

Cairo, built by the same sultan, is also very beautiful, and remarkable for its carvings and mosaics.

It should be observed that the magnificent mosques of Egypt, as of other countries, owe little or nothing to the native architectural talent of the Arabs themselves. Their own buildings at the time of the Prophet were of the simplest and rudest description, but they were always ready to make use of the architectural skill and constructive power of the people they conquered.

The earlier buildings of Egypt are mainly the product of Coptic and Byzantine skill, while rather later the art of Persia, both in its general designs and details of workmanship, exercised a paramount influence over the whole Moslem world. Another influence must not be forgotten, that of French and English Gothic, produced by the buildings erected by the crusaders during their occupation of Palestine. One of the Cairo mosques, that of Kalaún, possesses a fine arched doorway, taken from a Christian church at Acre—a fine specimen of Early English work, which would not be out of place in Salisbury Cathedral. Moslem translations of the clustered jamb-shafts and deep arch-mouldings of this style often occur.

The rest of northern Africa contains many mosques of great size and splendour; among these the most important, in addition to those already mentioned as having the normal plan, are—(1) the mosque-tomb of Abdallah b. Wadib in Kairawán, Tunis, a very large building, containing several courts and cloisters, dating from the same early period as the other great mosque in Kairawán; its minaret is covered outside with fine blue and green tiles; (2) the great mosque of Algiers, 10th century; and (3) that of Tlemcen, in the extreme west of Algeria, built in the middle of the 12th century; this has a very splendid pavement, partly composed of Algerian onyx, and a beautiful bronze chandelier, 8 feet in diameter, given by Sultan Yarmorak, 1243-83.

In Spain, at Zahra near Cordova, was one of the grandest of the early mosques, finished in 941; but nothing of it now exists. Several churches in Spain were originally built as mosques, such as S. Cristo de la Luz at Toledo, a small, nearly square building, roofed by dome-like vaulting on marble pillars.

In Persia but little now remains of the magnificent early mosques, built with such splendour, especially during the reign of Hárún al-Rashid. At Erzeroum there is a fine mosque, combined with tomb and hospital, almost Early Gothic in style, dating from the 13th century.¹ At Tabriz there is another church-like mosque, evidently the work of Byzantine builders; according to Texier, this belongs to the 16th century, but it is probably two or three hundred years earlier.

The mosque of Hounen, near Casarea in Cilicia, is a fine large rectangular building, covered with low domes on square piers. It dates from the second half of the 12th century.

At Tehekirge near Broussa is a very remarkable mosque—that of Murad I., built in the 13th century, almost in the style of contemporary Italian Gothic. Its main façade bears an extraordinary resemblance to one of the earlier Sieneese palaces.

The later capital of Persia—Ispahan—became the centre of the highest development of the Persian arts under Shah 'Abbás I., 1585-1629; to this period belongs the splendid mosque called Masjid Shah, a strangely-planned building of great size, executed in the most sumptuous way, inside and out, by wall-coverings of the finest Persian enamelled tiles. The mosque of Sultan Hosein, built as late as 1730, preserves much of the old beauty of design and decoration.

India is especially rich in mosques of great size and beauty. The earlier ones are much influenced by the still older Hindu architecture, and some of the larger mosques are built of materials from the old Jain temples. It is recorded that twenty-seven Hindu temples were destroyed to build the great mosque in Old Delhi, erected 1196 to 1235, which presents a curious mixture of the semi-barbarous Hindu carved work with the more refined and graceful decoration of the Moslem builders. This great mosque is on the normal plan, as is the 13th century mosque at Ajmir, also

¹ See Texier, *L'Arménie et la Perse*, 1842-52; Coste, *Monuments Modernes de la Perse*, 1867; Flandin and Coste, *Voyage en Perse*, 1843-54.

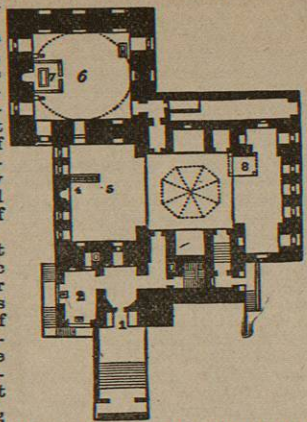


FIG. 3.—Mosque-tomb of Sultan Kát-Bey, Cairo.

1. Main entrance. 2. Lobby and cloisters for ablution. 3. Great minaret. 4. Kibla. 5. Mihrab. 6. Sultan's tomb, taken from a Christian church. 7. The tomb within a screen, at Acre—a fine specimen of Early English work, which would not be out of place in Salisbury Cathedral. Moslem translations of the clustered jamb-shafts and deep arch-mouldings of this style often occur.

8. Dikka.

built on the ruins of a Hindu temple. A whole volume would not suffice to describe the magnificent mosques of India, such as those at Ahmedabad, Mandu, Maladah, Bijapur, Fathipur, and countless others. The introduction in the 17th century of Florentine marble and mosaic workers produced a new and very splendid style of building, of which the "pearl mosque" and the Taj Mehal at Agra are the finest specimens.

At Srinagar in Kashmir there is a large and very remarkable mosque of the normal plan, constructed entirely of wood logs, with numerous pillars of deodar pine; it was built by Shah Hamadan, and is an extremely picturesque building. (See Cole, *Ancient Buildings in Kashmir*, 1869.)

In Turkey the mosques are either old Christian basilicas, such as S. Sophia and S. Saviour's at Constantinople, and the numerous fine early churches of Thessalonica and Trebizond, or else are mostly copies, more or less accurate, of Justinian's splendid church of S. Sophia, a building which seems to have been enthusiastically admired and appreciated by the Ottoman conquerors. The mosque of Solaimán the Magnificent, 1550-1555, is the finest of these Turkish reproductions of S. Sophia. Another, rather less close a copy, is the mosque of Sultan Ahmed, 1608. None of this latter class are of course earlier than the middle of the 16th century.²

In the present century Moslem art has produced but little of architectural importance. The great mosque of Mohammed Ali, on the citadel of Cairo, is the work of a German architect, and though built of rich materials is of small artistic value or interest; it is a large but feebly designed building of the S. Sophia type. Unfortunately European influence seems now to be rapidly destroying the feeling for true art that still survives among Moslem nations.

Literature.—In addition to works referred to above see *Monumentos Arquitectónicos de España*, 1859-83; Murphy, *Arabian Antiquities of Spain*, 1813; Owen Jones, *Alhambra*, 1842; *Antiquidades Arabes de España*, 1870; Hay's *Plans in Cairo*, 1840; *Roberts, Holy Land, Egypt, &c.*, 1842-9; Hessemer, *Arabische Bau-Verzierungen*, 1833; Castellani, *Architettura Orientale*; Launay and Montani, *Architecture Ottomane*, 1873; Salzenberg, *All-Christliche Baudenkmale von Constantinopel*, 1854; Lewis, *Illustrations of Constantinople*, 1837; Chardin, *Voyage en Perse*, 1785; Fergusson, *Architecture of India, &c.*, 1876; Cole, *Ancient Delhi*. (J. H. M.)

MOSQUITO (sometimes written "Mosquita"), a Spanish word signifying "little fly," is a name popularly applied to certain annoying dipterous insects, and, strictly speaking, it should probably be used only for species of *Culicidæ* (and for the genus *Culex* in particular), for which "gnat" is the English synonym; but in many countries it is by almost common consent applied to all small dipterous insects that suck human blood, and therefore includes what we know as "sand-flies," "midges," &c., of the genera *Ceratopogon*, *Simulium*, and others. By Englishmen a distinction is often falsely drawn between "mosquito" and "gnat," the former being supposed to represent an insect native chiefly of hot climates, whereas the latter is their own too-well-known pest. In effect the terms are really synonymous, and any actual difference can only be specific. In very hot seasons we not uncommonly hear alarming reports of mosquitoes having made their appearance in London and elsewhere in the British Isles, and means whereby they were imported are often suggested,—the real facts of the case being that extra heat may render the native species more annoying, or that it causes a bodily condition in which their bites are more severely felt.³ The "mosquitoes" of high northern latitudes may be species both of *Culex* and *Simulium*.

Accounts of the numbers of these insects in tropical countries and in high latitudes, and of their irritating attacks, are to be met with—seldom exaggerated—in most books of travel. Even in Britain the annoyance caused by gnats is very great, and in marshy districts often unendurable, especially to new-comers, for it seems probable that the insects really attack a visitor more furiously than they do the natives of the district, but, on the other hand, the latter may be more indifferent to their assaults. In some subjects even the "piping" by which a hungry gnat announces its presence has most distressing effects. In

² Texier and Pullan, *Byzantine Churches*, 1864; Pulgher, *Eglises de Constantinople*, 1882.

³ A few years ago a London hotel, popular with American visitors, was said to harbour mosquitoes, which some of the visitors had brought with them from the Southern States. An examination revealed the fact that the cistern was uncovered and exposed, and was the breeding-place for hosts of gnats.

high latitudes they are driven off by anointing the body with fish-oil; and in hot climates "mosquito curtains" are part of the ordinary bed-furniture. It is only the female that bites; and, as it is but a very small proportion of them that can ever taste human blood or that of any warm-blooded animal, blood would not appear to be essential to their welfare. It has been suggested that warm blood may have an influence on the ova, but it cannot be supposed that the eggs of those multitudes of individuals that never get a chance to taste blood are necessarily infertile; everything tends to prove the opposite.

Of late mosquitoes have been accused of playing a hitherto unsuspected part in the dissemination of certain entozoic diseases. According to the researches of Drs Manson and Cobbold and others, it appears certain that the insects, in sucking the blood of persons who are hosts of the entozoon known as *Filaria sanguis-hominis*, take these parasites into their own system, and it is believed that they afterwards (by their death and otherwise) contaminate drinking water with them, and thus convey the entozoa into the blood of persons previously unaffected.

Mosquitoes are aquatic in their early stages. The



FIG. 1.—Mosquito (*Culex*). A, natural size; B, enlarged. (After Curtis.)

female deposits her eggs in boat-shaped masses on the surface of the water. The larvæ are very active, and have a peculiar jerking motion; the last segment is furnished with a respiratory apparatus, the form of which probably varies according to the species, but it is usually a long tube, the extremity of which can be exposed to the external air. The pupæ

are also active (contrary to the condition in most dipterous pupæ), and are odd-looking creatures owing to the great development of the thoracic region; the respiratory apparatus is in the thorax in this state, the extremity of the body having two swimming-plates; the pupæ do not eat, but their activity is very great.

No notice of the mosquito or gnat would be complete without an explanation of the mouth-parts by which it is enabled to cause such extreme irritation. When these parts are closed one upon the other the whole looks like a long proboscis; but in reality this consists of seven distinct slender pieces separated to the base, viz.—the labium, two maxillæ, two mandibles, the lingua, and the labrum. The nomenclature of the mouth-parts varies with different authors. G. Dimmock (*Anatomy of the Mouth-parts and of the Sucking-apparatus of some Diptera*), the latest investigator of this complex apparatus, states that the labium has for function, for the most part, the protection of the fine setæ which form the true piercing organ of *Culex*. In the female of *Culex* the protective sheath is formed by the labium alone. When the mosquito has found a place which suits it for piercing—for it often tries different places on our skin before deciding on one—it plants its labellæ firmly upon the spot, and a moment later the labium is seen to be

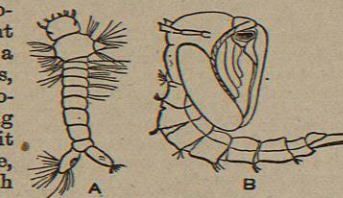


FIG. 2.—A, larva of *Culex*; B, pupa. (After Packard.)

flexing backwards in its middle; the setæ, firmly grouped together, remain straight and enter the skin. When the setæ have entered to nearly their full length, the labium is bent double beneath the body of the insect. When the mosquito wishes to withdraw the setæ it probably first withdraws the two barbed maxillæ beyond the other setæ, that is, so that their barbs or papillæ will be kept out of action by the mandibles and hypopharynx; then it readily withdraws the setæ, perhaps aiding their withdrawal by the muscles

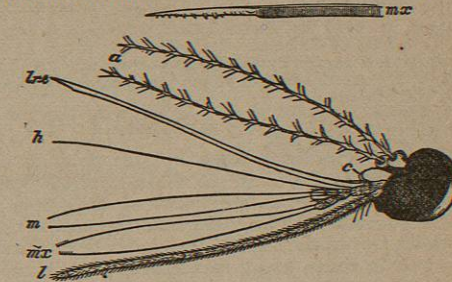


FIG. 3.—Mouth-parts, &c., of female *Culex* (after Dimmock). a, antennæ; c, clypeus; h, hypopharynx; tr-c, labrum-epipharynx; l, labium; m, mandibles; mx, maxillæ (with the tip of one of them enlarged).

of the labium, for during the process of extracting the setæ from the skin, while they are slowly sinking back into the groove upon the upper side of the straightening labium, the mosquito keeps the labellæ pressed firmly upon the skin. The withdrawal of blood is effected by means of a pumping apparatus at the base of the mouth-parts. As no investigator appears to have been able to detect a poison gland, it has been considered that the irritation caused by the bite of a mosquito was solely of mechanical origin; but the extreme irritation and its duration have not caused this idea to be commonly accepted. Dimmock avows his belief that there is use made of a poisonous saliva. In the male of *Culex* the mouth-parts vary considerably from those of the female,—a conspicuous point of difference being that in this sex the mandibles are absent, and the maxillæ are not barbed.

About 85 species of *Culex* (mosquito or gnat) have been described as inhabiting Europe, and about 130 from the rest of the world, but their differentiation is involved in great difficulty and uncertainty, and it is probable that the number of true species may be very much less. A species from Cuba has received the name *Culex mosquito*; but there is not one species that specially deserves the name more than another from a popular point of view, nor from a scientific point of view is there any difference between a mosquito and a gnat.

MOSQUITO COAST. See NICARAGUA.

MOSSES, or MUSCI, one of the two divisions of the botanical class *Muscineæ*, which includes also the Liverworts or *Hepaticæ*. See MUSCINEÆ.

MOSSLEY, a manufacturing town of Lancashire, England, is situated on the London and North-Western Railway and on the Huddersfield canal, near the west bank of the Tame, which here separates Lancashire from Cheshire, 3 miles north-east of Ashton-under-Lyne, and 10 east-north-east of Manchester. The houses are for the most part built of stone. To supersede the old church of St George, erected in 1757, a new building was begun in 1881. A mechanics' institute was erected in 1858. In the vicinity of the town is an eminence called Hartshead Pike, on which is a lofty circular tower surmounted by a spire rebuilt of stone in 1758. Mossley has risen into importance since the introduction of the cotton manufacture about fifty years ago. A fair is held annually. The town was placed under the Local Government Act in 1864, the district to which its provisions extend including also part of Saddleworth in Yorkshire. The total population was in 1871 10,578, and 13,372 in 1881.

MOSTAR, the chief town of Herzegovina, is built on both banks of the Narenta, about 35 miles from its mouth, and 40 miles south-west of Seraievo (Bosna Serai), the capital of Bosnia. Among the public buildings are a palace, two Greek churches, and forty mosques, in several cases with Roman or Byzantine tracery in their windows. The fine old bridge from which the town takes its name

(*Most Star*, Old Bridge) is probably Roman. The town has a good trade and manufactures excellent Damascus swords; and the grapes and wine of Mostar are celebrated throughout the south Slavonic countries. The population, 7300 in 1844, had increased to 10,848 by 1879.

Whether its ancient name was Saloniata, Sarsenterum, or Andretium, there is little doubt that Mostar, or, to use the older Slavonic name, Vitrinitcha, dates from the time of the Romans. It was enlarged in 1440 by Radivoi Gost, mayor of the palace to Stephen, first duke of St Sava. Immediately on their conquest of Herzegovina it was chosen by the Turks as their headquarters; and it afterwards became the capital of the independent government of Ali Pasha and Stolac.

See Evans, *Through Bosnia and Herzegovina*, 1876; Wilkinson's *Dalmatia and Montenegro*, vol. II. (view and plan at pp. 69-70); and Caix de Saint Aymour in *Rev. des D. Mondes*, February 1883.

MOSUL, an important town in Mesopotamia, on the right bank of the Tigris, in 36° 35' N. lat. and 43° 3' E. long. In Mosul, as in Baghdad, only part of the space within the walls is covered with buildings and the rest is occupied by cemeteries; even the solid limestone walls of the ancient town are half in ruins, being serviceable only in the direction of the river, where they check inundations. Of the town gates at present in use, five are on the south, two on the west, two on the north, and the great bridge gate on the east. Leaving Mosul by the last named, the traveller first crosses a stone bridge, 157 feet long; then a kind of island (140 feet), which is overflowed only in spring and summer by the Tigris; next a stretch of the river which, at such times as it is not fordable, is spanned by a bridge of boats, the bridge proper covering only one-sixth of the full width of the stream. During the season of low water excellent vegetables, particularly water-melons, are grown upon the islands and dry portions of the river-bed.

The interior of Mosul has an insignificant appearance, only a few of the older buildings being left, among which may be mentioned the Great Mosque, with its leaning minaret, formerly a church dedicated to St. Paul. The private houses are partly of brick and partly of stone, the district furnishing an excellent and easily-wrought building-stone resembling marble. Handsome well-built halls (*sodâns*) may be seen in many houses; the underground dwellings also, to which the inhabitants retire during the day-time in the hot months of summer, are well and solidly built. The houses are high, and during three or four months of the year the inhabitants sleep on the flat roofs. The streets are for the most part badly paved and very narrow, a small square in the market-place, overlooked by airy coffee-booths, being almost the only open space. The shops are few and poor. The industry, in comparison with former times, when the town had so considerable a manufacture in "muslin" as to give its name to that fabric, is very unimportant; trade also, which is almost exclusively in the hands of native merchants, has fallen off greatly. Gall nuts, gathered on the neighbouring Kurdish mountain slopes, are mostly exported, but are also made use of by native dyers; and hides, wax, cotton, and gum are sold. Very few Europeans live in Mosul, though the market is abundantly supplied with European goods. The wholesale trade, conducted by means of caravans, has greatly declined from its former importance, owing not only to changes which have been taking place in commercial routes generally, but also to the dangers of the roads near Mosul; for to the north and east of the town there are wild tribes of Kurds, some of whom continue to

assert their independence of the Osmanli rule, while the Yezidis, a Kurdish tribe who have never yet accepted Islam, dwell in the Sinjar mountains, upon a northern spur of which the town stands. Semi-independent tribes of Bedouins also roam over the plains in the immediate vicinity. The wild hordes of the Shammar Bedouins have often plundered or threatened the citizens. Mosul, therefore, has a somewhat isolated position, and this perhaps is one reason why Christians and Moslems have lived together on better terms here than elsewhere. Both are animated by an active local patriotism, and both honour the same patron saints, Jirjis (St George) and Jonah; the grave of the latter is pointed out on an artificial mound on the left bank of the Tigris.

The language of the people of Mosul is a dialect of Arabic, partly influenced by Kurdish and Syriac. The population is probably 25,000 to 30,000. It is stated that the town is divided into 32 quarters, of which one is Jewish and three are Christian, while the rest are Moslem. The Moslems call themselves either Arabs or Kurds, but the prevalent type, very different from the true Arabian of Baghdad, proves the Aramean origin of many of their number. Of the Christians the community of the Chaldeans, *i. e.*, those who have gone over from Nestorianism to Catholicism, seems to be the most important; there are also Syrian Catholics and Jacobites. Mosul has for several centuries been a centre of Catholic missionary activity, the Dominicans especially, by the foundation of schools and printing-offices, having made a marked impression upon an intelligent and teachable population. There are very few Protestants.

Mosul shares the severe alternations of temperature experienced by Upper Mesopotamia (see MESOPOTAMIA). The summer heat is extreme, and in winter frost is not unknown. Nevertheless the climate is considered healthy and agreeable; copious rains fall in general in winter. The drinking water is got from the muddy Tigris. At the north-east corner of the town is a sulphur spring, and 4 leagues to the south there is a hot sulphur spring (Hammâm 'Ali), much frequented by invalids.

Mosul probably occupies the site of a southern suburb of ancient NINEVEH (*g. v.*), but it is very doubtful whether the older name of Mespila can be traced in the modern Al-Mausil (Arab., the place of connexion); it is, however, certain that a town with the Arabic name Al-Mausil stood here at the time of the Moslem conquest (636 A. D.). The town reached its greatest prosperity towards the beginning of the decline of the caliphate, when it was for a time an independent capital. The dynasty of the Hamdanids reigned in Mosul from 934, but the town was conquered by the Syrian Okailids in 990. In the 11th century it belonged to the Seljuks, and in the 12th, under the sway of the Atabeks, particularly of Zenki, it had a short period of splendour. Saladin besieged it unsuccessfully in 1182. Among the later rulers of Mosul the only conspicuous name is that of Lulu, in the first half of the 13th century. The town suffered severely from the Mongols under Hulagu; under Turkish rule it became the capital of a small pashalik, bounded on the one side by the vilayet of Diarbekr, on the other by that of Baghdad. The Persians occupied Mosul for a short time in 1623, until it was, soon afterwards, recovered by Sultan Murad IV. It was visited by an earthquake in 1667, and was unsuccessfully besieged by the Persians under Nadir Shah in 1743. The governorship of the pashalik was long hereditary in the originally Christian family of the 'Abd-al-Jalil, until the Porte, during the course of the present century, succeeded after a long and severe contest in establishing a more centralized system of government.

Compared with what it was in the Middle Ages the present town is much deteriorated, its decay having advanced steadily from the beginning of the Turkish dominion.

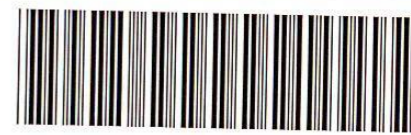
See Ritter, *Asien*, vol. VII. A map of the town accompanies Černik's paper, "Studienexpedition durch die Gebiete des Euphrat und Tigris," in *Ergänzungsheft No. 46 of Petermann's Mittheilungen*, 1876.

END OF VOLUME SIXTEENTH.



BIBLIOTECA

000412



103000068

