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Bulletin

For April, Nineteen Hundred and Eight

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THE LAMBORN COLLECTION OF ROMAN GLASS 
FRAGMENTS

The Robert H. Lamborn Collection of Roman Glass in the Pennsylvania Museum numbers over 1500 fragments and includes specimens of nearly every variety manufactured by the Roman glass-makers at the beginning of our era.

One specimen of the cameo ware, representing a bull's head between garlands of flowers cut in white on a black background, is especially deserving of notice. (See illustration.) It is but a small and humble example of a class of manufacture that reached its highest development in such works of art as the Barberini or Portland vase of the British Museum and the Borbonico vase of Naples; but, as such, it holds an important place in the series. Perfect examples are extremely rare, and even fragments such as the one mentioned are few and by no means insignificant. The effect is produced by superposing a layer of white paste over another either blue, purple or black. The upper layer is then carved out according to the design and forms the relief. In the fine examples cited above, a shading is produced by the more or less deep cutting of the cameo, which allows of the dark background appearing through the thin white paste.

In other styles the collection is very full. Besides the opaque glass of various shades—turquoise, lapis-lazuli, jasper, porphyry, malachite, serpentine, obsidian, yellow or white stone—there are variations of these in imitations of veined marbles and conglomerate stones. A full line of translucent fragments, simulating agate or onyx of different shades and markings, is also interesting in its variety. Some of these fragments formed parts of ribbed vessels, a style obtained by adding partly melted strings of glass to the surface, or by molding at a certain period of the "paraison."

One of the most beautiful products represented in the series is the amethystine, of a rich, pure, soft-skinned, crystalline purple. One specimen is sparsely veined with white opaque streaks; another remarkable piece is opalescent as well as veined, and when held up to the light becomes fiery red, recalling Pliny's description of the enigmatic "Murrhine" (N. H. Book XXXVII, 8).

Then comes an almost infinite variety of mosaic glass, from the exquisite translucent green, through which loosely rolled opaque white rods are disposed
in slanting rows with charming effect, approaching the madrepore coralline limestone, to the variety later imitated under the name of "millefiori" by the Venetians, in which polychrome flower patterns are joined together in a mass resembling mosaic. This result was arrived at by taking rods of a given floral outline, joining them together and heating them to a plastic condition. They were then drawn out, and the size was thus reduced according to taste. When cold, transverse sections were cut, on each of which the design appeared. In this process we have a development of the fused mosaic glass which the Egyp-

![Ancient Roman Glass](image)

thians used for inlays and slabs. Only here it is adapted to ordinary uses. Bowls and such vessels were perhaps partly blown, but finished on the wheel and highly polished.

Thin ribbons of glass of various gaudy hues were also joined together at right angles, with tartan-like effect, gold leaf being sometimes set in between two layers of thin clear glass to enhance the richness of the color scheme. There are several varieties of the double-layer process. One fragment, for
ANCIENT ROMAN GLASS
Fragment at Top is Cameo Cut Glass
White Relief on Black Ground
instance, presents an outer layer of very thin deep blue glass less than the thirty-second part of an inch thick. The surface is pressed in at regular intervals, forming indentations so that when held up to the light these thinner depressions form light-spots. This thin upper layer is veined on its outer surface with white wavy lines stretching diagonally about a quarter of an inch apart, and on the inner surface with dark blue and white close zigzag lines which are seen through the thicker under layer of clear white glass. When held up to the light all these lines appear through the fragment.

Many varieties of filigree glass, the "vitro di trina" of the Venetians, of fine or coarser thread, are in the collection. Besides the pure white or golden yellow, lacy varieties, edged with a narrow blue, red or green border, these filigree rods of white or yellow opaque twisted threads are much used in strips or as borders, or even between the plaid-like colored bands of ribbon glass, forming endless combinations. A good effect is also produced with the aid of a silvery metallic interlining between the layers of clear white filigree.

The translucent sapphire glass of varied shades, designs and processes of manufacture, affords another evidence of the enormous variety of coloring and combinations at the disposal of the Roman artist when at the zenith of his art, and strips of inlay, rondelles, buttons, etc., attest the diffusion of glass as a material used in decoration.

There are in the collection some pieces of thin clear glass engraved or ground on the wheel in shallow designs. These, however, are by no means as successful in effect. It would seem that accidents were common in the course of their manufacture, and Martial (XIV, 115) says that jurists were called upon to define the circumstances under which the workman was liable for the value of the vessel destroyed in the process.

Etching upon glass, it is needless to say, was unknown, as it depends upon the properties of fluoric acid, a chemical discovery of the last century (Smith's Græco-Roman Antiquities, II, 973).

Through a process entirely different from those mentioned above, excellent artistic effects were produced. The glass surface was here cut into and the softer glass paste was poured in, forming polychrome flowers and other designs.

Froehner, in his Catalogue of the Charvet Collection, divides Roman glass into fifteen classes; but in going over the multiplicity of the results obtained and the endless combinations of processes through which these results have been produced, it would seem as though such a classification was more or less arbitrary.

The enormous quantity of glass found in the ruins of Pompeii shows that in the first century the industry was highly flourishing in southern Italy. Nevertheless, it is well known that at the beginning of our era the Romans imported glass from Alexandria, then one of the great centres of manufacture and trade. Hadrian, in a letter to the Consul Servianus, mentions glass-blowing as one of Alexandria's chief industries. Cicero (pro. Rab. Post., 14-40) tells of glass, linen and paper as brought from Egypt, and an ordinance of Aurelian including it in the tribute to Rome, informs us that this Egyptian product was still an important article of trade in the latter part of the third century.
But if the Romans learned the art from Egypt, they were wonderfully apt pupils and became past masters. There is hardly an application of it in medizeval Europe that they did not deal with. Strabo (XVI, 25) says that in Rome new processes were invented daily for simplifying the manufacture of the product or for improving upon the coloring. Such was the development of the industry that "a successful imitation of crystal may now be made so cheaply that a drinking glass with its stand may be sold for a copper coin."

It would also appear that in his day the Britons obtained what little glass they used from the Continent, and Edward Dillon, in his interesting work on "Glass," expresses his belief that as early as the second century of our era there were glass works in southern England where cinerary urns were manufactured. These have been found in considerable numbers. They were enclosed in lead or stone coffins which preserved them.

The glass industry among the Romans grew to such magnitude that eventually glass was manufactured wherever they penetrated. Traces of such enterprise are found in Gaul, Spain, England and the Rhenish provinces (Pliny, H. N. XXXVI, 192-199, comp. Guicherat, Rev. Arch., XXVIII). In the first century, according to Pliny, under Tiberius, glass-blowing became of importance, and in time grew to be essentially a Roman art. This it remained for four hundred years. A prodigious number of fragments as fine as the most celebrated pieces that have come down to us are dug up every year in Rome.

We know from Pliny that the Roman glass-makers made opaque red, black, white, jacinth, sapphire and other gem imitations, as well as "Murrhine" glass. He names enormous sums as having been paid for the best grades of the artistic products that were valued above silver and gold.

When and where blown glass was evolved is doubtful. Glass manufactured in the Ptolemaic period still belongs to the old type. The new process, however, seems to have been in common use during the Roman or Coptic period in Egypt, and Roman tradition gave credit for the new mode of manufacture to the Sidon glass-makers. How early true blown glass was made in Egypt it is impossible to state. Ancient Egyptian glass vases are molded. A representation in a tomb of the time of the pyramid-builders, formerly regarded as a glass-blowing scene, was undoubtedly meant for a metallurgical operation, and although glass vases are represented on the walls of a tomb at Beni-Hassan as early as the XIIth dynasty (circa 2000 B. C.), the wall painting in which bulbs are seen at the end of blow pipes held by men who have just removed them from the fire has been shown by Mr. Griffith to belong to the same category (see Beni-Hassan, part IV, pl. XX, p. 5). Another painting of the New Empire (Wilkinson, II, 140), which shows two men blowing through tubes at a large vase, while a third holds a bubble at the end of his blow pipe, as Erman has already remarked (Ægypten und Æg. Leben, II, 608-9), is difficult to account for in any other way but that the scene deals with some part of the glazing process. But no blown glass so far has been found in Egypt prior to Roman times.

In arguing about Egyptian questions, one must never feel too sure, because certain things have not been found, that they were not known. When Erman
wrote his chapters on Egyptian industries, in 1894, he ascribed the use of faience or porcelain glaze, such as beads and other small glass objects, to the close of the Old Empire. He also mentioned, as the earliest specimen known, a vase of faience of the reign of Usertesen (circa 2000 B. C.). Some six years later, however, at Abydos, a full line of that ware, including figurines and an admirable fragment of a glazed vase bearing Mena’s name, was discovered by Mr. Flinders-Petrie. Other specimens were also found by Mr. Amélineau, all dating from the reign of the founder of the Egyptian empire. Indeed, the quality and abundance of this material make it certain that the industry went back to prehistoric times. It has been suggested by a French scholar that the possibilities of glass-making were discovered in the copper age through the metallurgical operations connected with the copper industry. The early glazes were colored with oxide of copper, and the suggestion is a plausible one.

However this may be, chemically the Egyptian glaze is of the same composition as glass. An analysis of Roman glass given by Dillon shows: Silicate, 71.5; soda, 16.5; lime, 8; iron oxide, 1; alumina, 2. And these, with the coloring matter, are the normal elements of ancient glass-making virtually at all times.

In 1898 Mr. Loret discovered in the tomb of Amenhotep II, in the Valley of the Kings, some superb glass vases, to which others were subsequently added by the discovery of the tomb of Amenhotep III (circa 1450 B. C.). The series, now in the Cairo Museum, is unique. Several of these vases are decorated with a dark blue royal cartouche inlaid in polychrome signs. The highest measures eight inches. One is ornamented with three rosettes in relief, the twelve petals of which are blue, red and green on a white background. The most remarkable of the series is one decorated with horses and negroes, which are inlaid beneath the outer surface and appear through its diaphanous transparency.

The earliest dated piece of glass remains, however, a fragment of dark blue impressed with the name of Autef III, of the X1th dynasty, mentioned by Wilkinson (Birch edition, II, p. 142), and the earliest preserved glass vase in existence is still the blue vase in the British Museum bearing the name of Thothmes III.

It is probably in an attempt to imitate veined stone vessels so commonly used in Egypt that the Egyptians and the Mediterranean peoples first devised the small “Chevron” glass bottles that were in such favor throughout the Mediterranean area for at least one thousand years. The “Chevron” pattern with which they were decorated, as may be seen on specimens in the collection of the Pennsylvania Museum, was produced by winding threads of colored glass around the vase while hot, and incorporating them by rolling. The wavy design was then formed by dragging the surface threads in opposite directions. The polychrome threads thus applied of course do not penetrate through the thickness of the body of the vase. It is noteworthy that the few vessels of this type that can be assigned to the XVIIth dynasty are said by authorities, who have handled numerous examples, to be unsurpassed by later specimens for “brilliance of color and purity of glaze.” The interior is rough and appears to have been modeled upon a core of sand, although this is less perceptible in the Egyptian than in other specimens.
These bottles were highly valued. Mr. Salomon Reinach (quoting Tolstoi and Kondakof, Antiquités de la Russie Méridionale, 1891) mentions some of them found in the Crimean tombs, where they were found attached with a gold chain to the wrist of the dead. In Rhodes they are found associated with objects of the third and fourth centuries B. C., and they do not appear later than the Christian era.

In Etruscan burials there are found small cups of translucent green glass sprinkled over with yellow stars. Mixed in with these are splashes of gold, or of color, or of filigree glass. Mr. Dillon sees in this an older style than the madrepore glass so commonly found in Rome. Another variety also, met with in the Etruscan tombs, is the opaque blue with much gold leaf mixed and twisted together. Both of these varieties he regards as probable importations, although they are classed with the Roman manufactures.

None of the small glass bottles or amphoræ found in Greek or Etruscan interments; and imported from the Ægean Islands, can possibly be assigned as early a date as the XVIIIth Egyptian dynasty, and so far the Egyptian series claims priority.

A large number of fragments of these small “Chevron” bottles was found in the ruins of Akhenaten’s capital at Tel-el-Amarna (B. C. 1400). Whether or not these were of Egyptian manufacture has been doubted; and the discoverer himself, Mr. Flinders-Petrie, calls them in his report “Ægean Glass.” What, however, can admit of no doubt, is that so far they are the earliest dated specimens known of that ware, and that there was a glass factory at Tel-el-Amarna, all the details and processes of which are illustrated by actual products in every stage of manufacture. Lumps of glass, frit of various colors, glass rods or strips, coloring matter, quartz pebbles used as silicate, beads, amulets, decorative ornaments of every description, with the very molds in which they were cast, have been recovered along with parts of the clay furnace in which the glass was fused. A full series from this ancient factory was obtained by the writer, at the time of the discovery, through the kindness of Mr. Flinders-Petrie, for the Free Museum of Science and Art in Philadelphia. It is the most instructive series in this country for the study of the manufacture of glass in the fifteenth century B. C.

Ancient glass was essentially a soda glass. The silicate used by the Egyptians was quartz, and the alkali was supplied from the salt lakes of the Delta in the form of ashes from marine plants or of natron, an impure carbonate of soda. While the Romans, like the Egyptians, used oxide of copper for coloring their glass, their deep diaphanous sapphire blue was probably obtained from cobalt.

Slabs of glass of great size were made for wall decoration in good imitation of the red Egyptian porphyry with white spots, or of the green serpentine from Taygetus with large white crystals of felspar. Such slabs were used especially for bathrooms. They were joined together in designs, the “opus sectile” of Roman authors, and are a sort of protomosaic product.

For red coloring, as well as blues and greens, oxide of copper was used. The ancients never reached the beautiful ruby red of the mediæval artists, which was obtained from oxide of iron or gold. Purple was obtained from
manganese oxide, and is found on Egyptian glazes of the 1st dynasty. It was, however, seldom used to color early glass. The suggestion has been made that perhaps the Egyptians found it difficult to reheat the frit without bringing about loss of color, owing to the strong oxidizing influence of the repeated exposure. Yellow was derived from ochre mixed with oxide of antimony, a substance known to the Egyptians from very early times and imported by the Semitic traders. The jacinth or honey red color was produced from oxide of iron.

While the Greeks never gave much heed to the glass industry—they had no special name for it and called it "fused stone"—and while they imported the products of Rhodes, Cyprus or Italy, glass was in use for decorative purposes in the Mycenean period. The frieze of the Men's Hall at Tiryns was studded with blue glass. Under analysis, Dr. Virchow found these studs to be soda glass colored with a copper oxide. Cobalt, however, is said to have been found in beads from Mycenae and from Attic tombs, and Helbig (Homerisches Epos, p. 80) suggests that this deep blue vitreous cobalt glass may represent the "Kyanos" of Homer. S. Y. S.

**SOME RARE EASTERN CARPETS**

Out of the J. Lees Williams Collection of Oriental Carpets, now on exhibition in the Museum, we have selected three examples to be used as illustrations in this issue of the Bulletin, and append a short description of each carpet. Much interest has been manifested in the exhibition of this collection. As an instance of this it may be remarked that a professor in the University of Wisconsin recently informed the Director of the Museum that, out of five days at his disposal for Philadelphia sightseeing, three of these days were devoted by the professor and his wife to the study of Eastern carpets exhibited in the Museum.

In the future it is intended that a catalogue of these rare carpets shall be made, in which the history of the art of weaving knotted works in the East will be examined at length and, in a measure, comprehensively. In the meantime we content ourselves in this issue of the Bulletin with a brief description of the three examples shown in the illustrations which follow.

The first illustration is that of a Prayer Carpet. It is Turkish, and tradition insists that prayer carpets of this design, color effect and texture could come only from the looms of Ghiordes. However this may be, it is certain that in this example we have before us one of the finest of that group of rare prayer carpets which has so long borne the name of Ghiordes that its right to this name will not be here questioned. There are several types of Turkish prayer carpets, all of them of more or less historic interest and artistic merit, but the right of the Ghiordes carpet to primacy in the group will hardly be disputed. A few prayer carpets belong to the fifteenth century (see No. 614 of the J. Lees Williams Collection now on exhibition in the Museum). Most of these carpets, however, are not earlier than the middle of the seventeenth century, to which period is assigned the example here illustrated. In some subtle way the weaver has imparted to the fabric a dignity and seriousness in keeping with the
GHIORDES (TURKISH) PRAYER CARPET
devotional use for which it was intended. The centre panel of solid color, old ivory, is artistically effective.

The second illustration is that of a fragment of a distinguished Persian Carpet of early date. It surely belongs to the early times of the Sefavides, and possibly antedates that period. Perhaps the distinguishing feature of this carpet is its marvelous fabrication. It is thick and heavy. So compactly have warp, woof and pile been driven together that the fabric is as smooth and hard on the under side as finished leather, while the upper or “pile” surface is likewise so hard and smooth as to give the impression that it is without pile. By this compact weaving a clari ty of outline was made possible which lends to the surface of the carpet a classic touch such as is found in pure Grecian architecture. Carpets which we know belong to the early Sefavides time, but of different fabrication, have been preserved in their entirety, but the writer knows of no carpet of this particular fabrication which does not bear such marks of destruction as to reduce it to fragments. This fact is difficult of explanation, as no carpet of the East of which we have any knowledge is more enduring in quality than is the class from which this fragment comes. The opinion held by some students of the art, that these carpets had their origin in a period antedating the Sefavides dynasty, is by no means groundless, and it is altogether possible that in this fragment we see represented a class of Eastern carpets the origin of which lies in the early fifteenth century. This early origin would account, in some measure at least, for the fragmentary condition of such examples of these rare old fabrics as are now to be discovered. It is not possible to convey to the reader, in black-and-white illustration, the wondrous color richness of this in every way remarkable fragment.

The last illustration is that of a so-called “Animal” Carpet. The rulers of the Sefavides dynasty appear to have found pleasure in the representation of animal figures in their regal carpets, and it is probable that the early carpets showing this kind of decoration were made for the court. As the old woolen carpets of this description appear to be of an earlier date than the rich and luxurious silk animal carpets of the late sixteenth and early seventeenth centuries, we may safely attribute the carpet now before us as belonging to the first half of the sixteenth century. Indeed, a comparison of fabrication, design and color treatment of this carpet with the carpets of the Shah Abbas period (1586-1628) shows unmistakably the deterioration of the latter fabrics, in which the strong and classic simplicity of the earlier carpets is sacrificed to elaboration and embellishment which, while undeniably carrying with it a certain kind of beauty, yet carries with it also the weakness of all over-elaboration. The use of animal figures in the decoration of the centre of the carpet, depicting a scene pregnant with energy and motion, is so wonderfully realistic that the purpose in the mind of the artist cannot be misunderstood. Frightened deer, flying birds and scurrying rabbits, all bent on seeking shelter from the beasts of prey, present a scene of forest animation only possible at the hands of the master artist. The border decoration is old and exhibits unmistakable Saracenic influence. As here wrought out it is strong, clear and classic, both in color combination and deft pile manipulation. Indeed, so clearly related to Saracenic art is the class of carpets to which this example belongs, that some
PERSIAN ANIMAL CARPET
authorities have tentatively suggested the place of their origin as being entirely outside of Persian territory (always conceding, of course, the presence of the influence of Persian art in the fabrics). On the whole, however, the weight of authority lies with those who attribute Persian origin to all the old animal carpets of this particular class. It is in such fabrics as this that animal, flower, and even color itself, stood as symbols of commanding significance with the Orientals of other centuries.

C. F. W.

THE ANCIENT PERUVIANS AS CARICATURISTS

Exhibited with the collection of old pewter are three examples of Peruvian figure work in lead, dating back probably to the Spanish Conquest. The central figure represents a man with mitre and crozier, apparently a Spanish bishop or abbot. Another is intended to portray a knight or soldier, holding in one hand a two-handled sword. On his head rests what appears to be a crown, while from his breast is suspended a crucifix. The third figure shows a member of the priesthood, carrying in one hand a chalice, while from his neck and waist are suspended crucifixes. These very interesting figures were doubtless intended by the native Peruvian artists to caricature the Spanish invaders. They are therefore particularly interesting not as examples of native Peruvian art, but as illustrating the post-incarial Peruvians' sense of humor in the exaggeration of the features and traits of their conquerors. These curious objects belong to the Dr. Robert H. Lamborn Collection.

The ancient Peruvians were perhaps the greatest caricaturists of all the Western nations, as revealed in their pottery, their textiles and their metal-work. In the valuable collection of Peruvian antiquities brought to Philadelphia by the Hon. J. Randolph Clay, who was United States Minister to that country nearly fifty years ago, are two bronze implements, one of them terminating in two figures of monkeys, dressed in Spanish costume and riding mules. Until a few years ago these instruments were believed to be knives or choppers, but it is now known that they were used for cutting the wool of llamas, alpacas and vicuñas, a Peruvian vase having been recently
discovered on which a man is depicted in the act of shearing a native animal with a similar tool.

E. A. B.
A PEWTER ÉCUELLE

Among the recent accessions to the pewter collection is an écuelle, or two-handled porringer, of French workmanship of the eighteenth century. The handles and cover are decorated with designs in relief, the top of the knob being embellished with a Roman head.

HAMMERED SHEET IRON FIGURES

An interesting exhibit in the collection of Japanese metal-work of this Museum consists of two figures of apes, one finished and the other partially completed, showing the possibilities of hammering sheet iron into shape by means of hand tools. The process, so far as we are able to judge by a careful examination of the figures, seems to have been as follows:

A flat piece of sheet iron of the requisite size was placed on the form which was to be reproduced, and which was made of a non-resisting material, probably iron or bronze. The flat piece of metal was beaten down over the surface of the figure, gradually taking the rude form of the model.

The process seems to have consisted almost entirely of hammering the surface of the sheet iron from the outside by means of various hand tools, forcing the thin metal into the depressions of the model. This seems to be proved by the fact that the unfinished specimen is about three-fourths of an inch higher than the finished figure.

The unfinished example measures ten and one-half inches in height, while the finished one is nine and three-fourths inches high. These pieces were procured from the Japan Exhibition Association at the St. Louis Exposition of 1904, having been wrought by Mr. T. Yamada, of Tokyo.
The Museum now has on exhibition two fine collections of antique watches, one known as the Bloomfield Moore Collection and the other as the Fleisher Collection. We show here two rare watches from the Bloomfield Moore Collection, one being what is known as a Tulip Watch, which, when closed, represents an opening tulip bud with three hinged glass petals, through one of which may be seen the face and through the other two the works. The stem, or ring for attachment to a chain, is made in the semblance of a twisted tulip stalk. This watch was made by Charles Bobinet, supposed to be of Paris, about 1650. The illustration represents the three glass petals of the tulip opened.

The second example figured is a small watch of Berlin manufacture, belonging to about the middle of the eighteenth century. It is especially noteworthy because of the beautiful, painted enamel case, which is signed by "Les deux frères Huaut," and is one of the rarest examples in the collection. Jean and Ami Huaut were Swiss enamels who were celebrated for their beautiful figure painting. They belong to a family who were noted as painters of enameled watch cases from the middle of the seventeenth to the middle of the eighteenth century. On the face of this beautiful example is painted a group consisting of mother and two children, and on the back a portrait of a lady of the period. Around the edge of the watch are four medallions enclosing landscapes, while the inside of the case is similarly decorated. The work is fully equal to the finest miniature painting, and will bear careful scrutiny through a glass.
NOTES

Mr. John H. Buck, the noted expert connected with the Metropolitan Museum of Art, has recently examined the collections of metal-work, including pewter and plate, and these collections are now being relabeled.

The friends of the Museum will be gratified to learn that Mrs. Cornelius Stevenson, Sc.D., has recently been appointed Assistant Curator in the Museum and Lecturer at the School. Hereafter Mrs. Stevenson will devote the greater part of her time to Museum and School work.

The textile room has been entirely rearranged, the collections of fabrics having been thoroughly classified and much undesirable material, the accumulation of thirty years, retired.

Mrs. Stevenson, assisted by the Honorary Curators of some of the special departments, will be at the Museum on certain days, the dates to be fixed later, for the purpose of conducting parties through the Museum and of furnishing such information relating to the exhibits as may be desired.

SCHOOL NEWS—The School has received the reproduction of the Marzocco by Donatello, presented by Miss Anna Blanchard, and it has been placed in the centre of the entrance lobby. The Signa Company of Florence, Italy, obtained special permission from the National Museum in that city to reproduce the base on which the lion stands, and this is supposed to be the only copy in America.

The demand for teachers of manual training and applied design made by various agencies, in the West particularly, has been very great, and as comparatively few young men are prepared to take positions of this class, they have not been filled. It is hoped that some plan can be effected to interest more fully qualified men to enter upon this course, in which there is so large a field.

The class in Interior Decoration has been given practical dem-
onstrations by inspecting various public buildings containing examples of decorative work, and, through the courtesy of Mr. McFadden and Mr. Darley, visits to their interesting houses.

In February a reception was given by the Alumni Association to Miss Sophie Bertha Steel, a former teacher of illustration in the School, and an exhibit of sketches and photographs made during her last year's travel in Egypt and Italy shown. The Association also invited Mr. M. Laurence Blumenthal, a former pupil, to meet the day and evening classes in Illustration, to which he gave a practical talk upon the subject of "The Business of Illustration," and exemplified the points by his own professional work, in process and in print, and the recital of his own experiences with authors and publishers.

The School exhibit to be sent to the International Art Congress to be held in London next summer, is being prepared. The purpose of the Congress is to discuss the best methods of teaching drawing and the problems of general art education. The work shown will be illustrative of these subjects as presented in the School.

It is proposed to establish at the School of Industrial Art of The Pennsylvania Museum, Philadelphia, a course in the training of curators for art, archaeological and industrial museums, under the supervision of Mrs. Cornelius Stevenson, Sc.D., who was for fifteen years Curator of the Egyptian and Mediterranean Section of the Free Museum of Science and Art of the University of Pennsylvania, and Secretary and later President of the Department of Archaeology of that institution. The rapid accumulation of collections in universities, in colleges in general, in special museums and in private possession has created a demand for competent directors, curators and assistants. This demand can only be supplied, as has been that for librarians, by educating students for the particular purpose. A general knowledge of art and its history, the development of the powers of observation, the training in scientific accuracy, in correct classification, in adequate labeling, in tasteful yet dignified presentation, in acquaintance with the best equipment for suitable display of each class of objects, the acquirement of the dexterity necessary to the proper handling of perishable material, the knowledge of the diseases to which such properties are liable and the best remedies to be applied, the recognition of spurious specimens, in short, the practical conduct of a museum and its wise administrative economy, all form a study which may well be termed "Museum Science," and a knowledge of which is essential to the high professional standing of a curator. At the School of the institution, Broad and Pine Streets, the requisite study of art as the element of fundamental importance in objects of value in this work will be carried on in connection with the classes in Ornament and Design, both historical and original, by means of lectures and the application of these to actual production. At the Museum of the institution in Memorial Hall the study of the identification, classification and exhibition of objects will be conducted and practical experience obtained in the understanding, care and management of collections. Both the School and the Museum possess libraries especially adapted to the purpose, available for reference and study. A copy of the syllabus for this course may be had on application.
### ACCESSIONS

**January—March, 1908**

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<td><strong>Antiquities</strong></td>
<td>Cork Model of Holyrood Castle, by Lloyd B. Hoppin</td>
<td>Given by Mr. Maurice Brix.</td>
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<td>Fan, Ivory, Chinese</td>
<td>Given by Mr. Thomas S. Harrison.</td>
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<td>Cup and Saucer, Porcelain, Loosdrecht, Holland, 1772-1784</td>
<td>Given by Mr. John T. Morris.</td>
</tr>
<tr>
<td></td>
<td>Vase, Pottery, Teco Ware, Chicago, 1854</td>
<td>Given by Mr. John T. Morris.</td>
</tr>
<tr>
<td><strong>Arms and Armor</strong></td>
<td>Collection of Figures, etc., Pottery, Egypt and Rome</td>
<td>Given by Mr. Thomas S. Harrison.</td>
</tr>
<tr>
<td><strong>Carvings</strong></td>
<td>Stone and White, Chinese, 18th Century</td>
<td>Given by Mr. Thomas S. Harrison.</td>
</tr>
<tr>
<td><strong>Ceramics</strong></td>
<td>Shaving Basin, Maiolica, Spain, 18th Century</td>
<td>Given by Mr. Thomas S. Harrison.</td>
</tr>
<tr>
<td></td>
<td>3 Fragments of Stamped Bricks, from &quot;Roma Vecchia,&quot; A. D. 118-133</td>
<td>Given by Mrs. William D. Frishmuth.</td>
</tr>
<tr>
<td></td>
<td>Cup, Pottery, Guadalajara, Mexico, 18th Century</td>
<td>Given by Prof. Charles E. Dana.</td>
</tr>
<tr>
<td></td>
<td>Plaque, Pottery, Souvenir of Jamestown Exhibition, Baltimore, Maryland, 1907</td>
<td>Given by Mr. Maurice Brix.</td>
</tr>
<tr>
<td></td>
<td>2 Tiles, Pottery, Spain, 18th Century</td>
<td>Bought.</td>
</tr>
<tr>
<td></td>
<td>Vase, Pottery, Mocha Ware, Staffordshire, England, c, 1820</td>
<td>Bought.</td>
</tr>
<tr>
<td></td>
<td>Plaque, Pottery, Tortoise Shell, Portugal, Early 19th Century</td>
<td>Bought—Special Museum Fund.</td>
</tr>
<tr>
<td></td>
<td>Jar, Pottery, Isleta, New Mexico</td>
<td>Bought—Special Museum Fund.</td>
</tr>
<tr>
<td></td>
<td>Jug, Stoneware, Salt Glazed, Grenzhausen, Germany, 18th Century</td>
<td>Lent.</td>
</tr>
<tr>
<td></td>
<td>Water Bottle, Pottery, Guadalajara, Mexico</td>
<td>Lent.</td>
</tr>
<tr>
<td></td>
<td>Water Bottle, Pottery, Modern Moorish</td>
<td>Lent.</td>
</tr>
<tr>
<td><strong>Enamels</strong></td>
<td>Dish, Germany, 18th Century</td>
<td>Bought—Special Museum Fund.</td>
</tr>
<tr>
<td><strong>Furniture</strong></td>
<td>Table, Carved and Inlaid, Chinese</td>
<td>Given by Mrs. William D. Frishmuth.</td>
</tr>
<tr>
<td><strong>Glass</strong></td>
<td>Chair, Carved Walnut, England</td>
<td>Lent.</td>
</tr>
<tr>
<td><strong>Jewelry</strong></td>
<td>Vase, Carved by Louis C. Tiffany, New York</td>
<td>Lent.</td>
</tr>
<tr>
<td><strong>Metal Work</strong></td>
<td>2 Knobs, Brass, Florence, Italy, 18th Century</td>
<td>Lent.</td>
</tr>
<tr>
<td><strong>Mosaics</strong></td>
<td>Ecuelle, Pewter, France, 18th Century</td>
<td>Bought—Special Museum Fund.</td>
</tr>
<tr>
<td><strong>Musical Instruments</strong></td>
<td>Harp Guitar, England, Early 19th Century</td>
<td>Given by Mr. Thomas S. Harrison.</td>
</tr>
<tr>
<td></td>
<td>Piano, Made by E. N. Scherr, Philadelphia, Pa., c. 1800</td>
<td>Bought—Special Museum Fund.</td>
</tr>
<tr>
<td></td>
<td>2 Lutes (Ba-la-la-ka), Russia</td>
<td>Given by Prof. Charles E. Dana.</td>
</tr>
<tr>
<td><strong>Paints</strong></td>
<td>Wall Hanging, Embroidered, Delhi, India, Modern</td>
<td>Bought—Special Museum Fund.</td>
</tr>
<tr>
<td><strong>Textiles</strong></td>
<td>Pack of Playing Cards, France, c. 1830</td>
<td>Given by Miss Elizabeth E. Burtt.</td>
</tr>
<tr>
<td><strong>Vehicles</strong></td>
<td>Veil, Lace, Blond, Spain, c. 1800</td>
<td>Given by Mr. John H. McFadden.</td>
</tr>
<tr>
<td></td>
<td>Gimps, Galons and Fringes, France and Italy, 17th and 18th Centuries.</td>
<td>Given by Mr. Samuel B. Dean.</td>
</tr>
<tr>
<td></td>
<td>5 Examples of Old Lace</td>
<td>Given by Mrs. John Biddle Porter.</td>
</tr>
<tr>
<td></td>
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<td>Given by Mrs. John Leland, through Mrs. John Harrison.</td>
</tr>
</tbody>
</table>
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