their move was imitated in other countries. This led to the formation of the Old Catholic Church, which at one time numbered over 150,000 members in Germany, Switzerland, Austria, the Netherlands and other countries (*see* OLD CATHOLICS). These losses to the church were offset, however, by its gain in the council's clear and unequivocal statement on the nature of the papacy. The controversy that had arisen at the Council of Constance (1414–18) regarding the superiority of the council over the pope was now definitely settled. Gallicanism and Febronianism were finally banned, and the union of all Catholics with the Roman pontiff was greatly strengthened. Apart from the defection of the Old Catholics, the fear of losses to the church expressed at the council was not realized. Later popes have made little use of the defining power, the one certain instance being the definition by Pope Pius XII in 1950 of the dogma of the Assumption of the Blessed Virgin Mary into heaven. Furthermore, there is no indication that the power of the bishops has been diminished. Some, indeed, hold that practically it has increased. (*See* also COUNCIL: *Vatican Council* (1869–70); INFALLIBILITY.)

**Second Vatican Council.**—In Jan. 1959 Pope John XXIII made the unexpected announcement that he intended to summon a general council, the first since the Vatican council of 1869–70. On May 6, 1959, an antepreparatory commission was set up to gather suggestions for discussion. Requests for agenda were sent to all bishops, superiors of religious orders and to the theological faculties of Catholic universities. About 75% of those polled responded, and their answers filled 12 large volumes, which have been called an encyclopaedia of ecclesiastical self-criticism. Ten preparatory commissions and two secretariats edited these documents and prepared drafts of decrees.

When the council actually got under way, these preparations were subjected to criticism, some prelates saying that much of it was so inexpertly done that it had to be redone. An immense amount of excellent but uneven and heterogeneous materials had been gathered, but they were so presented that a huge assembly like the council was ill equipped to deal with them.

In the meantime Pope John had announced in his 1961 Christmas message that the council would open in 1962, and on Feb. 2,

1962, he fixed Oct. 11, 1962, as the opening day. Approximately 2,900 bishops and superiors of religious orders had been invited, and of these 2,540 were on hand for the opening session, making this the largest council in history, with the exception of the Council of Constance (1414-18), and the largest in number of bishops attending.

The bishops came from nearly every part of the world, but there were none directly from China and only 49 from countries behind the "iron curtain." In addition to the theological assistants of the bishops and superiors of the orders, 200 officially appointed experts were on hand. More than 40 observers from other Christian churches were present, and nearly 80 nations were represented by special diplomatic missions.

John XXIII made it clear in his inaugural address in St. Peter's basilica that he was optimistic not only about the success of the council but also about the future of the church. He warned the members not to listen to prophets of evil who consider everything in the present wrong and in the future look forward only to disaster. The church, he said, must never forget the deposit of faith but must be ready to explain it in a manner that suits the times and will make it live in the hearts of the faithful. He insisted that the present-day church in opposing errors must use the medicine of compassion rather than severe anathemas. In this way, he hoped, unity among Catholics themselves would be strengthened while union—in prayer with other Christians and in mutual respect with non-Christians—would be advanced.

Stress on the pastoral and positive approach by the pope gave the tone to the deliberations of the council, which in the short period of its first session, between Oct. 11 and Dec. 8, 1962, accomplished much: 36 general congregations were held in 58 days; 33 ballots were taken on procedure and conciliar issues; 587 speeches were made and 523 observations were submitted in writing. Five projects were debated: liturgy, sources of revelation, communications media, church unity and the nature and organization of the church. Greatest progress was made on the liturgy: indeed, the first chapter of the decree on that subject was adopted on Dec. 7.

On the other hand, the decree that had been prepared on the sources of revelation (Holy Scripture and tradition) was the subject of heated debate and Pope John ordered a new formula composed. The decrees on church unity and on the media of communications were accepted in principle but were sent to committee for reworking. The decree on the church was the subject of solid and serious debate, although there was no time for a vote on it.

The council did not escape the charge, leveled also against other western councils, that a goodly proportion of its membership was hostile to the Roman curia, the central administration of the church. This feeling was inevitable and probably had some foundation. The council, however, when it closed, would have to rely principally on the curia for the execution of its decisions.

The first session of the second Vatican council undoubtedly enjoyed greater freedom than any western council (Constance again excepted) had enjoyed. But when on Dec. 8, 1962, the council adjourned, the fathers showed that they were aware of the need of stronger leadership. On Dec. 6, unprecedented norms for continuing the work during the recess were announced. A new central commission, headed by Amleto Cardinal Cicognani, the papal secretary of state, was created to direct and co-ordinate the council's work and the work of the commissions that would be set up after the council to handle special cases and disputes. Provision was also made for re-examination of the projects already prepared. Pope Paul VI, shortly before his coronation, announced that the council would be reconvened on Sept. 29, 1963.

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**VATTEL, EMERICH DE** (1714-1767), Swiss jurist whose reputation rests chiefly upon his treatise on international law, was born at Couvet, in the principality of Neuchâtel, April 25, 1714. The treatise, he frankly confessed, was not an original work but a popularization of a volume published in 1749 by the German philosopher Christian Wolff and entitled *Jus gentium*. Vattel's own work, published in 1758, bears the title *Le Droit des gens* ("Law of Nations"), with the subtitle "Principles of Natural Law Applied to the Conduct and Affairs of Nations and Sovereigns." Vattel died at Neuchâtel on Dec. 28, 1767.

Vattel's analysis of international law is elaborate and complex. He explicitly rejects Wolff's conception of a commonwealth of nations, a world state having authority over its component members; in its place he substitutes rights and obligations derived from the law of nature, which he holds to be binding upon nations as upon their individual citizens. Where the inference from the law of nature is clear, the rights and duties are absolute; where the inference is not clear, each state must be allowed to judge for itself the extent of its obligations, with the result that many of Vattel's conclusions are no more than his personal interpretations of the proper conduct of sovereigns.

In spite of its logical weaknesses, Vattel's treatise exercised great influence over the development of international law, especially in the United States, where it was quoted not only by secretaries of state but also by federal judges in cases involving international law. His wealth of illustrations came to serve as precedents, and his liberal and humanitarian principles were readily adaptable to the policy of a democratic state. The principles of liberty and equality that he had absorbed in his native country fitted well into the ideals of the Declaration of Independence. Particularly his defense of neutrality and his detailed rules upon commerce between neutrals and belligerents proved to be of service to U.S. statesmen.

Translations of Vattel's work appeared almost immediately after its publication, the translation by Joseph Chitty being perhaps the best known. In 1916 the Carnegie Endowment for International Peace published a photographic copy of the original text of 1758, with an introduction by Albert de Lapradelle and a new translation by C. G. Fenwick.

See Charles G. Fenwick, "The Authority of Vattel," *American Political Science Review*, 7:395 (1913), 8:375 (1914); Arthur Nussbaum, *Concise History of the Law of Nations*, rev. ed. (1956). (C. G. Fk.)

**VAUBAN, SEBASTIEN LE PRESTRE DE** (1633-1707), marshal of France, was born at St. Léger-Vauban (Yonne). At 17 he joined the regiment of Condé in the war of the Fronde and, after declining a commission, was employed in fortifying Clermont-en-Argonne. Soon afterward he was taken prisoner and became a devoted servant of the king. He then besieged and took his own first fortress, Clermont, and in May 1655 became an *ingénieur du roi*. In the years that followed Vauban improved or rebuilt various fortresses and in 1669 drew up his *Mémoire pour servir à l'instruction dans la conduite des sièges*, published in 1740. On the renewal of war with Holland in 1672 Vauban conducted several sieges. His introduction of a systematic approach by parallel lines dates from the siege of Maestricht (1673) and it soon became the standard method of attacking a fortress (see **FORTIFICATION: Permanent Fortifications**). At Saarlouis for the first time appeared Vauban's "first system" of fortification. In 1682 his "second system," with modifications designed to prolong the resistance of the fortress, began to appear. In 1687 Vauban chose Lan-