

assistance of his sons, and of Kraft and Lexell, however, he continued his labours, neither the loss of his sight nor the infirmities of an advanced age being sufficient to check his activity. Having engaged to furnish the Academy of St Petersburg with as many memoirs as would be sufficient to complete its acts for twenty years after his death, he in seven years transmitted to the academy above seventy memoirs, and left above two hundred more, which were revised and completed by another hand.

Euler's knowledge was more general than might have been expected in one who had pursued with such unremitting ardour mathematics and astronomy as his favourite studies. He had made very considerable progress in medical, botanical, and chemical science, and he was an excellent classical scholar, and extensively read in general literature. He was much indebted to an uncommon memory, which seemed to retain every idea that was conveyed to it, either from reading or meditation. He could repeat the *Aeneid* of Virgil from the beginning to the end without hesitation, and indicate the first and last line of every page of the edition which he used. Euler's constitution was uncommonly vigorous, and his general health was always good. He was enabled to continue his labours to the very close of his life, so that it was said of him that he ceased to calculate and to breathe at nearly the same moment. His last subject of investigation was the motion of balloons, and the last subject on which he conversed was the newly discovered planet Herschel. On the 18th September 1783, whilst he was amusing himself at tea with one of his grandchildren, he was struck with apoplexy, which terminated his illustrious career at the age of seventy-six. Euler's genius was great, and his industry still greater. His works, if printed in their completeness, would occupy from 50 to 80 quarto volumes. He was simple and upright in his character, and had a strong religious faith. He was twice married, his second wife being a half-sister of his first, and he had a numerous family, several of whom attained to distinction. His *éloge* was written for the French Academy by Condorcet, and an account of his life, with a list of his works, was written by Von Fuss, the secretary to the Imperial Academy of St Petersburg.

The works which Euler published separately are—*Dissertatio physica de Sono*, Basel, 1727, in 4to; *Mechanica, sive Motus scientia analytice exposita*, Petersb., 1736, in 2 vols. 4to; *Einleitung in die Arithmetik*, ibid. 1738, in 2 vols. 8vo, in German and Russian; *Tentamen Novae Theoriae Musicae*, ibid. 1739, in 4to; *Methodus inveniendi lineas curvas, maximi minimive proprietate gaudentes*, Lausanne, 1744, in 4to; *Theoria motuum Planetarum et Cometarum*, Berlin, 1744 in 4to; *Beantwortung*, etc., or Answers to different Questions respecting Comets, ibid. 1744, in 8vo; *Neue Grundsätze*, etc., or New Principles of Artillery, translated from the English of Benjamin Robins, with notes and illustrations, ibid. 1745, in 8vo; *Opuscula varii argumenti*, ibid. 1746-51, in 3 vols. 4to; *Novae et correctae Tabulae ad loca Lunae commutanda*, ibid. 1746, in 4to; *Tabulae Astronomicae Solis et Lunae*, ibid. 4to; *Gedanken*, etc., or Thoughts on the Elements of Bodies, ibid. 4to; *Rettung der Gottlichen Offenbarung*, etc., Defence of Divine Revelation against Freethinkers, ibid. 1747, in 4to; *Introductio in Analysin Infinitorum*, Lausanne, 1748, in 2 vols. 4to; *Scientia Navalis, seu Tractatus de construendis ac dirigendis navibus*, Petersb. 1749, in 2 vols. 4to; *Theoria motus Lunae*, Berlin, 1753, in 4to; *Dissertatio de principio minima actionis, una cum examine Objectionum cl. prof. Koenigii*, ibid. 1753, in 8vo; *Institutiones Calculi Differentialis, cum ejus usu in analysi Infinitorum ac doctrina Serierum*, ibid. 1755, in 4to; *Constructio Lentium Objectivarum*, etc., Petersb. 1762, in 4to; *Theoria motus corporum solidorum seu rigidorum*, Rostock, 1765, in 4to; *Institutiones Calculi Integralis*, Petersb. 1768-1770, in 3 vols. 4to; *Lettres à une Princess d'Allemagne sur quelques sujets de Physique et Philosophie*, Petersb. 1768-1772, in 3 vols. 8vo; *Anleitung zur Algebra*, or Introduction to Algebra, ibid. 1770, in 8vo; *Dioptrica*, ibid. 1767-1771, in 3 vols. 4to; *Theoria motuum Lunae nova methodo pertractata*, ibid. 1772, in 4to; *Novae Tabulae Lunares*, ibid. in 8vo; *Théorie complète de la construction et de la manœuvre des Vaisseaux*, ibid. 1773, in 8vo; *Éclaircissements sur établissemens en faveur tant des Veuves que des Morts*, without a date; *Opuscula Analytica*, Petersb. 1783-1785, in 2 vols. 4to.

EUMENES, a native of Cardia, a city in the Thracian Chersonesus, was born 360 B.C., and died in 315. At a very early age he was employed as private secretary by Philip king of Macedonia, and on the death of that prince he was continued in the same office by Alexander. In this capacity he accompanied Alexander into Asia. The esteem in which he was held by his royal master was proved by his being retained in confidence in spite of the enmity of Hephestion, by his appointment to a high military command, and by his marriage to Artonis, the daughter of Artabazus. Upon the death of Alexander, the provinces and armies were divided amongst his generals, and the countries assigned to Eumenes were Cappadocia and Paphlagonia, with the sea-coast of Pontus as far as Trapezus; but as they were not yet subdued, Leonnatus and Antigonus were charged by Perdiccas to put him in possession. Antigonus, however, disregarded the orders of Perdiccas; and Leonnatus, having in vain attempted to induce Eumenes to accompany him to the assistance of Antipater in Europe, made an unsuccessful attack on his life. Eumenes, however, escaped his vengeance and joined Perdiccas, who assisted him in taking possession of Cappadocia. When Craterus and Antipater, having reduced Greece, determined to pass into Asia and overthrow the power of Perdiccas, their first blow was aimed at Cappadocia; and in the emergency Eumenes was appointed commander of all the forces in the neighbouring countries. But to this Neoptolemus, one of the generals, refused to submit; and being defeated by Eumenes, he fled to Antipater and Craterus. The presence of Antipater was required in Cilicia, and the army destined to act against Eumenes was therefore commanded by Craterus and Neoptolemus. They were, however, completely defeated; Neoptolemus was killed, and Craterus died of his wounds, 321 B.C. When the Macedonian chiefs received intelligence of the defeat of two of their generals by one whom they considered a stranger, only a few days after the death of Perdiccas, they condemned Eumenes to death, and charged Antipater and Antigonus with the execution of their order. Eumenes was at first successful, but being defeated through the treachery of one of his officers, he fled to Nora, a strong fortress on the confines of Cappadocia and Lycaonia. Here he made a successful resistance, and was afterwards appointed by Olympias to command the army against Antigonus, whose intentions could no longer be misunderstood. He gained a battle against his adversary, but unfortunately lost the baggage and women belonging to his Macedonian phalanx. Antigonus offered to restore them on condition that the soldiers would surrender Eumenes into his hands. The offer was complied with, and Eumenes, having been thus basely betrayed, was put to death in the forty-fifth year of his age. (Plutarch, *Life of Eumenes*; Nepos; Diodor. Sic., xviii. 30.)

EUMENIDES. See ERINYES.

EUNAPIUS, a Greek sophist and historian, born at Sardis 347 A.D. In his native city he studied under his relative the sophist Chrysanthius, from whom it is supposed that he imbibed the enmity to Christianity which his works display. While still a youth he went to Athens, where he became a favourite pupil of Proeresius. He possessed a considerable knowledge of medicine. In his later years he seems to have resided at Athens, teaching rhetoric. There is evidence that he was still living in the reign of the younger Theodosius. He was the author of two works, one entitled *Lives of the Sophists* (*Βίοι φιλοσόφων και σοφιστών*), and the other consisting of a continuation of the history of Dexippus. The former work is still extant, but of the latter only excerpts remain. The style of both works is bad, and they are written in a spirit of bitter hostility to Christianity. The *Lives of the Sophists*, which

deals chiefly with the contemporaries of the author, is valuable as the only source for the history of the philosophy of that period. The best edition is that of Boissonade with notes by Wyttenbach (Amsterdam, 1822). See a notice of Eunapius by Cousin in his *Fragments philosophiques pour servir à l'histoire de la philosophie* (1865).

EUNOMIUS, one of the chief leaders of the extreme or Anomoean Arians, who are sometimes accordingly called Eunomians, was born at Dacora in Cappadocia early in the 4th century. Under the advice of the Arian bishop Secundus of Antioch, he was sent to Alexandria to study theology under Aetius, whose secretary he became. He afterwards came under the influence of Eudoxius of Antioch, where he was ordained deacon. On the recommendation of Eudoxius he was appointed bishop of Cyzicus in 360. In this position he gave unrestrained utterance to his extreme Arian views, with the result that the inhabitants of Cyzicus lodged a complaint against him, and Eudoxius was compelled, by command of the emperor Constantine, to depose him from the bishopric within a year of his elevation to it. During the reigns of Julian the Apostate and Jovian, he resided in Constantinople in close intercourse with Aetius, consolidating an heretical party and consecrating schismatical bishops. He next resided at Chalcedon, from which he was banished to Mauritania by the emperor Valens for harbouring the rebel Procopius. He was recalled, however, before he reached his destination. In 383 the emperor Theodosius, who had demanded a declaration of faith from all party leaders, punished Eunomius for continuing to teach his distinctive doctrines, by banishing him to Halmyris in Moesia. He afterwards resided at Chalcedon and at Caesarea in Cappadocia, from which he was expelled by the inhabitants for writing against their bishop Basilius. His last days were spent at Dacora his birthplace, where he died about 394. The writings of Eunomius were held in high reputation by his party, and their influence was so much dreaded by the orthodox, that more than one imperial edict was issued for their destruction (*Cod. Theod.*, xvi. 34). Consequently his commentary on the epistle to the Romans, mentioned by the historian Socrates, and his epistles, mentioned by Philostorgius and Photius, are no longer extant. His first apologetical work (*Ἀπολογητικός*), written probably about 360 or 365, has been entirely recovered from the celebrated refutation of it by Basilius, and may be found in Fabricius's *Bibl. Gr.*, viii., pp. 262-305. A second apology, written before 379 (*ὑπὲρ ἀπολογίας ἀπολογία*), exists only in the quotations given from it in a refutation by Gregory of Nyssa. The exposition of faith (*Ἐκθεσις τῆς πίστεως*), called forth by the above-mentioned demand of Theodosius, is still extant, and has been edited by Valesius in his notes to Socrates, and by Rettberg in his *Marcelliana*. The doctrine of Eunomius, as displayed in these works, was developed by an exclusively logical application of the fundamental idea of the unity of God to the orthodox Trinitarian view. Denying alike the homoousian and the homoiousian theory, he was dialectically probably the ablest and most consistent defender of Anomoeanism, or the doctrine according to which the Son is essentially or substantially different from the Father. According to Socrates (v. 24), Eunomius carried his doctrine to a practical issue by altering the baptismal formula. Instead of baptizing in the name of the Trinity, he baptized in the name of the Creator and into the death of Christ. This alteration was regarded by the orthodox as so serious that Eunomians on returning to the church were re-baptized, though the Arians were not. The Eunomian heresy was formally condemned by the oecumenical council of Constantinople. The sect maintained a separate existence for some time, but gradually fell

away owing to internal divisions. It may be noted that Whiston's *Eunomianism Redivivus* contains an English translation of the first apology of Eunomius.

EUNUCH (*εὐνοῦχος*), an emasculated person. From remote antiquity among the Orientals, as also at a later period in Greece, eunuchs were employed to take charge of the women, or generally as chamberlains,—whence the name, *οἱ τὴν εὐνὴν ἔχοντες*, i.e., those who have charge of the bedchamber. Their position in the harems of princes affording them the ready means of access to the royal person, it is not surprising that they were frequently enabled to exercise an important influence over princes, and even to raise themselves to stations of great trust and power. Hence the term eunuch in Egypt came to be applied to any court officer, whether a castratus or not. The vulgar notion that eunuchs are necessarily deficient in courage and in intellectual vigour is amply refuted by history. We are told, for example, by Herodotus that in Persia they were especially prized for their fidelity; and they were frequently promoted to the highest offices. Narses, the famous general under Justinian, was a eunuch, as was also Hermias, governor of Atarnea in Mysia, to whose manes the great Aristotle offered sacrifices, besides celebrating the praises of his patron and friend in a poem (still extant), addressed to *Virtue* (see Lucian's dialogue entitled *Eunuchus*). To multiply instances were superfluous. The capacity of this class of persons for public affairs is strikingly illustrated by the histories of Persia, India, and China; and we need only allude to the power exercised by the eunuchs under the later Roman emperors. The hideous trade of castrating boys to be sold as eunuchs for Moslem harems has continued to modern times, the principal district whence they are taken being the inland of north-eastern Africa. As the larger proportion of children die after the operation (generally total removal), such as recover fetch at least three or four times the ordinary price of slaves. Even more vile, as being practised among a civilized European nation, has been the Italian practice of castrating boys to prevent the natural development of the voice, in order to train them as adult soprano singers, such as might till lately be heard in the Sixtine Chapel. Though such mutilation is a crime punishable with severity, the supply of "soprani" never failed so long as their musical powers were in demand in high quarters. Driven long ago from the Italian stage by public opinion, they remained the musical glory and moral shame of the papal choir till the accession of the present pope (Leo XIII.), one of whose first acts was to get rid of them. Mention must here also be made of the class of voluntary eunuchs, who have emasculated themselves, or caused the operation to be performed on them, for the avoidance of sexual sin or temptation. This unnatural development of asceticism appears in early Christian ages, its votaries acting on the texts Mat. xix. 12, v. 28-30. Origen's case is the most celebrated example, and by the 3d century there had arisen a sect of eunuchs, of whom Augustine says (*De Hæres.* c. 37), "Valesii et seipsos castrant et hospites suos, hoc modo existimantes Deo se debere servire" (see Neander, *History of Chr. Church*, vol. ii. p. 462; Bingham, *Antiq. Chr. Church*, book iv. chap. 3). Such practices have been always opposed by the general body of the Christian churches, but have not even now ceased. It recently came into notice how large and prosperous a secret sect of the kind exists in Russia, whose practice of castration is expressed in the name of Skopzi, by which they are commonly described. (For details see F. v. Stein in *Zeitschrift für Ethnologie*, 1875, p. 37, and *Journal of Anthropology*, 1870; also Haxthausen, *Russian Empire*, vol. i.) (E. B. T.)

EUPATORIA, a seaport town of European Russia, at the head of a circle in the government of Taurida, about 50

miles N.W. of Simpheropol, on a sandy promontory in the north of Kalamita Bay, in 45° 12' N. lat. and 33° 5' E. long. Of its numerous ecclesiastical buildings, which comprise 16 mosques, three synagogues, an Armenian, an Orthodox, and a Catholic church, only two are of special interest, the Karaite synagogue and one of the mosques, which has fourteen cupolas, and is built after the plan of St Sophia in Constantinople. The shipping accommodation is poor, the port or rather roadstead having a sandy bottom, and being exposed to violent storms from the N.E. Small vessels cast anchor near the town in a depth of 18 or 15 feet. The trade is principally in grain, skins, cowhair, felt, tallow, and salt. In 1861, out of a population of 7081, 3422 were Mahometans, 1228 Karaite Jews, and 175 Talmudists. In 1871 the total was 8294.

It is believed that in the 5th century B.C. there was a town Coronitis, in this part of the Chersonese, and according to some authorities it was near this spot that a military post called Eupatorium was established in the 1st century A.D. by Diophantes, the general of Mithradates Eupator. About the end of the 15th century the Tatars built the fortress of Gezelevé on the present site, and it became the centre of one of the principal towns of the Crimea. It was occupied for the first time by the Russians under Marshal Munich in 1786, and for the second time in 1771 by Prince Dolgoroukoff. Its annexation to Russia took place in 1783, and in the following year it was made the chief town of a circle. In 1854 the Anglo-French troops were landed at Eupatoria, and in February 1855 the town was occupied by the Turkish forces under Omer Pasha.

EUPEN (French *Néau*), the chief town of a circle in the district of Aix-la-Chapelle, Rhenish province of Prussia, is situated in a beautiful valley at the confluence of the Hill and Vesdre, on the Rhenish railway, 9 miles south of Aix-la-Chapelle. It is a flourishing commercial town, and besides cloth and buckskin mills, it has net and glove manufactories, soapworks, dyeworks, tanneries, and breweries, and also carries on a considerable trade in cattle, butter, and cheese. It has a Protestant and 6 Catholic churches, a Franciscan monastery, a town school of a high grade, an orphanage, a hospital, an infirmary, and a lunatic asylum. Eupen until 1801 was under the government of Austria, and belonged to the duchy of Limburg, but at the peace of Lunéville it came into the possession of France, and in 1814 into that of Prussia. The population in 1875 was 14,895.

EUPHORBIVM, an acrid dull-yellow or brown resin, consisting of the concreted milky juice of *Euphorbia resinifera*, Berg., a cactus-like perennial plant of the natural order Euphorbiaceæ, indigenous to Morocco. It is procured by making incisions in the branches of the plant, and allowing the juice to harden in the heat of the sun. In collecting it, the protection of the mouth and nostrils by a cloth is requisite, as the dust occasions violent sneezing if inhaled. Euphorbium has a taste at first little marked, but afterwards hot and acrid. It dissolves in alcohol, ether, and turpentine; in water it is only slightly soluble. Its constituents, according to Flückiger, are 38 per cent. of an amorphous resin, to which the drug owes its acidity, and 22 per cent. of *euphorbon*,—together with mucilage, malates, and mineral compounds. Pliny states that the name of the drug was given to it in honour of Euphorbus, the physician of Juba II., king of Mauritania. In former times euphorbium was valued in medicine for its drastic, purgative, and emetic properties; and as an errhine it is still occasionally resorted to. On account of the violence of its action, it requires to be mixed for use with starch or flour. As a vesicant it has been employed as a substitute for cantharides in veterinary practice.

See Flückiger and Hanbury, *Pharmacographia*, 1874; Dentley and Trimen, *Medical Plants*, tab. 240.

EUPHORION, a Greek poet and grammarian, was the son of Polymnetus, and was born at Chalcis in Eubœa in the 126th Olympiad, 274 B.C. He studied philosophy under

Lacydes and Prytanis, and poetry under Archebulus the Theraean. After amassing great wealth, he retired (221 B.C.) to the court of Syria, and there assisted Antiochus the Great in forming the royal library at Antioch, which it was intended should rival that of Alexandria; and in this employment he died probably about 200 B.C. His poetry was principally epic, but he was also an epigrammatist, and has besides been supposed, though without sufficient reason, to have written dramas. Only a few fragments of his works have been preserved; but from the opinions expressed by ancient writers, it appears that he was constantly in search of archaic and obsolete expressions, and that the erudite character of his allusions rendered him so obscure as to be understood with difficulty. His works appear to have been popular as late as the times of the emperor Tiberius.

The fragments have been edited by Meineke under the title *De Euphorionis Chalcedensis Vita et Scriptis*, &c., Dantzig, 1823. This work with amendments has been published by Meineke in his *Analecta Alexandrina*, Berlin, 1843. See also Clinton's *Fasti Hellenici*, vol. ii. p. 511; Fabricius, *Bib. Græc.*, vol. i. p. 594; Heyne, *De Euphorione*, *Excurs. iii. ad Virg. Bucol. and Excurs. v. ad Æn. ii.*

EUPHRANOR, a painter and statuary of Greece, who flourished about the middle of the 4th century B.C., was born in the territory of Corinth, but, having practised his art and acquired his renown at Athens, is always identified with the Athenian school. In sculpture he produced a great number of pieces, from colossal life-figures to drinking cups. Of the finest of these, a figure of Paris, a beautiful copy now exists in the Museo Pio-Clementino in the Vatican. His principal pictorial work was extant in the time of Pausanias in one of the porches of the Ceramicus. It represented on one side of the wall the twelve gods, and on the other Theseus as the founder of the equal polity of Athens. Among the pupils of Euphranor were Antidotus, Carmanides, and Leonidus of Anthedon. He was the author of some works on colour and proportion, which seem to have been the characteristic excellences of his own pieces.

EUPHRATES. The Euphrates has been one of the best known rivers of the world from the remotest antiquity. It may be considered, roughly speaking, as divided into three portions, the upper, middle, and lower divisions, each of which is distinguished by special physical features, and each of which has played a conspicuous part in the world's history, retaining to the present day monumental evidence of the races who have lined its banks. The upper division is formed of two arms, called respectively the Frát¹ and the Murád (different forms in all probability of the same name), which rise, the one a short distance to the N.E. of Erzeroum, and the other to the N.W. of Lake Van near Diyadin, and which unite in the vicinity of Keban Maaden, about 39° N. lat. and 39° E. long, on the high road conducting from Sivas to Diarbekir. This upper division of the river bisects the plateau of Asia Minor, and has thus been traversed by all the nations who have passed successively from Asia into eastern Europe. It still exhibits at Paloo, at Malatich, and in some other places, on the precipitous rocks which form its banks, cuneiform inscriptions of the Scytho-Arian dynasty, which ruled in Armenia in the 8th century B.C. Here the general

¹The original name of the Euphrates, *Burat* or *Purat*, represents probably a very old Asiatic root, *Bur* or *Pur* (corresponding with the Welsh *Bwro* and English "pour"), with a Semitic feminine ending. The full form of *Hufrat*, whence the Gr. *Εὐφράτης*, is first found in the inscriptions of Darius Hystaspes, the initial syllable having been prefixed apparently by the Persians, in order to obtain a suitable Arian etymology for the name *Hufrat*, signifying "the good abounding." The fluvial root *Bur* is perhaps to be recognized in Borysthene's *Kha-bur*, and some other names.

character of the Euphrates is that of a river of the first order struggling through high hills or rather low mountains, prolongations of the chain of Anti-Taurus, and making an exceedingly tortuous course as it forces its way over a rocky or a pebbly bed from one natural barrier to another. As it winds round its numerous barriers it carries occasionally towards each of the cardinal points a considerable body of water and is shallow enough in some places for loaded camels to pass in autumn, the water rising to about 4½ feet. The general direction of the left arm of the Euphrates, which is termed the Murád-châi, and which, rising near Diyadin, skirts the plains both of Mûsh and Kharpût, is westerly as far as its junction with the right arm near Keban Maaden. This right arm again, which rises near Erzeroum, and which, though of inferior length and size, is generally regarded as the true Euphrates, runs south-westerly by Erzingân Kamakh (*Kumukh* of the inscriptions, and Gr. *Κομμαγγνή*) and Egin to the point of junction. There, however, the direction of the river changes. Meeting obliquely the Anti-Taurus, which afterwards rises into the Jûjik-dagh (the Mount Abus of antiquity), it is forced to the south through some very precipitous gorges to the vicinity of Malatich. It then crosses the broken country between the Anti-Taurus and Taurus, and finally forces its way through the latter range in a succession of rapids and cataracts for a space of about 40 miles, till it emerges upon the great Syrian plain, a short distance above Samsât, the ancient Samosata, where Lucian dwelt and wrote. The Euphrates now enters on its middle division, which may be considered to extend from Samsât to Hft. The direction here is at first S.W., then S., and afterwards S.E. from about the 36th parallel of latitude to its embouchure in the Persian Gulf. The river in this part of its course runs through a valley of a few miles in width, which it has eroded in the rocky surface, and which, being more or less covered with alluvial soil, is pretty generally cultivated by artificial irrigation. The method of irrigation is peculiar, dams of solid masonry being run into the bed of the river, frequently from both sides at once, so as to raise the level of the stream and thus to give a water power of several feet in height which is used to turn a gigantic wheel sometimes 40 feet in diameter. The water is thus raised to a trough at the top of the dam, and from thence is distributed among the gardens, and melon beds, and rice fields, occupying the valley between the immediate bed of the river and the rocky banks which shut it out from the desert. The wheels, which are of the most primitive construction, being made of rough branches of trees, with 100 or 150 rude clay vessels slung on the outer edge, raise a prodigious amount of water, and are moreover exceedingly picturesque, the dams or aqueducts to which they are attached being often formed of a series of well-built Gothic arches; but they are great impediments to navigation, as they cause a current of six or seven knots an hour, which cannot be surmounted by any ordinary steam power. In some parts of the river 300 of these wheels have been counted within a space of 130 miles, and when our steamers first appeared upon the river, not forty years ago, at least one-third of the wheels were in working order; but they have since fallen very generally into ruin, the Arab population, which used to cultivate the immediate banks of the river, having for the most part moved further off into the desert. The rocks which form the river banks during this part of its course are composed of gypsum, sandstone, and conglomerate with mica and felspar, and at some points, as at Helebi-Jelebi (the Zabâ and Zalâ of the Arabs) approach close to the water's edge. Beyond the rocky banks on both sides is the open desert, covered in spring with a luxuriant verdure, and dotted here and there with the black tent of the Bedouin, the great tribe of Shamar hold-

ing the left bank or Jeziréh, as the 'Anezeh possess the right bank or Shâmiyeh. The middle course of the Euphrates has also played a great part in history. In very early times it formed a boundary between the empire of Assyria to the east and the great nation of the Khetta, or Hittites, to the west; and the capital of the latter people, known in Scripture as Carchemish (2 Chron xxxv. 20), was built upon its banks. The ruins of this city, now known as Yerâbolus, a corruption of the Greek Hierapolis, have been recently examined by Mr George Smith, and are found to contain numerous well-preserved bas-reliefs (with inscriptions in the Hamathite character), which promise to be of the utmost importance as forming the connecting link that has been long sought between Egyptian and Assyrian art. In the vicinity of Hierapolis, or Carchemish, was the upper passage of the Euphrates on the road conducting from Syria to Nineveh. The site is now known as Bir or Birejek, but it retained the title of Zugma (Greek, *Ζύγμα*), according to the Arab geographers, to comparatively modern times (see Yacût in voce), and the remains of the old bridge were still to be seen there in the 7th century of the Hegira, popularly known as the *Jisr Membij*, or bridge of Membij, the Arabic form of the Syriac Mabog or Hieropolis. The lower passage of the Euphrates conducting from Syria to Babylonia, which retained, among the Greeks, the old Semitic title of Thapsacus (or תפסאס 1 Kings v. 4, &c.), is usually placed at Der, 200 miles lower down the river; but Captain Lynch, who carefully examined the country, would prefer the position of *Phunsah* above Racca, where he found the remains of an ancient bridge. The Euphrates is singularly deficient in tributaries after it leaves the mountains; with the exception, indeed, of the *Sanjeh* (*Σίγγας* of the Greeks) and the *Sajur* (Sangar of the Assyrian inscriptions) on the right bank, and the *Bilikh* and *Khabûr* on the left, which have retained their present names unchanged for thirty centuries, there is no affluent to the Euphrates of any consequence after it has once broken through the Taurus range. In antiquity, indeed, there would seem to have been a river named Araxes by Xenophon, and Saocoras by Ptolemy, which descended from the Sinjar hills, and, running due south, joined the Euphrates between Der and Annah; but no traces of such a stream are now to be found, and it has been suggested therefore that its disappearance may be due to the same upheaval of the land at the south-eastern foot of the Sinjar hills, which diverted the Nisibin river (Gozan of scripture, Mygdonius of the Greeks, and Hermas of the Arabs) from its ancient course by Hatra to Tekrit on the Tigris, and forced it to join the Khabûr and ultimately the Euphrates.

During the Mahometan period there were many flourishing towns on the banks of the river in the middle part of its course. The geographers mention in succession Someisât, Rûm-Kaleh, Jisr-Mambej or Bir, Beles, El Ja'aber (or Dugar), Racca (Nicephorium at the mouth of the Bilikh), Kerkesseh (Circessium at the mouth of the Khabûr), Rahbeh, Dér-el-Kâim (Gordian's tomb? and the boundary between the Roman and Persian empires), Annah (or Anatho), Haditheh, Alûs, Nâûsel, and Hft. Many of these cities are now in ruins, but the sites can for the most part be identified, and they would all well repay a careful examination; at present the most considerable towns are Samsât, Bir, Annah, and Hft. From Bir to Ja'aber the river is rather sluggish, running over a sandy or pebbly bed; further down, and as far as Hft, the general character of the bed is rocky, and between Annah and Hft, it is thickly studded with islands, on which were built in former times the castles and treasures of the rulers of the land, many of these islands being still inhabited.