opportunity which it affords for research along many lines following the development of human thought and the history of human institutions is becoming more and more valuable as a part of the educational equipment of the University. The collections provide scholars with materials of investigation that are otherwise only found in the great Museums of the world. Egypt, Babylonia, Crete, Peru and the nameless nations of antiquity are represented in these collections for whoever is interested in the records of the past. The collections from the heart of Africa, Australia, Borneo and from the aboriginal peoples of North and South America invite the labors of him who would help trace the early history of the arts, or the relationships between the different peoples of the earth and between the different periods of development. These are a few of the many subjects for research to be found in the Museum, and the presence of so much material for investigation cannot fail to act as an inspiration for those who have the ability and the inclination to devote themselves to scientific research along these lines of peculiar interest.

TWO BLACK-FIGURED AMPHORÆ WITH SCENES PORTRAYING THE BIRTH OF ATHENA.

WHEN, in 1904, the great German archæologist, Adolf Furtwaengler, paid a visit to this Museum, his attention was attracted by two large Greek amphoræ or wine-jars, decorated with scenes portraying the birth of the goddess Athena. Upon his return to Europe, Furtwaengler presented at a meeting of the Munich Academy of Science a report of the more important antiquities he had seen in American museums and among them included these two amphoræ, shown in the accompanying illustrations. They were excavated from an Etruscan tomb at Orvieto in 1907 by Mr. A. L. Frothingham and were acquired for the Museum through the generosity of Mr. John Wanamaker. At the time of their discovery, they were broken into many small fragments; these were afterward joined together and pieced out at the Museum.

Nearly a century has now passed since the first Greek vases were recovered from Etruscan tombs. In 1829, a German scholar wrote as follows to the *Prussian Gazette* about discoveries then being made in Etruria: "Your correspondent who speaks as an eye-witness can

never forget the wonderful spectacle when he first beheld from the hill of Campo Morto the numerous excavations scattered over the neighboring plain on all sides, with the huge tumulus in the center. On closer examination his astonishment only increased. The various bands of laborers, who had come from distant parts, chiefly from the

FIG. 33.—Amphora A. Height 22¾ in.

Abruzzi and Romagna, were distributed under foremen from their own provinces; and three tents formed the central point into which poured the incessant stream of newly found vases or vase-fragments still covered with damp soil. Attempts were made at once to put the fragments together in the tent occupied daily by the prince (the Prince de Canino) and his family; these were then sent to Musignano,

the prince's country house, and handed over to experienced restorers. Their work continued day and night; your correspondent was greatly surprised to see one morning two beautiful large vases restored, which he had seen in fragments at the excavations the previous afternoon. The prince devoted all his time to the remarkable discoveries on his property which yielded in a few months one of the finest collections of vases known to us. The study of these extraordinary discoveries and monuments proved sufficiently fascinating to induce him to undertake their interpretation."

FIG. 34.—Obverse of Amphora A. The Birth of Athena.

The mythological scenes portrayed on these vases gave rise at first to curious interpretations. The Prince of Canino, aided by his German chaplain, took Dionysos for Noah and read the name of the potter Exekias as Exekiel. Great progress has been made of course since these first thrilling discoveries in the study of antique painted vases. The provenience can now be determined; although found in Etruria these painted vases are not, as was at first thought, Etruscan, but are the products of Attic potteries. Again the date of Greek vases can be settled with a fair degree of accuracy on the basis

of technique, inscriptions, artistic style, and subject of decoration. And lastly the scenes painted upon them can now be correctly intrepreted, thanks to the century of scholarship which has been expended upon them and which has thrown a flood of light on the study of mythology and of Greek private life.

The two vases under consideration are good examples of both the perfection of form and the skill in decoration attained by Greek potters. The subject of form may be dismissed with the single

FIG. 35.—Reverse of Amphora A. The Reception of Athena in Olympus.

observation that entire simplicity is here combined with the greatest utility. The decoration is, of course, that which chiefly concerns us. It is confined on either vase to two panels on the shoulder and to a zone of ray-pattern just above the foot. The background of the panels is the warm red of the Attic clay; the figures are painted in black with the addition of purple, of white, and of incised lines for the details. With the exception of the decorated parts, the surface of these vases is entirely covered with the same black glaze-paint which is used for the figures of the panels, a glaze which cannot be either equalled or imitated to-day.

The period in which such black-figured vases were manufactured corresponds roughly with the sixth century B. C., and throughout this period the miraculous birth of Athena was a favorite subject. In literature, references to this divine event occur as early as the time of Homer. More explicit statements are made in Hesiod and in Pin-

FIG. 36.—Amphora B. Height 21¼ in.

dar, and in the Homeric hymn to Athena we find the following detailed description: "the counsellor Zeus from out his holy head himself did bear her, in all her panoply of arms, golden and very bright, and wonder possessed all the immortals as they beheld. Forth before Zeus she suddenly sprang, forth from his immortal head, brandishing her sharp spear and great Olympus resounded terribly at the wrath

of the gray-eyed goddess, and the earth gave back a fearful sound and all the sea was stirred and its purple waves confounded. . . . and the bright son of Hyperion stayed his horses for a space, and the counsellor Zeus rejoiced." In vase-painting the subject is reproduced some forty times. The two vases before us afford an excellent opportunity of studying the current version of the myth, as conceived by Attic artists.

On the obverse of amphora A (Figs. 33 and 34), the center of the panel is occupied by Zeus who sits upon a richly carved throne, his feet upon a footstool; a thunderbolt is held in his right hand, and with his

FIG. 37.—Obverse of Amphora B. The Birth of Athena.

left hand he supports Athena who stands upon his knee. The moment depicted is that which immediately follows the miraculous birth. This is indicated by the small size of the goddess, by the attitude of the little Niké beneath the throne of Zeus, whose very presence as well as her gesture of annunciation proclaim the great event, and by the attitude of adoration assumed by Eileithyia the goddess of childbirth who has come to support Zeus in his travail. Behind this deity stands Ares, fully armed, his dog beside him. On the left of the scene behind the throne of Zeus is Apollo with his lyre ready to celebrate in song the divine birth. The other figure on the extreme left cannot be identified inasmuch as a large part of it has been

restored. It might be thought that the inscriptions would serve to identify these figures, but unfortunately they do not make sense but are added merely for decorative effect. Of thirty-five vases, portraying the birth of Athena, which were studied in 1880 by Robert Schneider, only five show Athena standing on the knee of Zeus as in this vase. The others represent either the moment before the birth when Zeus is still laboring in the throes of childbirth or the actual moment of the birth when Athena is emerging from his head. This type of scene is therefore comparatively rare.

The artistic merit of this portrayal should not be overlooked.

FIG. 38.—Reverse of Amphora B. Chariot and Warriors.

The illustrations give but a faint notion of the charm of the painting which, though bound by convention, is yet full of originality, and which tells its story with a childlike earnestness and honesty which compel our admiration.

The reverse of the amphora (Fig. 35) shows the entrance of Athena to the circle of the gods. Unfortunately many pieces from this side of the vase are lacking, but enough remains to show Athena seated beside her father on his throne, and surrounded by deities. Before them are Ares and Eileithyia, still in an attitude of adoration, together with other gods whose identity is not clear. Behind the throne are Poseidon and Amphitrite.

The birth scene on amphora B (Figs. 36 and 37) differs in several

respects from that already described. The birth takes place in the presence of a larger number of deities; two Eileithyiae instead of one confront Zeus, together with Ares, and Dionysos wearing a garland of ivy. Behind Zeus stand Apollo, Poseidon, Amphitrite, and Hermes. The moment depicted is here the actual moment of birth when Athena is springing from the head of Zeus. The sister goddesses of childbirth have still their left hands upraised with palms held uppermost in a gesture which seems either to invoke aid or to betoken astonishment. This scene, accordingly, conforms to the more usual type. It contains, however, one feature entirely new. The space beneath the throne of Zeus is filled here not by a Niké but by a little goblin with a human body, the wings of a bird, and the head of a dolphin. Was the presence of this extraordinary little creature supposed to augur well for the birth, did his dolphin's head symbolize the river Triton where the birth took place or was he inserted merely at the caprice of the artist?

The reverse of this amphora (Fig. 38) is decorated with a group of warriors and a four-horse chariot.

Such is the dramatic bit of Greek theology which these vase-paintings portray in so lively a manner. They serve also another purpose. It is a well known fact that the birth of Athena was the subject of the west pediment of the Parthenon. It was also represented in a painting made by Cleanthes of Corinth for a temple of Artemis not far from Olympia, and in a bronze relief by Gitiades in the Chalkioikos at Sparta. These great monuments of art have perished but of their character and artistic charm we can get some conception from the vase-paintings left to us, which, though they date from a period considerably anterior to that of the Parthenon, may yet be held to conform to a scheme which early became stereotyped and afterward was repeated with alterations in later representations of the subject.

E. H. H.