most admired productions, I well remember his expression of surprise that while travelling far and near in accumulating his extensive materials for the history of the Dance, he should have entirely overlooked so evident a description, as that which he at once recognised in Chaucer's lines.

WILLIAM J. THOMS.

DECORATIVE PROCESSES CONNECTED WITH THE ARTS DURING THE MIDDLE AGES.

ENAMEL.

A VERY interesting field of enquiry presents itself to the student of mediæval antiquities, in the artistic processes, now obsolete or imperfectly practised, which formerly contributed to give to the decorations, utensils, and various objects of sacred or ordinary use, a character of originality and elegance, devoid of any high perfection in proportion or design, but sufficient to render the examples, which have been preserved to our days, in no slight degree attractive. The investigation of the origin and progress of these arts during successive centuries is a research not merely curious in itself, shewing how they were derived by more remote tradition from Greece or Egypt, or in more recent times from the East, from Italy, or other countries, through the medium of commercial and political intercourse; but taken in an extended view, it may assist the student in forming a just apprehension of the progressive influence of those international relations, and their power to modify the prevalent tastes and character of nations. Amongst the artistic applications of ornament, there is none perhaps more deserving of attention than the art of the enameller, on account of the high antiquity of its origin, its attractive character, and the infinite variety of purposes, connected with the refinements of progressive civilization, to which it was applied.

The specimens now to be found are for the most part defaced and mutilated; the best works were at all times executed on the precious metals, and these, on account of the intrinsic value of the object, have almost totally disappeared and been

condemned to the crucible; some notion, however, of their perfection may be derived from the examination of enamelled works, formed of less precious materials, and preserved in various public and private collections. In our own country, indeed, it is to be regretted that no sufficient exhibition of the enamelled works, produced in different countries at various periods, has hitherto been rendered available to the public. The revived demand for works of this nature renders it highly desirable that the artificer should have ready access to a series of examples, the practical utility of which would not be less fully appreciated, than their interest in connexion with the history of art.

The limits of the present notice will not permit of a detailed enquiry into the speculations respecting the use of enamel in times of remote antiquity, in which some writers have indulged. The Asiatics appear indeed to have preserved to the present time the various processes with which the mediæval enamellers in western Europe were acquainted, and it is not improbable that the art had found its way even to our own shores at a very early period, being transmitted from the East by the migratory tribes who penetrated into the remotest parts of Europe; and that after the lapse of several centuries, when scarcely a trace remained of the primitive tradition, this beautiful art was a second time introduced from the East into France and England.

A remarkable observation of Philostratus merits especial consideration in connexion with this subject[a]. He was a native of Athens, who flourished during the reign of Severus in the earlier part of the third century, and during his later years taught rhetoric in Rome. In his graphic description of the chace, he depicts the gallant hunters, and steeds bearing harness enriched with gold and various colours. For he remarks, the barbarians of the regions of the ocean are skilled, as it is said, in fusing colours upon heated brass, which become as hard as stone, and render the ornament, thus imparted, durable[b]. The

[a] This curious passage has been noticed by Buonarotti, in his Osservazioni istoriche sopra alcuni Medaglioni; and by M. Pottier, in the valuable text of Willemin's Monumens Inedits, tome i. p. 22.

[b] "Ἀργυροχάλινοι, καὶ στικτοὶ, καὶ χρυσοῖ τα φαλαρα. Ταῦτά φασι τα χρώματα τους ἐν ὠκεανῷ βαρβάρους ἐγχειν τῳ χαλκῳ διαπυρῳ· τὰ δὲ συνίστασθαι, καὶ λιθοῦσθαι, καὶ σώζειν ἃ ἐγράφη." Imaginum, lib. i. c. 28, ed. Jacobs, Lips. 1825, p. 44. Olearius remarks, in his annotation on this passage, "Celtas intelligit per barbaros in Oceano," and Heyne observes that the expression seems to denote the Britons, rather than the inhabitants of the northern coasts of Gaul.

examination of the earliest ornaments of bronze or mixed metal, discovered in Britain, seem to corroborate the supposition that the Sophist here alluded to an art analogous to enamelling. Besides the beautiful enamelled vessel brought to light in 1835, in one of the Bartlow Hills, by the late Mr. Rokewode[c], which is apparently of Roman workmanship, and small ornaments found in several places of Roman occupation, there have been discovered in various parts of England ornaments enriched with vitrified colour, which bear no analogy to Roman works in the character of design. It is remarkable that not a few of these relics appear to have been formed to serve as decorations of harness, in accordance with the statement of the Sophist, but until some collection of our earlier antiquities shall have been formed and arranged in series, no positive assertion can be offered in regard to this curious subject. It may be well to direct the attention of those who take an interest in the enquiry, to investigate the precise nature of the *opus Anglicanum*, which has not hitherto been ascertained; it appears to have been a certain kind of decoration, mentioned by ancient writers as most highly esteemed, and, possibly, analogous to that produced by the barbarians of the British isles or neighbouring regions, in the third century, which called forth the commendation of Philostratus.

The term Enamel properly designates vitreous pastes, to which various colours are given by means of metallic oxides: they are either opaque or transparent, and are capable of being applied superficially to several substances, earthy or metallic, forming a decorative covering, or *revetement*, as it is termed by French writers, of admirable brilliancy and durability. The rich blue and green colours which appear on the little figures of deities and on various ornaments discovered in Egypt, appear to be enamels; porcelain, pottery, and glass, have served as the ground-work to which enamel has been applied with the most attractive effect. The subject, however, of which it is now proposed to treat in detail, is the application of enamels to metallic grounds, an art which appears to have been of great antiquity[d], and very extensively practised during the middle ages.

[c] Archæologia, vol. xx. pl. 35, p. 311.

[d] A single specimen of Egyptian enamel on yellow mixed metal, produced by the incrustation of vitreous pastes in cavities chased out on the surface of the plate, and fixed therein by fusion in a manner pre-

The metals capable of being employed as a ground for enamel are gold, silver, and copper, brass being of too fusible a quality. No course of experiments has hitherto made known the substances of which ancient enamels were composed, or the proportions in which they were employed: a few ancient recipes for compounding enamel have been discovered, and one of the most interesting is given as an appendix to this notice. It may here suffice generally to state that the colourless paste, which forms the base, consists of oxides of lead and tin, fused with silex, in certain quantities, the opaque qualities being given by the oxide of tin, whilst various colours are produced by the addition of other metallic oxides; thus from copper green is obtained, red from gold or iron, and blue from cobalt. The use of this last mineral, and the exquisite colour produced from it, seem to predominate to a remarkable extent in the earlier enamels; the field of which is almost invariably enriched with the brilliant hue of the substance called smalt, a word which appears to give the clue to the derivation of the term Enamel.

There can be little doubt that the ornament called in Italy *smaltum*, *smaldum*, and *esmalctum*, was enamel. It is very frequently mentioned in lists of the rich benefactions of the Popes, as early as the seventh and eighth centuries, given by Anastasius: as likewise in the Chronicle of Casino, printed by Muratori, in which may be found a very curious account of the golden *tabula* or altar-front set with *smalta*, and sacred ornaments of metal enriched with superficial colours, and figures, described as productions of Greek art, procured from Constantinople about A.D. 1058. In France it was termed *esmail*, in England amell, emal, esmal, or enamel, and in Germany Schmelze. Menage, Skinner, and Wachter seem to agree that the derivation of these terms is to be sought in the German schmelzen, to melt. The more remote origin of the word must be left to the research of the etymologist, who will not fail to institute a comparison with the Greek μελδω, to melt, the *maltha* described by Pliny, and the Hebrew חשמל, hasmal[e], translated by St. Jerom *electrum*, and by some interpreted as implying enamel.

cisely similar to that adopted by middle-age enamellers in Europe, is in the possession of M. Louis Dubois, one of the Conservateurs of the Louvre, who informed me that during his long study of Egyptian antiquities no other example had come under his notice.

[e] Ezekiel i. 4.

Enamel was employed, during the middle ages, for the decoration of metallic surfaces by means of various processes, distinct from one another, although they produce nearly one and the same effect. In some cases the different colours introduced were applied in a manner not very dissimilar to mosaic-work; slender lines of filigree were attached to the surface of the plate; these were bent and fashioned so as to form the outline of the design, the intervening spaces were then filled in with the desired colours, probably in a pulverized state, and the plate was then exposed to a degree of heat, sufficient to fuse the enamel-paste without affecting the metal. The face of the work was afterwards ground and polished down. The few existing examples of this mode of operation which remain, consist of enamels on gold, such as Alfred's jewel and a small number of specimens of various dates. In this process each colour was separated and kept distinct from that which adjoined, by means of the little metal thread which traced out every portion of the design; this operation must have been tedious and uncertain, and a similar effect was produced by another process which seems to have been most commonly adopted. It is termed in France technically, *champ-levé*, implying that the field of the metal was removed, or tooled out, leaving certain slender lines which serve in place of the filigree to keep one coloured enamel distinct from another, and to define the outline and chief features of the design. The metal plate in this instance, which in almost every known example is of copper, was chased out in the same manner as a wood-cut prepared for printing with letter-press; the casements or cavities excised on the face of the metal served to receive and hold firmly the enamel, with which they were filled by means of fusion; the face having been polished, the lines of metal were gilded, and thus produced an effective appearance as contrasted with the bright colours to which they served as an outline. The thickness of the metal gave great durability to enamelled works of this description, and unless the enamelled object or plate were bent or violently bruised, the colour could not easily be detached. Some examples are indeed to be seen in as perfect preservation as if they had only just been withdrawn from the furnace. The best works of this kind are those which were produced during the twelfth and thirteenth centuries. The next process, which forms properly the step of transition

between the *champ-levé* mode of operation, and the surface-enamels of the fifteenth and sixteenth centuries, may thus be characterized. The design was chased in the lowest possible relief, or even in simple lines, on the face of a plate, usually of silver; a transparent coat of variously coloured enamels was then laid over it, no lines of metal being exposed, and the design was indicated and defined by the work beneath, seen through this transparent medium. This kind of enamelling appears to have been practised in perfection towards the later part of the fourteenth century, and I have been led by careful observation to conjecture that it was first devised by the artificers of Italy. Works of this description frequently exhibit a remarkable perfection in the use of a great variety of colours, which, small as the subject may be, are perfectly distinct, as if laid on with the brush; it is not easy to imagine how the degree of heat requisite to fuse the enamel and fix it upon the plate, could be employed, without disturbing the precise arrangement of colours and blending them together in motley confusion. The chased metal plate coated with transparent enamel seems to have led the way to the art of superficial enamelling in opaque colours, or rather colours laid upon an opaque ground, whereby the metal plate was entirely concealed. These were applied at first to plates of considerable thickness, in order to support a greater degree of heat, and the surface of the earlier examples sometimes appears embossed, the enamel being laid on so thickly as to produce a slight degree of relief; the ornaments, jewels, and other details are also considerably raised by means of little semi-globular silvered spangles, overlaid with brilliant transparent colour, which gave to them the appearance of gems. Work of this description is technically termed in France, *à pailliettes*.

Enamels of this kind have been considered by recent writers on the continent as supplying the step of transition in the series, and leading directly from the earlier *champ-levé* work to the beautiful productions of the school of Limoges, during the reign of Francis I. and the later part of the sixteenth century. But I think that the true transition enamels, which these writers appear to have overlooked, were those above described, in which the operation of chasing the metal was still employed, but in a different manner to that which marks the character of the earlier work.

The opaque enamels of the later part of the fifteenth, and

earlier half of the sixteenth century, (apparently of French and Flemish workmanship,) are sufficiently numerous, although specimens in fine preservation now produce very large prices; some of them are of considerable dimensions, and they exhibit curious details of costume, armour, and architecture, bearing a close general resemblance to the woodcuts and illuminations of the period. The reverse of the plate is invariably covered with enamel of mottled or simple colour, the intention of which was to prevent the warping of the plate to any great extent, when exposed to the fire. The enamel in the earlier works of this nature is, however, laid on so thickly, that the face is usually found to be more or less convex, in consequence of the action of heat to which it had been exposed.

The perfection of the superficial process appears to have been due to the encouragement which was bestowed upon this as well as many arts of decoration by Francis I., who established a royal manufactory of enamels, and by the introduction of Italian artists and works of art, gave to the productions of the enamellers of Limoges excellence of design, as well as elaborate execution and skill in the application of colours. At first the vitreous pigments were chiefly of an opaque quality, but brilliant transparent glazes of colour were quickly after introduced, sometimes laid with most gorgeous effect on a silvered ground, or worked up with shadings produced by dark lines, rivalling almost the depth of tone and harmony of colouring displayed in painted glass.

The chief variations of process employed by enamellers during the middle ages having thus been briefly described, a detailed account of certain characteristic specimens, especially those which exist in England, may, as it is hoped, prove acceptable to those who take an interest in the investigation of ancient art.

In the museum of the Warwickshire Society, formed for the furtherance of research into the natural history and antiquities of the county, a few interesting relics are preserved, discovered at Chesterton, near to the Foss Way, and presented by Lord Willoughby de Broke. The most remarkable objects are four circular plates of bronze, each fitted to a kind of frame or setting of the same metal, from which they are now detached. Two of these ornaments, the intention of which it is not easy to explain, precisely similar in dimension and

every other respect, were furnished with a kind of handle or hook. The annexed representations give an exact idea of their form; they were ornamented with coarse red and white

vitreous pastes or enamels, fixed by fusion in cavities chased out on the surface of the metal. The other two, precisely similar to each other in the enamelled ornament, which is of a cruciform fashion, measure in diameter $2\frac{1}{2}$ in., and differ from the first in having no hooks attached to them. The close similarity of the peculiar design of the ornaments to those which characterize the illuminations in the Durham Book of the Gospels, Cotton MS. Nero, D. 4, written about A.D. 686, and in the Psalter, Vesp. A. 1, supposed to have been brought into England by St. Augustine, A.D. 590, but written, probably, at a somewhat later period, would lead to the conclusion that these enamels were works of the sixth or seventh century. It must be noticed that an enamelled ornament, precisely similar in fashion and adjustment, was found placed near the shoulder of a skeleton interred under a low, or barrow, on Middleton moor, Derbyshire[f]. Burial in tumuli

[f] This discovery is noticed by Pegge, Archæologia, vol. ix. p. 190. The body lay east and west, on the natural surface of the soil.

appears however to have continued as late as the eighth century. Several curious brooches have been discovered in England, chiefly in tumuli, in the formation of which coloured vitreous paste was employed, combined with gold filigree work. It is difficult to determine whether they are to be considered as enamels, or precious mosaics, analogous in workmanship to certain ornaments of the Carlovingian era which have been found on the continent and in England: representations of several brooches of this description, found in barrows in Kent, have been given by Douglas in the Nenia, and a beautiful specimen is preserved with his collections in the Aslnnolean Museum[g].

One of the most interesting relics of enamelled art which exist in England is the gold ring of Ethelwulf, king of Wessex, A.D. 836—838, father of Alfred the Great. It was found in the parish of Laverstock, Hants, in a cart-rut, where it had become much crushed and defaced[h]. The original form of this remarkable ring is here represented; its weight is 11 dwts., 14 gr., and the cavities chased on its surface are filled up with a glossy bluish-black enamel. Ethelwulf became late in life a monk at Winchester, where he had been educated, and died there. There seems to be no reasonable ground for questioning the appropriation or authenticity of this ornament, which is now preserved in the medal room at the British Museum. It may deserve observation that this king resided during a year at Rome, and espoused a French princess, Judith, daughter of Charles the Bald. Some persons have been disposed, in consideration of these circumstances, to regard this ornament as of foreign workmanship; there is, however, no appearance in the details of ornament which would cause a doubt of its having been the work of a Saxon artificer. A second gold enamelled ring of this period, of elegant design, was discovered in Caernarvonshire, inscribed with the name ALHSTAN, which, as Pegge conjectured, belonged

[g] A representation of a curious brooch of this kind, found in a tumulus on Winstor Common, Derbyshire, is given in Archæologia, vol. iii. p. 274. Mr. Akerman has given another, of very curious character, in Numism. Chron., No. xxiii. The original was discovered by Lord Albert Conyngham in a tumulus at Wingham, near Sandwich.

[h] Archæologia, vol. vii. p. 421. pl. xxx. A representation of this ring has been given by Mr. Shaw in his interesting series of Dresses and Decorations.

to the bishop of Sherborne of that name, A.D. 817—867, who was the chief counsellor of Ethelwulf[i]. These relics supply admirable illustrations of the *champ-levé* process, as practised in the ninth century.

More precious even than the ring of Ethelwulf is an example of a somewhat different process of enamelling upon gold, the jewel of Alfred, now preserved in the Ashmolean Museum at Oxford. This ornament was discovered in 1693 near Athelney abbey, in a part of Somersetshire which had often been visited by Alfred, and to which he had retreated when worsted by the Danes, A.D. 878. It is formed of gold, elaborately wrought in a peculiar kind of filigree, mixed with chased and

Reverse Alfred's Jewel. Obverse Profile.

engraved work. The legend around the edge of the jewel, ✠ AELFRED MEC HEHT GEVVRCAN, (Aelfred ordered me to be wrought,) is cut in bold characters, the intervening spaces being pierced, so that the crystal within is seen[k]. The face is formed of a piece of rock-crystal, four-tenths of an inch in

[i] Archæologia, vol. iv. p. 47.

[k] A full account of the numerous conjectures as to the use for which this jewel was destined, and the import of the figure which forms the principal ornament, has been given by Mr. Duncan in the catalogue of the Ashmolean collection. Representations of it were given by Dr. Musgrave, Phil. Trans. xx. 441; Hickes, ib. xxii. 464; Ling. Sept. Thes. i. pp. viii. 142, and several other authors. It has formed the subject of a beautiful illuminated plate in Mr. Shaw's Dresses and Decorations, from which, by his obliging permission, the representations here given have been taken, and carefully compared with the original, under the accurate eye of Mr. Orlando Jewitt.

thickness, under which is placed the singular enamelled subject, of which no satisfactory explanation has hitherto been given; it has been supposed to be a representation of the Saviour, St. Neot, St. Cuthbert, or of Alfred himself. The workmanship is very curious: the design was first traced out in filigree attached to the face of the plate of gold; the intervening spaces were then filled up with vitreous pastes of different colours, so that at first sight the work appears to resemble a mosaic, but there can be little doubt that the colours were fixed upon the plate by fusion. The ground is of a rich blue, coloured probably by means of cobalt; the face and arms are white, slightly shaded; the portions which in the woodcut are shaded diagonally are of a pale translucent green, and those which are hatched with perpendicular lines are of a reddish brown. The vitreous pastes in this instance are semi-transparent and of a crystalline crackly appearance, resembling some specimens of quartz. The rarity and great value of works of this description render it impracticable to ascertain by analysis the precise nature of this kind of enamel, applied in all known examples to gold alone, and evidently differing in composition from enamels of more common occurrence, executed upon copper.

The late Mr. Petrie informed me that an ornament, enriched by a similar process of art, had been found in the neighbourhood of Worthing. A convex brooch of gold filigree, set with pearls, and a central enamelled ornament precisely similar to Alfred's jewel in the mode of execution, was found in 1840, about nine feet beneath the surface, in Thames-street, London[1]. A similar ornament, of most rich and elaborate workmanship, is preserved with the Hamilton gems in the British Museum, but no record of the circumstances connected with the discovery has been found. The enamelled compartment in the centre is of cruciform design, elegantly foliated, and enriched with various colours, the border being set with pearls and enamels of smaller size, alternately. This beautiful brooch measures in diameter 2 in. and four-tenths. In these examples it appears certain that the colours were fixed upon the gold by

[1] It is in the possession of Mr. C. R. Smith, who communicated an account of it to the Society of Antiquaries. See Archæologia, vol. xxix. pl. x.

exposure to heat, and that they may with propriety be regarded as enamels.

The generally received opinion has been that enamels of this description were of oriental fabrication, and it is very possible, as Sir Francis Palgrave has suggested, that the enamelled portions of ornaments, such as the jewel of Alfred, were brought from the continent, either by way of Rome, or through that more direct intercourse with the East of which evidences might be adduced. There appear indeed to be certain grounds for the conclusion that works of this kind, exhibiting strong marks of the influence of oriental art, were produced in early times both in England and France, but it must be admitted that enamels unquestionably of Byzantine workmanship, exhibiting the conventional details of symbolism attributed to the Eastern Church, and bearing Greek legends, are identical in the peculiarities of construction with the specimens here noticed, as existing in England. Such, apparently, are the more ancient parts of the *pala d'oro*, the decoration of the high Altar at St. Mark's, Venice, executed at Constantinople, A.D. 976, by order of the Doge Pietro Orseolo[m]. A small portion of this *pala*, as it has been asserted, formerly in the De Bruges collection at Paris, may now be seen in the series of enamels open to public inspection at the Museum of Economic Geology, Craig's-court, Charing Cross. It is an exquisite work upon gold, representing St. Paul, as indicated by the inscription—*Ο ΑΓΙΟϹ ΠΑΥΛΟϹ*—the letters are arranged in a perpendicular line. In the peculiarities of the process of art this remarkable little specimen precisely resembles the Alfred jewel. The most precious example, however, of Byzantine enamels of this description, which I have had occasion to examine, is the representation of St. George, formerly in the cabinet of the duke of Modena, and now preserved in the choice collection of the Comte de Pourtalès Gorgier, at Paris[n].

The precise period to which we may assign the establishment at Limoges of a school of enamellers, whose earlier works exhibit evidences of Byzantine influence, has not been ascertained.

[m] Representations of the *pala* are given by Cicognara, Fabbriche di Venezia. Eglises principales de l'Europe.

[n] The cross discovered in Denmark, in the tomb of Queen Dagmar, who died A.D. 1213, appears to be of this peculiar kind of Byzantine work. It is now preserved in the Royal Museum at Copenhagen. See Petersen's account of this curious relic, and remarks on the intercourse between Constantinople and the North, Annal. for Nordisk Oldkyndigheid, 1842, p. 13.

The Abbé Texier, whose learned Historical Essay on the Artists of Limoges affords the most valuable information hitherto published on the subject of Enamel[o], supposes that the art was introduced from Constantinople into France by way of Venice, towards the close of the tenth century. The artificers of Limoges appear to have excelled in the art of enamelling, and during a long series of years their productions were highly esteemed in many countries of Europe. A document dated A.D. 1197, shews that even in Italy their works were not unknown[p]. Of the esteem in which they were held in England a curious evidence is supplied by the Constitutions of the bishops of Worcester, Walter de Bleys, A.D. 1229, and Walter de Cantilupe, A.D. 1240, respecting the ornaments and vessels to be provided for every parish church, in which it was ordained that the Eucharist should be reserved in a pyx formed either of silver, or ivory, or of the work of Limoges, "*de opere Lemovitico*[q]." Dr. Rock possesses a pyx of this period which had been used for that purpose in a parish church in Buckinghamshire, as he has reason to believe, previously to the Reformation. Of precisely similar form is the pyx in the possession of Mr. S. P. Cox, of which a representation is given. The field is partly of an intense blue colour, produced probably by cobalt: a pale green being

Pyx, belonging to S. P. Cox, Esq. Diam 2¾ in.

[o] Memoires de la Sociéte des Antiquaires de l'Ouest; Poitiers, 1842, p. 101.

[p] The following item occurs in a charter of that date, cited by Ughelini, Italia Sacra, VII. 1274. "Duas tabulas æneas super auratas de labore Limogie."

[q] Wilkins's Conc. i. pp. 623, 666. In the visitation book of William, dean of Salisbury, A.D. 1220, it is stated that at Wokingham, Berkshire, there was found "crux processionalis de opere Lemovicensi," and in the chapel of Hurst, in the same county, "pixis dependens super altare cum Eucharistia, de opere Levomicensi," (*sic*). Amongst the feretra, or shrines in St. Paul's, A.D. 1298, are enumerated "duo coffræ rubeæ de opere Lemovicensi," as likewise candlesticks of copper and a cross, "de opere Limoceno." Dugd. Mon. iii. 31. Amongst the gifts of Gilbert de Glanville, bishop of Rochester, 1185—1214, are enumerated "cofres de Limoges." Reg. Roff. 121. Prior Helyas gave also to Rochester cathedral "bacinos de Limoges, qui sunt cotidie ad majus altare."

the only other colour which is introduced. It measures in diam. $2\frac{1}{2}$ in. by 3 in. in height, not including the cross. Enamel was employed in the enrichment of every description of sacred ornament. An example of very elegant design is preserved in the cabinet of antiquities, in the king's library at Paris; it is one of the vials or cruets, used to contain the wine and water for the service of the mass, termed amulæ or phialæ, and in French *burettes*. The height of the original measures 6 in.

Burette, Bibl du Roi, Paris.

Plates of enamelled work were also much used in ornamenting the bindings of the *Textus*, or other books of sacred use; a curious example is here given, which exhibits a representation of Abraham receiving

bread and wine from Melchisedec; he is armed in a hauberk worn over the gamboison, and wears a helmet with a nasal.

This little work, which is to be seen at the Louvre, may be assigned to the close of the twelfth century, and affords a specimen of the *champ levé*, or chiselled process, combined with filigree, which is introduced in forming the quatrefoils in the upper and lower borders of the plate.

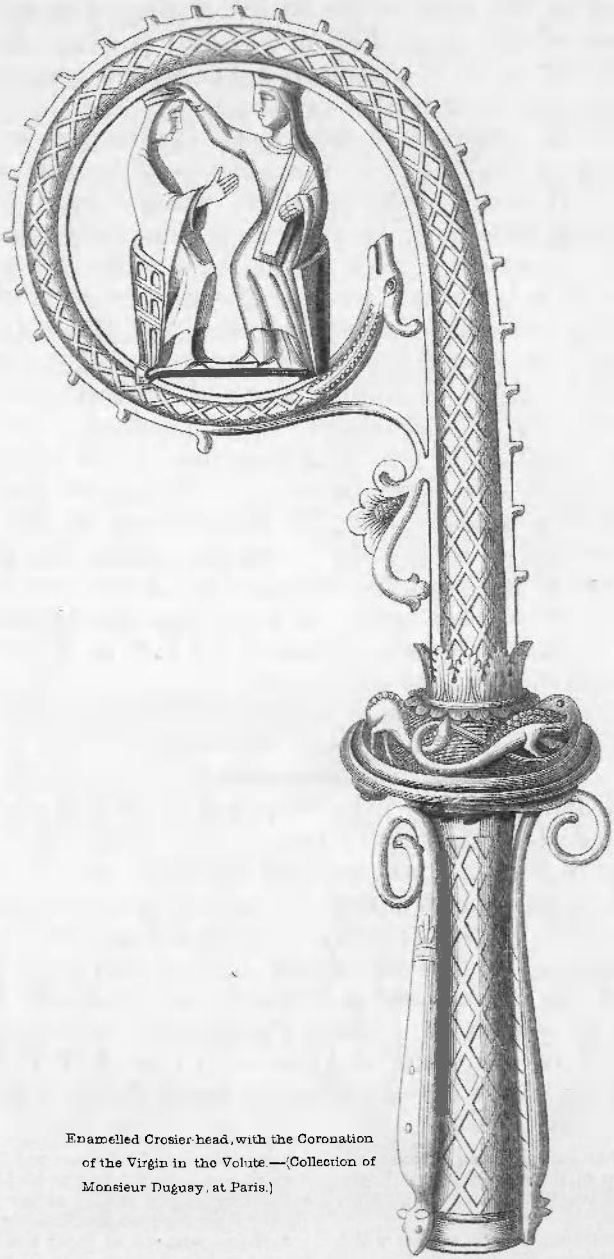
Numerous processional crosses and crosiers still exist, of the work of Limoges. It was customary to deposit the crosier in the tomb of the prelate to whom it had belonged, and several interesting examples have thus been preserved. The most remarkable work of this kind is the crosier discovered in a tomb at Chartres cathedral, and attributed to Ragenfroi, bishop of that see, who died A.D. 941. It bears the inscription FRATER WILLIELMVS ME FECIT. The design is exceedingly elaborate; the costume and ornament shew that it is not more ancient than the twelfth century. This relic was purchased by the late Mr. Douce, and by him bequeathed to Sir Samuel Meyrick, in whose collection at Goodrich court it is now preserved[r]. By the kindness of Mr. Shaw I am enabled here to offer a representation of a crosier of somewhat less beautiful design, which forms part of the collection of Mons. Duguay at Paris[s] (see next page). In almost all these works the enamel of the field is of that rich blue which indicates the use of cobalt.

Warton cites a passage in a metrical Romance, descriptive of a tomb enriched with "golde and limaise." The work of Limoges was frequently rendered available in the construction of sepulchral memorials. The enamelled tombs and effigies of Philippe de Dreux, bishop of Beauvais, who died 1217; Alix, countess of Britanny, wife of Peter Mauclerc; and of Simon, archbishop of Bourges[t]; may be noticed as remarkable examples: they were destroyed during the last century, and the only enamelled effigy in relief now existing in France, is the figure of one of the sons of St. Louis, who died A.D. 1247, now to be seen at St. Denis. The splendid enamelled portraiture of Geoffrey, earl of Anjou, who died A.D. 1149, is perhaps one of the choicest examples to be found in France.

[r] Willemin has given an excellent representation of this crosier in the Monuments Inedits. See also Gent. Mag. N.S. vi. 158.

[s] This woodcut, as well as that which represents the pyx belonging to Mr. Cox, form part of the illustrations of Mr. Shaw's beautiful Series of "Dresses and Decorations;" and I am indebted to his kindness in enabling me to present to our readers these interesting examples.

[t] Representations of these tombs may be seen in Gough's collection of drawings of foreign monuments, in the Bodleian.



Enamelled Crosier-head, with the Coronation of the Virgin in the Volute.—(Collection of Monsieur Dugusy, at Paris.)

It is a flat tablet, measuring about 25 in. by 12½ in., which formerly was affixed to the wall in the cathedral church of St. Julian at Le Mans, where he was interred[u].

About the year 1276, the enamelled work of Limoges was so highly in repute in England, that an artist of that city, "Magister Johannes Limovicensis," was employed to construct the tomb and recumbent effigy of Walter de Merton, bishop of Rochester. The monument was despoiled of the enamelled metal at the Reformation, but the accounts of the executors supply the items of expenses incurred in sending a messenger to Limoges, and conveying the tomb from thence, accompanied by Master John, to Rochester[x]. The only enamelled effigy now existing in England is the figure of William de Valence, in Westminster abbey[y]; he died A.D. 1296, and there can be no doubt that this highly curious portraiture, if not the work of Master John, who might have been employed in consequence of the previous display of his skill at Rochester, was produced by an artist of Limoges.

Having now endeavoured to trace the practice of enamelling from the earliest times to the close of the thirteenth century, a period when all the decorative arts were carried to a great degree of excellence, I shall reserve for a future occasion some further notices of the enamelled works of later times, and of progressive modifications of the process which ultimately led to the production of the exquisite paintings executed by Léonard Limosin and the artists who were established at Limoges, under the influence of the times of Francis I.

The following document, the most ancient recipe for the composition of enamel hitherto noticed, is preserved in the British Museum, in one of the Sloane MSS. which appears to have been written in England in the earlier part of the fourteenth century. It deserves observation, as indicating that

[u] Stothard has given a representation of this plate, in his series of Monumental Effigies, and a facsimile, of the same dimensions as the original, has been given in Du Sommerard's Arts du Moyen Age.

[x] This curious document, preserved amongst Anthony Wood's MSS. Bibl. Bodl. Cod. Ballard, 46, gives the following details: "Computant (executores) xl. li. vs. vj.d. liberat' Magistro Johanni Limovicensi pro tumba dicti Episcopi Roffensis; scilicet, pro constructione et carriagio de Lymoges ad Roffam; et xls. viijd. cuidam executori apud Lymoges ad ordinandum et providendum constructionem dicte tumbe; et xs. viijd. cuidam garcioni eunti apud Lymoges querenti dictam tumbam constructam et ducenti eam cum dicto Magistro Johanne usque Roffam." Thorpe Custum. Roff. 193.

[y] Stothard's Monumental Effigies. Some small portions of enamelled work appear on the effigy of the Black Prince, and on some sepulchral brasses, which will be noticed hereafter.

English artificers about that period were not unskilled in the art of enamelling, that in the Roll of the inhabitants of Paris, A.D. 1292, the names of gold-workers appear, designated as Englishmen, or of London, and that of five enamellers then settled in Paris, one entered as "Richardin l'esmailleur, de Londres[z]."

Sloane MS. 1754, f. 231.

"Ad faciendum emallum. Emallum sic fit. Accipe plumbum et funde, semper accipiendo crustulam super eminentem, quousque totum vastetur plumbum, de quo accipe partem unam, et de pulvere subscripto tantumdem; et est iste pulvis; Accipe parvos lapillos albos qui sunt in aquis, et contere ipsos in pulverem minutissimum; et si volueris habere citrinum, appone oleum de avellanis, et move cum virgâ coruli: pro viridi, appone limaturam cupri, vel viride Grecum; pro rubeo, appone limaturam latonis cum calaminâ; pro indico, azorium bonum vel saffre, unde vitrearii faciunt vitrum indicum."

To make enamel. Enamel is thus made: take lead, and melt it, continually taking off the pellicle which floats on the surface, until the whole of the lead is wasted away; of which take one part, and of the powder hereafter mentioned, as much; and this is the said powder: take small white pebbles which are found in streams, and pound them into most subtle powder; and if you wish to have yellow enamel, add oil of filberts and stir with a hazle rod; for green, add filings of copper, or verdigris; for red, add filings of latten with calamine; for blue, good azure[a] or saffre, of which glaziers make blue glass.

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[z] Documens Inedits; Paris sous Philippe le Bel, p. 23.

[a] See in the same MS. f. 234, "pro asuro faciendo," the chief ingredient being "lapides lazuli, i. lapis minere." Compare f. 225, 236, vo. "ad faciendum lazurium," a composition of quicksilver, sal armoniac, &c. The mention of "saffre," if by that term may be understood zaffre or cobalt, deserves especial notice; but some writers suppose that the sapphire of the ancients was our lapis-lazuli. See Beckman's notices of Ultramarine and Cobalt, Hist. of Inv., vol. ii.

x Zaffre is most probably Smalt still in common so called. J.W.