

**ARCHÆOLOGICAL DISCOVERIES IN NORTHERN AFRICA.**

Northern Africa has always been a fascinating country to archæologists. France is here carrying on with energy the great work of retrospective exploration that has been so fertile in results for the last fifteen years.

French Africa has now several fine museums that might be envied by many cities of France, and among which may be mentioned that of Bardo, near Tunis, that of Saint Louis, at Carthage, and the one at Algiers inaugurated in 1896 upon a hill of Mustapha.

Accident sometimes seconds the efforts of scientists. During the demolition of the Arabic and Turkish fortifications at Algiers, there were discovered the debris of the Roman rampart of Icosium, and, on the other side of the gulf, at Cape Matifou, numerous funereal steles and votive objects derived from ancient Rusguniæ. At Castiglione there is a Christian basilica in which has been found an interesting crypt and some baptismal fonts in the shape of a cross. At Cherchell, M. Wailly is still carrying on the series of excavations that he has been making for several years. Here there have been found a number of statues and some portraits of the last kings of Mauritania. At Collo, Captain Helo has explored a Punic necropolis of the second and third centuries before our era. At Setif, Lt.-Col. De la Combe has disengaged the ruins of a Roman villa and a small cemetery surrounded with walls, in the center of which stands an edifice composed of several chambers with mosaic pavements. Finally, Tingad continues to emerge from the earth, district by district. The service of historic monuments has here cleared away the region in the vicinity of the capital.

Tunis is year by year revealing to us a little more of its past. Archæology has now thrown some light even upon the old indigenous civilizations. M. Hamy has studied the Berber necropolises of Enfida, and especially Heuchir-el-Hassel, the largest one. The tombs consist of cylindrical bases that support steps in the form of a low cone surmounted by a large slab. M. Leroy has recognized the existence of analogous monuments in the open desert to the southwest of Biskra, on the Wed Djedi side.

M. Novak has explored the Phœnician necropolis of Mahedia. Through a rectangular well provided with a stairway, a descent is made into the tombs, each of which comprises one or two vaults wherein the bodies were laid out upon the floor or upon benches or else deposited in graves.

The Roman ruins of Tunis often afford our explorers agreeable surprises. Here, for some time past, there have been met with works of a fine industrial art, if not of art properly so called. At Soussa, upon the site of a rich villa of the first century of our era, Captain Dupont has discovered quite a collection of handsome mosaics. At the entrance there are flowers and fruits and fishing scenes; upon a wall of the hallway, a marine landscape; in the dining room, a true painting representing the Rape of Ganymede; and, all around, medallions in which figure birds, quadrupeds and fishes. In one of the wings there is a large fresco representing the Triumph of Bacchus.

But the most valuable finds of this kind are those made at Oudna. Here, M. Ganckler has unearthed several houses, especially a vast villa of the first century of our era—the villa of the Laberii, decorated with exceptional magnificence. There are here nearly a hundred figure mosaics, many of which have been carried to the Bardo museum. The collection embraces an extraordinary variety of subjects, such as mythological scenes, representations of divinities, figures of animals and plants, farm buildings, scenes of domestic life, and of fishing, hunting, etc. Nowhere else can we so well appreciate what the art of mosaics was in Roman Africa.

During the work of dredging in the port of Bizerte there were fished up numerous antique objects derived from shipwrecked vessels, and especially a magnificent patera with reliefs of very delicate workmanship representing different mythological scenes.

To the Christian epoch belong several interesting monuments which have been studied. At Sicca Veneria (Le Kef) the service of Tunisian antiquities has uncovered the basilica of Saint Peter, which appears to date back to the beginning of the fifth century. At Hadjeb-el-Aioun, to the southwest of Kairouan, there has been unearthed another and very richly decorated basilica. The atrium of this had a mosaic pavement, and the walls of the nave, of the apsis and of the vestries were ornamented with paintings or covered with tiles of terra cotta.

These various African civilizations are met with at Carthage. Not so long ago it was stated that the very ruins of the latter have perished. This is not en-

tirely true. The labors of archæologists have decided against the skepticism of the poets. Although the ground of Carthage has been explored for a long time, it seems to be inexhaustible.

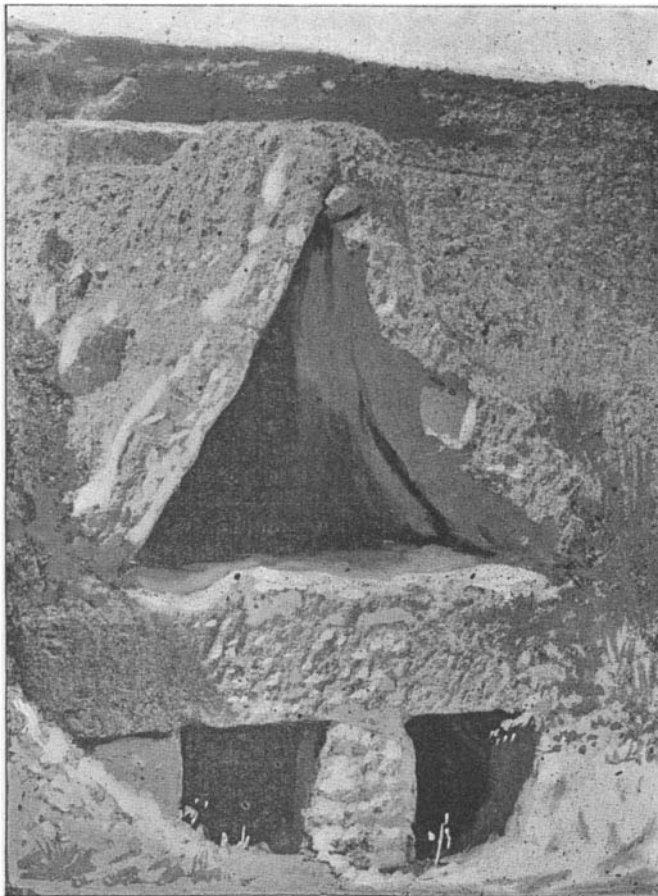
Father Delattre, whose domain this is, has gradually revealed the history of the great city. In recent years he has examined the different Punic necropolises in succession, and has completed his researches in the sepulchres of Saint Louis and Bordj-Djedid. He has opened 800 tombs in the district of Douimes alone. The same arrangement is found almost every-



ENDYMION AND SELENE—MOSAIC DISCOVERED AT OUDNA, TUNIS.

where: Chambers formed in the sandstone, closed by one or more slabs, and into which a descent is made through a well several feet in depth; in each chamber two graves, in each grave two bodies. There are everywhere lamps, pottery, rude vases of diverse forms, plates, and sometimes objects that show Egyptian or Phœnician influence.

To the west of the city, Father Delattre and M. Ganckler have explored a new cemetery of the employes of the imperial administration. Here and there have been collected mosaics and a few Roman marbles,



PUNIC TOMB AT CARTHAGE.

and, among others, a statue of Empress Julia Domna as a muse.

Under the hill of Saint Louis there has been discovered an old subterranean chapel, which is reached by a stairway. The walls of this crypt bear traces of frescoes and of numerous Christian monograms, carved by old pilgrims. It was doubtless an old dungeon, consecrated by the sufferings of martyrs.

Finally, Father Delattre has attacked the amphitheater, of which he has already cleared away the arena. This structure is not in such a state of ruin as

has been supposed. It has nearly the dimensions of the Coliseum. The excavations promise to be fertile in results. There have already been found many coins and pieces of pottery, objects of all kinds and a series of curious inscriptions upon sheets of lead. What remains of this celebrated amphitheater, made illustrious by so much heroism, will soon be rendered up to us.—*Revue Encyclopedique.*

**A Method of Detecting Alterations in Manuscripts.**

A new use for the vapor of iodine has been found by Prof. Bruylants, of Louvain. By its aid alterations in manuscripts can be detected. It appears that when a sheet of paper which has been sized and finished is moistened and then exposed, after thorough drying, to the action of vapor of iodine, the portion which has been moistened assumes a violet tint, while the remaining portion of the surface appears a brownish yellow. This principle may be used to produce a sympathetic writing, since if we write with water upon the surface of paper treated with ordinary size, the writing will appear in a violet color when the dry paper is exposed to the vapor of iodine. The pale violet upon a yellow ground becomes a deep blue on a pale blue surface, when the paper is again moistened and the characters disappear altogether under the action of sulphurous acid. When a manuscript is suspected of having been fraudulently retouched or altered, the use of the vapor of iodine will often serve to reveal the nature and extent of the alterations. Those portions which have been rubbed will become brownish in tint, and, when a rubbed surface is moistened after exposure to the iodine, it takes a blue color, varying in intensity according to the duration of the exposure. The outline of the rubbed portions remains perfectly distinct after drying, being paler in tint than the rest of the surface. This action is evidently due to the removal of a portion of the starch contained in the size. These reactions also appear upon paper which

has been entirely moistened and dried, as in the case of a letter copied in a press, but the indications are somewhat less distinct. The process will also reveal the existence of pencil marks erased by rubbing. Apart from any traces of plumbago which may have remained, the path of the pencil point disturbs the surface of the paper, as would any blunt instrument, and even when the rubbing has been so carefully performed that it has not removed any portion of the surface paper, the marks are made entirely legible when exposed to the iodine vapor. The clearness of all these reactions depends upon the character of the paper, and that which contains the smallest quantity of sizing material will naturally give the least brilliant effects; but in every case the changes above described will appear to a greater or less degree, and the use of the reagent in skillful hands should give material aid in clearing up disputed questions of this nature.—*The (London) Architect.*

**An Interesting Dog Anecdote.**

In Mr. Heckethorn's interesting work entitled "Lincoln's Inn Fields and the Localities Adjacent" there is an interesting dog anecdote which is vouched for by reliable witnesses. In the board room of King's College Hospital there is a painting which is a replica of one painted by the celebrated dog painter Yates Carrington and exhibited at the Royal Academy, 1888. It represents an event which occurred on August 1, 1887. On that Sunday morning the hospital watchman heard a dog barking at the door; intending to drive him away, he went to the door, but, instead of one, he found three dogs there. Two fox terriers ran away as soon as the door was opened, leaving behind them a long-haired black collie, with a gaping wound three inches long in his right fore leg, bleeding profusely. The dog was treated as an outdoor patient, his wound was dressed and bandaged, and eventually he went away. Mr. Carrington heard of the story and decided to represent it on canvas. A thick path of blood was still on the hospital steps. Starting thence, Mr. Carrington and the secretary traced the blood all around the back of the hospital to Yates Court. In the boarding between the court and the inclosure of the Law Courts there was a hole just large enough to admit the dog. Below the hole was a piece of glass. While the gentlemen were examining the spot, a well-known bookseller came out and informed them that the two terriers which were actors in the drama were his, and he explained their conduct by stating that living constantly so near the hospital, and having during the day the free run of the neighborhood, they must often have seen patients who had met with accidents in the streets taken to the hospital and that they utilized this knowledge for the benefit of their friend the collie, who frequently passed their street.