

quently 1100 millions, or nearly four-fifths, have been consumed in the arts, lost, &c., or exported to Asia. There are estimated to be about 50 or 60 million pounds sterling worth of silver coins in India,¹ and some trifling amounts each in China, Japan, Persia, &c. On the whole it appears quite safe to estimate the average annual consumption of silver in the arts and through wear, tear, and loss as fully equal to three-fourths of the production. Lowe in 1822 estimated it at two-thirds. Silver is principally used for plate and jewellery; it is also consumed in photography, and in numerous chemical preparations, such as lunar caustic, indelible ink, hair dyes, fulminating powder, &c.

(A. DE.)

SILVERIUS, the successor of Pope Agapetus I., was a legitimate son of Pope Hormisdas, born before his father entered the priesthood. He was consecrated on June 8, 536, having purchased his elevation to the see of St Peter from the Gothic king Theodotus. Six months afterwards (Dec. 9) he was one of those who admitted Belisarius into the city. He opposed the restoration of the patriarch Anthimus, whom Agapetus had deposed, and thus brought upon himself the hatred of Theodora, who desired to see Vigilius made pope. He was deposed accordingly by Belisarius in March 537 on a charge (not improbably well founded) of treasonable correspondence with the Goths, and degraded to the rank of a simple monk. He found his way to Constantinople, and Justinian, who entertained his complaint, sent him back to Rome, but Vigilius was ultimately able to banish his rival to Pandataria, where the rest of his life was spent in obscurity. The date of his death is unknown.

SILVESTER I., bishop of Rome from January 314 to December 335, succeeded Melchisedes and was followed by Marcus. The accounts of his papacy preserved in the *Liber Pontificalis* (7th or 8th century) and in Anastasius are little else than a record of the gifts said to have been conferred on the Roman Church by Constantine the Great. He was represented at the council of Nice, and is said to have held a council at Rome to condemn the heresies of Arius and others. The story of his having baptized Constantine is pure fiction, as almost contemporary evidence shows the emperor to have received this rite near Nicomedia at the hands of Eusebius, bishop of that city. According to Döllinger, the entire legend, with all its details of the leprosy and the proposed bath of blood, cannot have been composed later than the close of the 5th century, while it is certainly alluded to by Gregory of Tours (*ob.* 594) and Bede. The so-called *Donation of Constantine* was long ago shown to be spurious, but the document is of very considerable antiquity and, in Döllinger's opinion, was forged in Rome between 752 and 777. It was certainly known to Pope Hadrian in 778, and was inserted in the false decretals towards the middle of the next century.

SILVESTER II., pope from 999 till 1003, and previously famous, under his Christian name of Gerbert, first as a teacher and afterwards as archbishop successively of Rheims and Ravenna, was an Aquitanian by birth, and was educated from his boyhood at the abbey of St Gerold in Aurillac. Here he seems to have had Gerald for his abbot and Raymond for his instructor, both of whom were among the most trusted correspondents of his later life. From Aurillac, while yet a young man (*adolescens*), he was carried off to the Spanish march by "Borrell, duke of Hither Spain" for the sake of prosecuting his studies in a district where learning, at that time, flourished more luxuriantly than in Aquitania. Borrell entrusted his young protégé to the care of a certain Bishop Hatto, under whose instruction Gerbert made great progress in mathematics. In

¹ R. B. Chapman, *Financial Department of Government of India.*

this duke we may certainly recognize Borel, who, according to the Spanish chroniclers, was count of Barcelona from 967 to 993, while the bishop may probably be identified with Hatto, bishop of Vich or Ausona from c. 960 to 971 or 972. In company with his two patrons Gerbert visited Rome, where the pope, hearing of the young student's proficiency in music and astronomy, induced him to remain in Italy, and before long introduced him to the emperor Otto I. A papal diploma, still extant, shows that Count Borel and Bishop Octo or Otho of Ausona were at Rome in January 971, and, as all the other indications point to a corresponding year, enables us to fix the chronology of Gerbert's later life.

When brought before the emperor, Gerbert admitted his skill in all branches of the quadrivium, but lamented his comparative ignorance of logic. Eager to supply this deficiency he seized the opportunity of following Lothaire's ambassador Garamnus, archdeacon of Rheims, to this city, for the sake of studying under so famous a dialectician in the episcopal schools which were then (c. 972?) rising into reputation under the care of Archbishop Adalbero (969-989). So promising a scholar soon attracted the attention of Adalbero himself, and Gerbert was speedily invited to exchange his position of learner for that of teacher. At Rheims he seems to have studied and lectured for many years, having amongst his pupils, now or at a later time, Hugh Capet's son Robert, afterwards king of France, and Richer, to whose history we owe almost every detail of his master's early life. According to this writer Gerbert's fame began to spread over western Europe, throughout Gaul, Germany, and Italy, till it roused the envy of a rival teacher, Otric of Saxony, in whom we may doubtless recognize Oetricus of Magdeburg, the favourite scholar of Otto I., and, in earlier days, the instructor of St Adalbert, the apostle of the Bohemians. Otric, suspecting that Gerbert erred in his classification of the sciences, sent one of his own pupils to Rheims to take notes of his lectures, and, finding his suspicions correct, accused him of his error before Otto II. The emperor, to whom Gerbert was well known, appointed a time for the two philosophers to argue before him; and Richer has left a long account of this dialectical tournament at Ravenna, which lasted out a whole day and was only terminated towards evening at the imperial bidding. The date of this controversy seems to have been about Christmas 980, and it was probably followed almost immediately by Otric's death, October 1, 981.

It must have been about this time (c. 982) that Gerbert received the great abbey of Bobbio from the emperor. That it was Otto II., and not, as formerly supposed, Otto I., who gave him this benefice, seems evident from a diploma quoted by Mabillon (*Annales*, iv. 121). Richer, however, makes no mention of this event; and it is only from allusions in Gerbert's letters that we learn how the new abbot's attempts to enforce his dues waked a spirit of discontent which at last drove him in November 983 to take refuge with his old patron Adalbero. It was to no purpose that he appealed to the emperor and empress for restitution or redress; and it was perhaps the hope of extorting his reappointment to Bobbio, as a reward for his services to the imperial cause, that changed the studious scholar of Rheims into the wily secretary of Adalbero. It was a time of great moment in the history of Western Europe. Otto II. died in December 983, leaving the empire to his infant heir Otto III. Lothaire claimed the guardianship, and attempted to make use of his position to serve his own purposes in Lorraine, which would in all probability have been lost to the empire had it not been for the indefatigable efforts of Adalbero and Gerbert. Into the obscure details of the succeeding years,

as they have to be pieced together from the letters of Gerbert and the hints of Richer or the later annalists, there is no need to enter here. Gerbert's policy is to be identified with that of his metropolitan, and was strongly influenced by gratitude for the benefits that he had received from both the elder Ottos.

According to M. Olleris's arrangement of the letters, Gerbert was at Mantua and Rome in 985. Then followed the death of Lothaire (2d March 986) and of Louis V., the last Carolingian king, in May 987. Later on in the same year Adalbero crowned Hugh Capet (1st June) and his son Robert (25th December). Such was the power of Adalbero and Gerbert in those days that it was said their influence alone sufficed to make and unmake kings. The archbishop died 23d January 989, having, according to his secretary's account, designated Gerbert his successor before his decease. Notwithstanding this, the influence of the empress Theophania secured the appointment for Arnulf, a bastard son of Lothaire. The new prelate took the oath of fealty to Hugh Capet and persuaded Gerbert to remain with him. When Charles of Lorraine, Arnulf's uncle, and the illegitimate son of Louis D'Outremer, surprised Rheims in the autumn of the same year, Gerbert fell into his hands and for a time continued to serve Arnulf, who had now gone over to his uncle's side. He had, however, returned to his allegiance to the house of Capet before the fall of Laon placed both Arnulf and Charles at the mercy of the French king (c. 30th March 991). Then followed the council of St Basle, near Rheims, at which Arnulf confessed his treason and was degraded from his office (17th June 991). In return for his services Gerbert was elected to succeed the deposed bishop.

The episcopate of the new metropolitan was marked by a vigour and activity that were felt not merely in his own diocese but as far as Tours, Orleans, and Paris. Meanwhile the friends of Arnulf appealed to Rome, and a papal legate was sent to investigate the question. As yet Hugh Capet maintained the cause of his nominee and forbade the prelates of his kingdom to be present at the council of Mouzon, near Sedan (June 2, 995). Notwithstanding this prohibition Gerbert appeared in his own behalf. The events of the next few years are somewhat obscure. Council seems to have followed council, but with uncertain results. At last Hugh Capet died in 996, and, shortly after, his son Robert married Bertha, the widow of Odo, count of Blois. The pope condemned this marriage as adulterous; and Abbo of Fleury, who visited Rome shortly after Gregory V.'s accession, is said to have procured the restoration of Arnulf at the new pontiff's demand. We may surmise that Gerbert left France towards the end of 995, as he was present at Otto III.'s coronation, May 21, 996. Somewhat later he became Otto's instructor in arithmetic, and had been appointed archbishop of Ravenna before May 998. Early in the next year he was elected pope (April 999), and took the title of Silvester II. In this capacity Gerbert showed the same energy that had characterized his former life. He is generally credited with having fostered the splendid vision of a restored empire that now began to fill the imagination of the young emperor, who is said to have confirmed the papal claims to eight counties in the Ancona march. Writing in the name of the desolate church at Jerusalem he called upon the warriors of Christendom to arm themselves in defence of the Holy City, once "the light of the world," but now fallen so low. Thus he sounds the first trumpet-call of the crusades, though almost a century was to pass away before his note was repeated by Peter the Hermit and Urban II.¹

¹ This letter, even if spurious as now suspected, is found in the 11th-century Leyden MS., and is therefore anterior to the first crusade.

Nor did Silvester II. confine himself to plans on a large scale. He is also found confirming his old rival Arnulf in the see of Rheims; summoning Adalbero or Azelmo of Laon to Rome to answer for his crimes; judging between the archbishop of Mainz and the bishop of Hildesheim; besieging the revolted town of Cesena; flinging the count of Angoulême into prison for an offence against a bishop; confirming the privileges of Fulda abbey; granting charters to bishoprics far away on the Spanish mark; and, on the eastern borders of the empire, erecting Prague as the seat of an archbishopric for the Slavs. More remarkable than all his other acts is his letter to St Stephen, king of Hungary, to whom he sent a golden crown, and whose kingdom he accepted as a fief of the Holy See. It must, however, be remarked that the genuineness of this letter, in which Gerbert to some extent foreshadows the temporal claims of Hildebrand and Innocent III., has been hotly contested, and that the original document has long been lost. All Gerbert's dreams for the advancement of church and empire were cut short by the death of Otto III., 4th February 1002; and this event was followed a year later by the death of the pope himself, which took place 12th May 1003. His body was buried in the church of St John Lateran, where his tomb and inscription are yet to be seen.

A few words must be devoted to Silvester II. as regards his attitude to the Church of Rome and the learning of his age. He has left us two detailed accounts of the proceedings of the council of St Basle; and, despite his reticence, it is impossible to doubt that he was the moving spirit in Arnulf's deposition. On the whole it may be said that his position in this question as to the rights of the papal see over foreign metropolitans resembled that of his great predecessor Hincmar, to whose authority he constantly appeals. But it is useless to seek in his writings for any definition of the relationship of these powers laid down with logical precision. He is rather the practised debater who will admit his opponent's principles for the moment when he sees his way to moulding them to his own purposes, than the philosophical statesman, who has formulated a theory from whose terms he will not move. Roughly sketched, his argument is as follows. Rome is indeed to be honoured as the mother of the churches; nor would Gerbert oppose her judgments except in two cases—(1) where she enjoins something that is contrary to the decrees of a universal council, such as that of Nice, or (2) where, after having been once appealed to in a matter of ecclesiastical discipline and having refused to give a plain and speedy decision, she should, at a later date, attempt to call in question the provisions of the metropolitan synod called to remedy the effects of her negligence. The decisions of a Gregory or a Leo the Great, of a Gelasius or an Innocent, prelates of holy life and unequalled wisdom, are accepted by the universal church; for, coming from such men, they cannot but be good. But who could recognize in the cruel and lustful popes of later days, in John XII. or Boniface VII., "monsters, as they were, of more than human iniquity,"—anything else than "Antichrist sitting in the temple of God and showing himself as God?" Gerbert proceeds to argue that the church councils admitted the right of metropolitan synods to depose unworthy bishops, but contends that, even if an appeal to Rome were necessary, that appeal had been made a year before without effect. This last clause prepares us to find him shifting his position still further at the council of Causey, where he advances the proposition that John XVI. was represented at St Basle by his legate Seguin, archbishop of Sens, and that, owing to this, the decrees of the latter council had received the papal sanction. Far firmer is the tone of his later letter to the same archbishop, where he contends from historical evidence that the papal judgment is not infallible, and encourages his brother prelate not to fear excommunication in a righteous cause, for it is not in the power even of the successor of Peter "to separate an innocent priest from the love of Christ."

Besides being the most distinguished statesman Gerbert was also the most accomplished scholar of his age. But in this aspect he is rather to be regarded as the diligent expositor of other men's views than as an original thinker. Except as regards philosophical and religious speculation, his writings show a range of interest and knowledge quite unparalleled in that generation. His pupil Richer has left us a detailed account of his system of teaching at Rheims. So far as the trivium is concerned, his text-books were Victorinus's translation of Porphyry's *Isagoge*, Aristotle's *Categories*, and Cicero's *Topics* with Manlius's *Commentaries*. From dialectics he urged his pupils to the study of rhetoric; but, recognizing the necessity of a large vocabulary, he accustomed them to read the Latin poets with care. Virgil, Statius, Terence, Juvenal, Horace,

