

## Abandoned Scenes of Ancient History

Archaeology

The remains of ancient civilization are one of the features of Europe. This part of the Empire.

Italy—*Fiesole*: Ruins of the old Roman theater in the Etruscan civilization. *Verona*: Finely inclined traveler. Some of the best preserved Roman amphitheater. *Rome*: Focusing point for the old Roman Empire today, just as 2,000 years ago.

ENGLAND—*Hadrian's Wall*: Most years ago. The forum excavations of the course of this 73-mile wall now in progress are real "news" of the course of this famous ancient Rome. *Naples*: Pompeii and ruins of the forts, castles, and *Herculaneum* nearby. *Sicily*—*Taormina*, *Syracuse*, and *Stone-Girgenti*: Greek architecture and the circle of Greek art in a setting of un-giant monoliths used in primitive usual beauty.

MALTA—Fine specimens of stone of ancient Britain. *Silchester*: a complete Roman town.

GREECE—*Delphi*: All that is left of the shrine of the oracle, in its wild, "City of ruins and roses" with many impressive setting. *Olympia*: Where objects from the bronze and iron the famous Olympic games were instituted. *Athens*: Temples, stoas, arches, and other celebrated examples: Gallo-Roman ruins of once places: flourishing colonial cities.

FRANCE — *Avignon* and nearby arches, and other celebrated examples: Gallo-Roman ruins of once places: flourishing colonial cities.

SPAIN—*Seville*: At the suburb of *Italica*, birthplace of three Roman emperors, are the ruins of a Roman amphitheater and aqueduct. *Merida*: and fine architecture. *Epidaurus*: "The Rome of Spain," contains the most

## The Planetarium Miracle

Astronomy

To see the stars visible from the north or south pole, or any place between; to see the stars as they appeared to the ancient Egyptians; or, perhaps, to see the celestial phenomena of an entire year take place before your eyes in seven seconds—such is the miracle now possible to visitors in Germany.

The instrument that makes this possible, the planetarium, is, with the exception of the greatest astronomical telescopes, the most complicated, the most expensive, and also, undoubtedly, the most ingenious optical instrument ever constructed. Certainly it is the finest aid to the study of the stars that the world has ever seen.

Since it was first demonstrated a few years ago, planetariums have been installed in numerous German cities, and in Vienna, but it is the one in Berlin that the average American visitor will probably find most convenient. Situated in the *Zoologischer Garten*, just opposite the station of the *Stadtbahn*, it is easily reached. Even if the visitor can not understand German easily, or get an interpreter to accompany him, the planetarium should not be missed. The constellations are the same to all languages.

Among the other cities where the planetarium can

## The Baedeker of Bugs

Entomology

Information from Dr. L. O. Howard, for many years chief of the Bureau of Entomology, U. S. Department of Agriculture.

Entomologists who go abroad this summer would do well to have their trip over before August, or to postpone it until early autumn; for most of entomological Europe will be in America during that month, to attend the International Congress of Entomology at Ithaca, N. Y. It might well be a privilege worth waiting for, to attend this meeting and then to sail on the same ship with a few congenial transatlantic cronies in entomology.

Once ashore, there are plenty of places where the person interested in insects may find much to interest him—enough entomological shrines so that one might, if he wished, spend his whole summer on them, without seeing a single art gallery or cathedral or ruin.

From the point of view of the popular natural history of insects, perhaps the European entomological Mecca would be the home of J. Henri Fabre at *Serignan*, in the south of France. This has been made a national museum; it can be

reached by motor from *Arles* or *Avignon*.

A combination of popular and technical interest is offered by the new vivarium in the *Jardin des Plantes*, in *Paris*. Here, in the great garden that was the scene of the labors of many of France's most brilliant biologists, insects are kept in as nearly optimum surroundings as can be attained under a roof, and at the same time are made available for intimate observation by the visitor. Nor should the entomologist omit the Museum of Natural History, on the *Rue de Buffon*. And he who spends part of his summer in the blessed land of Brittany must by all means see the *Oberthur* collection at *Remmes*.

In *London* one goes, of course, to the British Museum of Natural History in any case; its collections are among the most notable in the world. At *Oxford* is the famous *Hope* collection, of which J. O. Westwood was once curator. One of the strangest of combinations—butterflies and fleas—dominates the great *Rothschild* Museum collections at *Tring*. (Turn to next page)

## Zoological Gardens

Zoology

Information from Dr. W. M. Mann, director of the National Zoological Park, Washington, D. C.

Mammals, birds, reptiles, amphibians, fishes and insects, strange to the country, can be found in most of the large cities of Europe. In many of the small cities there are creditable animal collections of great interest to the inhabitants.

Some of the interesting exhibits that would be well worth the scientific traveler's attention are:

LONDON: Specimen of *Takin*; wonderful new reptile house; *Mappin Terraces*, with mountain climbing animals; magnificent aquarium.

STELLINGEN near Hamburg: Open air panorama of African game animals.

JARDIN DES PLANTES, Paris: New vivarium with remarkable collection of insects and other invertebrates.

ROME: Five barless pits containing carnivores.

DUBLIN: Remarkable for the many lions bred in captivity.

EDINBURGH: Breeding penguins.

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## Planetarium—Continued

be seen are Jena, home of the great Carl Zeiss Optical Works, makers of the planetarium as well as of all sorts of other optical instruments, and which well repay a visit; Munich, at the *Deutsches Museum*, for which the first one was constructed; Barmen, Dresden, Leipzig, Düsseldorf, Hannover and Mannheim. At practically all of these an admission charge of one mark is made. A word of caution is in order regarding the Munich planetarium. The *Deutsches Museum* is the finest of all technical museums, and deserves a visit of at least several days. However, the planetarium there is an early type, lacking some of the refinements of the later models, and in a dome that has proven too small to show it to advantage. To fully appreciate what the instrument can do, one should see it as it is in Berlin or Jena.

The planetarium consists of 119 magic lanterns in one. These project the stars, the sun, the moon and the planets on the inside of a white cloth-lined dome, about 90 ft. in diameter, but so realistic is the effect that the visitor seems to be actually out of doors under the sky depicted.

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## Old World History—Continued

famous sanctuary of Aesculapius, god of healing; also the ruins of the best preserved theater in Greece. *Mycenae*: Ruins of the old fortress, and nearby, at Dendra, are the royal beehive tombs that have recently revealed remarkable possessions of long forgotten kings. *Sparta*: More famous Greek ruins.

CRETE—*Knossos*: The beautiful palace of Minos and other remains of the strange Cretan civilization.

ASIA MINOR—*Troy*: Nine layers of civilization, including the sixth city, which attained historic fame.

PALESTINE AND SYRIA—*Jerusalem*: Many sites and remains associated with Hebrew and Christian history and with Roman rule. *Byblos*: A crusader's castle and ancient temples. *Baalbek*: The massive, towering Temple of the Sun, the Temple of Bacchus, and other impressive ruins. *Palmyra*: Many ruins of many ages can be seen at this once important desert city.

EGYPT—*Gizeh*: The well known pyramids, and the sphinx, which has recently been dug out of the sand and can be completely seen for the first time in 1,700 years. *Sakkhara*: The step pyramid, oldest of the great pyramid tombs. Recent excavations led to the discovery of the tomb of

the famous royal architect Imhotep, and what is believed to be the tomb of King Zoser himself. *Valley of the Kings*: Particularly, of course the tomb of Tutankhamon. *Tell-el-Amarna*: The unfinished city built by the predecessor of Tutankhamon. *Abydos*: The great "Tomb of Osiris," shrine of the Egyptian god of immortality. *Luxor*: Temples and statues of Thebes, "the mysterious city," a great wealth of archaeological evidence from Egypt's civilization. *Philae*: Island sacred to Isis, containing beautiful temples.

NORTH AFRICA—*Timgad*: Extensive ruins of an African Roman colony. *Carthage*: One of the great sites of history, just beginning to be revealed through excavations at the precinct of Tanit.

Museums of archaeological interest include those at: London, Edinburgh, Oslo, Stockholm, Copenhagen, Brussels, Paris, Bordeaux, Madrid, Rome, Naples, Florence, Bologna, Delphi, Athens, Olympia, Candia, Alexandria, Cairo.

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The United States had 91,000 forest fires in 1926, and the greatest cause was smokers, with sparks from railroads as the second cause.

## Bædeker of Bugs—Continued

In Belgium the best of the insects are in the Natural History Museum at *Brussels*. This museum is one of the most remarkable in the world. Built like a huge amphitheater, it offers to the first glance of the entering visitor a sweeping vista of everything that lives on this planet.

One does not commonly think of Spain as a leader in scientific work; yet at least one collection in the Natural History Museum at *Madrid* will repay a visit by the entomologically-minded visitor. This is the collection of grasshoppers and their allies, accumulated by Prof. Ignacio Bolivar. In Italy the two centers of insect interest are the Bezzi collections at the University of *Turin*, and the great Gestro collections, especially those of beetles, in the Natural History Museum in *Genoa*.

In what was once the Austro-Hungarian Empire the disturbances caused by the post-war breakup have subsided sufficiently to allow good work in entomology to be done again. The traveler will want to see the collections at the Zoological-Botanical Museum in *Vienna*, the very large post-war collections of Dr.

J. Obenberger at *Prague*, and the work that is going on under Drs. Szitady, Horvath, Kertysz and Mocsary at the Natural History Museum in *Budapest*.

In Germany entomology, like all the other sciences, goes forward with a vim and energy indistinguishable from the pre-war days. The most accessible collections in *Berlin* are those at the Zoological Museum. For economic entomologists, great interest attaches to the work of Dr. Albrecht Haase on parasitic insects, at the laboratories of the Biologisches Reichsanstalt, *Berlin-Dahlem*. At *Dresden* there is a great collection of Lepidoptera at the Ethnologisches Museum, in charge of Dr. K. M. Heller. One of the finest exhibits to be found anywhere of the work of injurious insects is to be found in the Forest Institute at *Munich*.

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A family in which the male tendency is so strong that in four generations there have been 35 sons and no daughters has been discovered in a California city.