

stiff piece of work. It consists of loose ashes and blocks of lava, and it slopes at an angle of "45° or more," according to one writer, and of 33°, according to another. Probably the slope varies on different sides of the cone; on the side the ascent described was made the 45° certainly seems the more probable. Fortunately there was no strong wind, and no experience of the sickness of which travellers constantly complain in the rarefied air of the summit. The highest point was reached at 4.30 A.M., temperature 47° Fahr. Steam and sulphurous acid issued from the ground, and the cinders were so hot in some places that it was necessary to choose a cool place to sit down on. A thermometer inserted just beneath the soil from which steam issued registered 182° Fahr. Nearly all the stars had now faded away. The vault of heaven was a pale blue, becoming a darker and darker grey towards the west, where it was nearly black. Just before sunrise the sky had the appearance of an enormous arched spectrum extremely extended at the blue end. Above the place where the sun would presently appear there was a brilliant red, shading off in the direction of the zenith to orange and yellow; the latter was succeeded by pale green, this by a long stretch of pale blue, then darker blue, and dark grey, ending opposite to the rising sun with black. This effect was quite distinct; it lasted some minutes, and was very remarkable. It was succeeded by the usual rayed appearance of the rising sun, and at ten minutes to 5 o'clock the upper limb of the sun was seen above the mountains of Calabria. Examined by the spectroscopic, the Fraunhofer lines were extremely distinct, particularly two lines near the red end of the spectrum. The top of the mountain was now illuminated, while all below was in comparative darkness, and a light mist floated over the lower regions. The party was so fortunate as to witness a phenomenon which is not always visible, viz., the projection of the shadow of the mountain across the island, an hundred miles away. The shadow appeared to be vertically suspended in space, at or beyond Palermo, and to be resting on a slightly misty atmosphere; it gradually sank until it reached the surface of the island, and as the sun rose, the shadow of course approached nearer and nearer to the base of the mountain. In a short time the flood of light destroyed the fine effects of light and shadow which were at first visible. The mountains of Calabria appeared very close; the east coast of Sicily could be traced until it ended at Cape Passaro and turned to the west, forming the southern boundary of the island, while to the west distant mountains appeared.

The crater was then examined,—a vast abyss nearly 1000 feet in depth, shut in by precipitous sides. Its dimensions vary, but it is now between two and three miles in circumference. Sometimes it is nearly full of lava, at other times it appears to be bottomless. At the present time it is like an inverted cone; its sides are covered with incrustations of sulphur and ammonia salts, and jets of steam perpetually issue from crevices in its sides. Near the summit was found a deposit several inches in thickness of a white substance, apparently lava decomposed by the hot effluent gases. Hydrochloric acid is said to frequently issue from the crater; the most abundant gases appeared to be sulphurous acid and steam. The interior of the crater reminds one in many respects of the Solfatara near Puzzuoli. During the descent from the cone various specimens of ash and cinder were collected—some red, others black and very vesicular, others highly crystalline, some pale pink. The steep slope of the cone was well shown by the fact that although the surface is either extremely rugged owing to the accumulation of masses of lava, or soft and yielding on account of the accumulation of cinders, a large mass of lava, set rolling near the summit, rushes down with increasing velocity until it bounds off to the plain below.

A striking feature presented during the descent from the mountain was the apparent nearness of the minor cones below, and of the villages at the base of the mountain. The latter seemed to be painted on a vertical wall, and although from ten to fifteen miles distant, they appeared almost within a stone's throw. This curious effect, which has often been observed before, is due to atmospheric refraction.

The different specimens of lava were found to present a wonderful similarity of structure and composition. The main constituents are olivine, magnetite, and felspar. The crystals of the latter are much larger in some specimens than in others. Sometimes olivine prevails, sometimes felspar. A specimen of lava of 1535 found near Borello was ground until it was sufficiently transparent to be examined under the microscope by polarized light. It was found to contain good crystals of augite and olivine, and well striated labradorite and magnetite.

*Eruptions.*—A list of all the eruptions of Etna from the earliest times, has been given by several writers, notably by Ferrara in his *Descrizione dell' Etna*, and by Gemellaro.

The first eruption within the historical period probably happened in the 7th century B.C.; the second occurred in the time of Pythagoras. The third eruption, which occurred in 477 B.C., is mentioned by Thucydides, and it must be the eruption to which Pindar and Æschylus allude. An eruption mentioned by Thucydides occurred in the year 426 B.C. An outburst of lava took place from Monte di Mojo, the most northerly of the minor cones of Etna, in 396 B.C., and following the course of the river Acesines (now the Alcantara) entered the sea near the site of the Greek colony of Naxos (now Capo di Schiso). We have no record of any further eruption for 256 years, viz., till the year 140 B.C. Six years later an eruption occurred, according to Orosius and Julius Obsequens; and Fulvius Flaccus and the same authorities mention an eruption in the year 126 B.C. Four years later Catania was nearly destroyed by a new eruption, 122 B.C. An eruption, of which we possess no details, occurred during the civil war between Cæsar and Pompey, 49 B.C. Livy speaks of an eruption and earthquake which took place (43 B.C.) shortly before the death of Cæsar, which it was believed to portend. In 38 B.C. and 32 B.C. eruptions occurred. The next eruption of which we hear is that mentioned by Suetonius in his life of Caligula. This was in 40 A.D. An eruption is stated to have occurred in 72 A.D. after which Etna was quiescent for nearly two centuries, but in the year 253, in the reign of the emperor Decius, a violent eruption lasting 9 days occurred. According to Carrera and Photius, an eruption occurred in the year 420. We now find no further record for nearly 400 years. Geoffrey of Viterbo states that an eruption occurred in 812, when Charlemagne was in Messina. After another long interval, in this case of more than three centuries and a half, the mountain again entered into eruption. In February 1169 one of the most disastrous eruptions on record occurred. A violent earthquake, which was felt as far as Reggio, destroyed Catania in the course of a few minutes, burying 15,000 persons beneath the ruins. It was the vigil of the feast of St Agatha, and the cathedral of Catania was crowded with people, who were all buried beneath the ruins, together with the bishops and forty-four Benedictine monks. The side of the cone of the great crater towards Taormina, fell into the crater. According to Nicolò Speziale, there was a great eruption from the eastern side of the mountain in 1181. Lava descended from the eastern side of the mountain in 1285; in 1329 Nicolò Speziale was in Catania, and he witnessed a very violent eruption, of which he has left us an account. On the evening of June the 28th, about the hour of vespers, Etna was strongly convulsed, terrible noises were emitted, and flames issued from the south side of the mountain. A new crater, *Monte Lepre*, opened near the Val del Bue, above the rock of Musarra, and emitted large quantities of dense black smoke. Soon afterwards a torrent of lava poured from the crater, and red hot masses of rock were projected into the air. Four years after the last eruption, it is recorded by Silvaggio that a fresh outburst took place. A manuscript preserved in the archives of the cathedral of Catania mentions an eruption which occurred on the 6th of August 1371, which caused the destruction of numerous olive groves near the city. An eruption which lasted for twelve days commenced in November 1408. A violent earthquake in 1444 caused the cone of the mountain to fall into the great crater. An eruption of short duration, of which we have no details, occurred in 1447. After this Etna was quiescent for 89 years. Cardinal Bembo and Fazzello mention an eruption which occurred towards the close of the 15th century. In March 1536 a quantity of lava issued from the great crater, and several new apertures opened near the summit of the mountain and

emitted lava. A year later, in May 1537, a fresh outburst occurred. A number of new mouths were opened on the south slope of the mountain near La Fontanelle, and a quantity of lava was emitted, which flowed in the direction of Catania, destroying a part of Nicolosi, and St Antonio. In four days the lava had run fifteen miles. The cone of the great crater suddenly fell in, so as to become level with the Piano del Lago. The height of the mountain was thus diminished by 320 feet. Three new craters opened in November 1566, on the north-east slope of the mountain. In 1579, 1603, 1607, 1610, 1614, and 1619, unimportant eruptions occurred. In February 1633 Nicolosi was partially destroyed by a violent earthquake, and in the following December earthquakes became frequent around the mountain. In 1646 a new mouth opened on the north-east side, and five years later several new mouths opened on the west side of the mountain, and poured out vast volumes of lava, which threatened to overwhelm Bronte. We have a more detailed account of the eruption of 1669 than of any previous eruption. It was observed by many men of different nations, and we find accounts of it in the *Philosophical Transactions*, and in several separate narratives in French and Italian. Perhaps the most accurate and complete description is that given by Alfonso Borelli, professor of mathematics in Catania. The eruption was in every respect one of the most terrible on record. On the 8th of March the sun was obscured, and a whirlwind blew over the face of the mountain; at the same time earthquakes were felt, and they continued to increase in violence for three days, at the end of which Nicolosi was converted into a heap of ruins. On the morning of the 11th a fissure nearly 12 miles in length opened in the side of the mountain, and extended from the Piano di St Leo to Monte Frumento, a mile from the summit. The fissure was only six feet wide, but it seemed to be of unknown depth, and a bright light proceeded from it. Six mouths opened in a line with the principal fissure, and emitted vast volumes of smoke, accompanied by low bellowing, which could be heard 40 miles off. Towards the close of the day a crater opened about a mile below the others, and ejected red-hot stones to a considerable distance, and afterwards sand and ashes, which covered the country for a distance of 60 miles. The new crater soon vomited forth a torrent of lava, which presented a front of 2 miles. It encircled Monpiliere, and afterwards flowed towards Belpasso, a town of 8000 inhabitants, which was speedily destroyed. Seven mouths of fire opened around the new crater, and in three days united with it, forming one large crater 800 feet in diameter. The torrent of lava had continued to flow, and it destroyed the town of Mascalcucia on the 23rd of March. On the same day the crater cast up great quantities of sand, ashes, and scorie, and formed above itself the great double coned hill called *Monti Rossi*, from the red colour of the ashes of which it is mainly composed. On the 25th very violent earthquakes occurred, and the cone of the great central crater was shaken down into the crater, for the fifth time since the first century A.D. The original current of lava had divided into three streams, one of which destroyed San Pietro, the second Camporotondo, and the third the lands about Mascalcucia, and afterwards the village of Misterbianco. Fourteen villages were afterwards destroyed, and the lava made its way towards Catania. At Albanello, two miles from the city, it undermined a hill covered with corn fields, and carried it forward a considerable distance; a vineyard was also seen to be floating on its fiery surface. When the lava reached the walls of Catania it accumulated without progression, until it rose to the top of the wall, 60 feet in height, and it then fell over in a fiery cascade, and overwhelmed a part of the city. Another portion of the same stream threw down 120 feet of the wall, and flowed through the city. On the 23rd of April the lava reached the sea, which it entered as a stream 600 yards broad and 40 feet deep. The stream had moved at the rate of 13 miles in twenty days, but as it cooled it moved less quickly, and during the last 23 days of its course it only moved two miles. On reaching the sea the water of course began to boil violently, and clouds of steam arose, carrying with them particles of scorie. The volume of lava emitted during this eruption amounted to many millions of cubic feet. Ferrara considers that the length of the stream was at least 15 miles, while its average width was between 2 and 3 miles, so that it covered at least 40 square miles of surface.

For a few years after this terrible eruption Etna was quiescent, but in 1682 a new mouth opened on the east side of the mountain, and lava issued from it and rushed down the precipices of the Val del Bue. In 1688 a torrent of lava burst from an opening in the great cone, and in the following year lava was emitted from a mouth in the Val del Bue. Early in January 1693 clouds of black smoke were poured from the great crater, and loud noises, resembling the discharge of artillery, were heard. A violent earthquake succeeded, and Catania was shaken to the ground, burying 18,000 of its inhabitants. It is said that in all fifty cities and towns were destroyed in Sicily, together with from 60,000 to 100,000 inhabitants. Lava was emitted from the crater, the cone of which was lowered by the eruption. In the following year Etna again entered into eruption. In March 1702 three mouths opened in the Contrada del Trifoglietto, near the head of the Val del Bue. In 1723, 1732, 1735,

1744, and 1747 slight eruptions occurred. Early in the year 1755 Etna began to show signs of disturbance; a great column of black smoke issued from the crater, from which forked lightning was frequently emitted. Loud detonations were heard, and two streams of lava issued from the crater. A new mouth opened near Rocca di Musarra in the Val del Bue, four miles from the summit, and a quantity of lava was ejected from it. An extraordinary flood of water descended from the Val del Bue, carrying all before it, and strewn its path with large blocks. Recupero estimated the volume of water at 16,000,000 cubic feet, probably a greater amount than could be furnished by the sudden melting of all the winter's snow on the mountain. It formed a channel 2 miles broad, and in some places thirty-four feet deep, and it flowed at the rate of a mile in a minute and a half during the first twelve miles of its course. Lyell considers that the flood was probably produced by the melting not only of the winter's snow, but also of older layers of ice, which were suddenly liquefied by the permeation of hot steam and lava, and which had been previously preserved from melting by a deposit of sand and ashes, as in the case of the ancient glacier found near the summit of the mountain in 1828. In November 1758, a smart shock of earthquake caused the cone of the great crater to fall in, but no eruption occurred at the time. In 1759, 1763, 1766, and 1780 eruptions occurred, and on the 18th of May in 1780 a fissure opened on the south-west side of the mountain, and extended from the base of the great crater for seven miles, terminating in a new mouth, from which a stream of lava emanated. This encountered the cone of Palmintelli in its course, and separated into two branches, each of which was about 4000 feet wide. Other mouths opened later in the year, and emitted larger quantities of lava, while in 1781 and 1787 there were slight eruptions. Five years afterwards a fresh outburst occurred; earthquakes were prevalent, and vast volumes of smoke were carried out to sea, seeming to form a gigantic bridge between Sicily and Africa. A torrent of lava flowed towards Adernò, and a second flowed into the Val del Bue as far as Zuccolaro. A pit called *La Cisterna*, forty feet in diameter, opened in the Piano del Lago near the great cone, and ejected smoke and masses of old lava saturated with water. Several mouths opened below the crater, and the country round about Zaffarana was desolated. In 1797, 1798, 1799, 1800, 1802, 1805, and 1808 slight eruptions occurred. In March 1809 no less than twenty-one mouths of fire opened between the summit of the mountain and Castiglione, and two years afterwards more than thirty mouths opened in a line running eastwards from the summit for five miles. They ejected jets of fire, accompanied by much smoke. In 1819 five new mouths of fire opened near the scene of the eruption of 1811; three of these united into one large crater, and poured forth a quantity of lava into the Val del Bue. The lava flowed until it reached a nearly perpendicular precipice at the head of the valley of Calanna, over which it fell in a cascade, and being hardened by its descent, it was forced against the sides of the tuffaceous rock at the bottom, so as to produce an extraordinary amount of abrasion, accompanied by clouds of dust, worn off by the friction. Mr Scrope observed that the lava flowed at the rate of about a yard an hour nine months after its emission. Eruptions occurred in 1831, 1832, 1833, and 1842. Near the end of the following year, fifteen mouths of fire opened near the crater of 1832, at a height of 7000 feet above the sea. They began by discharging scorie and sand, and afterwards lava, which divided into three streams, the two outer of which soon came to a standstill, while the central stream continued to flow at the rapid rate of 180 feet a minute, the descent being an angle of 25°. The heat at a distance of 120 feet from the current was 90° F. A new crater opened just above Bronte, and discharged lava which threatened the town, but it fortunately encountered Monte Vittoria, and was diverted into another course. While a number of the inhabitants of Bronte were watching the progress of the lava, the front of the stream was suddenly blown out as by an explosion of gunpowder. In an instant red hot masses were hurled in every direction, and a cloud of vapour enveloped everything. Thirty-six persons were killed on the spot, and twenty survived but a few hours. The great crater showed signs of disturbance, by emitting dense volumes of smoke, and loud bellowings, also quantities of volcanic dust saturated with hydrochloric acid, which destroyed the vegetation wherever it fell. A very violent eruption, which lasted more than nine months, commenced on the 26th of August 1852. It was first witnessed by a party of six English tourists, who were ascending the mountain from Nicolosi in order to witness the sunrise from the summit. As they approached, the Casa Inglesi, the crater commenced to give forth ashes and flames of fire. In a narrow defile they were met by a violent hurricane, which overthrew both the mules and the riders, and urged them toward the precipices of Val del Bue. They sheltered themselves beneath some masses of lava, when suddenly an earthquake shook the mountain, and the mules in terror fled away. They returned on foot towards daylight to Nicolosi, fortunately without having sustained injury. In the course of the night, many *boche del fuoco* opened in that part of the Val del Bue called the Balzo di Trifoglietto.



and a great fissure opened at the base of Giannicola Grande, and a crater was thrown up, from which for seventeen days showers of sand and scoriæ were ejected. During the next day a quantity of lava flowed down into the Val del Bue, branching off so that one stream flowed to the foot of Monte Finocchio, while the other flowed to Monte Calanna. The eruption continued with abated violence during the early months of 1853, and did not fully cease till May 27th. The entire mass of lava ejected is estimated to be equal to an area six miles long by two miles broad, with an average depth of about twelve feet. In October 1864 frequent shocks of earthquake were felt by the dwellers on Etna. In January 1865 clouds of smoke were emitted by the great crater, and roaring sounds were heard. On the night of the 30th a violent shock was felt on the north-east side of the mountain, and a mouth opened below Monte Frumonto, from which lava was ejected. It flowed at a rate of about a mile a day, and ultimately divided into two streams. By March 10th the new mouths of fire had increased to seven in number, and they were all situated along a line stretching down from the summit. The three upper craters gave forth loud detonations three or four times a minute. Since 1865 the mountain has been in a quiescent state.

It will be seen from the foregoing account that there is a great similarity in the general character of the eruptions of Etna. Earthquakes presage the outburst; loud explosions are heard; rifts and *boche del fuoco* open in the sides of the mountain; smoke, sand, ashes, and scoriæ are discharged; the action localizes itself in one or more craters; cinders are thrown out and accumulate around the crater in a conical form; ultimately lava rises through the new cone, frequently breaking down one side of it where there is least resistance, and flowing over the surrounding country. Then the eruption is at an end. Out of the 78 eruptions mentioned above, a comparatively small number have been of extreme violence, while many have been of a slight and harmless character.

According to Lyell, Etna is rather older than Vesuvius, —perhaps of the same geological age as the Norwich Crag. At Trezza, on the eastern base of the mountain, basaltic rocks occur associated with fossiliferous Pliocene clays. The earliest eruptions of Etna are older than the Glacial period in Central and Northern Europe. If all the minor cones and monticules could be stripped from the mountain, the diminution of bulk would be extremely slight. Lyell concludes that, although no approximation can be given of the age of Etna, "its foundations were laid in the sea in the newer Pliocene period." From the slope of the strata from one central point in the Val del Bue he further concludes that there once existed a second great crater of permanent eruption.

Such are the principal facts in the history of a volcano, justly called *famoso, immenso, terribile*, which has excited the wonder of all nations in all ages of the history of the world. (G. F. R.)

ETON, a village in Buckinghamshire, is situated on the left bank of the Thames, 21 miles W.S.W. of London, and is connected with Windsor on the opposite bank of the river by a cast-iron bridge erected in 1824. Eton is chiefly celebrated for its college, founded by Henry VI. in 1441, and endowed mainly from the revenues of the alien priories which were suppressed by Henry V. By Edward IV. its possessions were considerably curtailed; but on account of benefactions and the rise in the value of property, its annual income has gradually increased from £652 in the year 1506 till it now exceeds £20,000. The original foundation consisted of a provost, 10 priests, 4 clerks, 6 choristers, a schoolmaster, 25 poor and indigent scholars, and the same number of poor men or beadsmen. In 1443 the number of scholars was increased to 70, and the number of beadsmen reduced to 13. Until lately the government of the college was in the hands of the provost and fellows; but in 1870 the commissioners authorized by the Act of Parliament of 1868 appointed the "new governing body" of Eton to consist of the provost of Eton, the provost of King's College, Cambridge, 5 representatives nominated respec-

tively by the university of Oxford, the university of Cambridge, the Royal Society, the lord chief justice, and the masters, and 4 representatives chosen by the rest of the governing body. By this governing body the foundation was in 1872 made to consist of a provost and 10 fellows (not priests, but merely the other members of the governing body other than the provost), a headmaster of the school, and a lower master, at least 70 scholars, and not more than two chaplains or conducts. Originally it was necessary that the scholars should be born in England, of lawfully married parents, and be between eight and sixteen years of age; but according to the statutes of 1872, the scholarships are now open to all boys who are British subjects, and between twelve and fifteen years of age. A number of foundation scholarships for King's College, Cambridge, are open for competition amongst the boys; and there are besides several valuable extra scholarships and exhibitions, most of which are tenable only at Cambridge, some at Oxford, and some at either university. Besides the scholars of the foundation, Eton College is attended by about 850 scholars, who are either boarded with the masters or reside in private houses, and are called "oppidans." The total expenses of a boy educated as an oppidan average £200 a year. At one time the course of instruction was almost wholly classical; and although there were masters for other subjects, these were unconnected with the general business of the school, and were attended at extra hours. But in 1851 mathematics was incorporated into the curriculum of the school, and in 1869 physical science was introduced as a regular subject. The teachers of modern languages, of mathematics, and of physical science have now the same status, in regard to authority in and out of school, as the teachers of Latin and Greek. Among the celebrated men educated at Eton may be mentioned Sir Robert Walpole, Harley earl of Oxford, Lord Bolingbroke, Earl Camden, the famous earl of Chatham, the Hon. Robert Boyle, Lord Lyttelton, Gray, Shelley, Horace Walpole, West, Waller, Fox, Canning, the marquis of Wellesley, Hallam the historian, the duke of Wellington, Dean Milman, and the earl of Derby. The singular custom termed the *montem*, which was observed here triennially on Whit-Tuesday, has now been abolished. The last celebration of it took place in 1844. It consisted of a procession of the boys in a kind of military order, with flags and music, headed by their "captain," to a small mound called Salt Hill, near the Bath road, where they levied contributions, or "salt," from the passers-by and spectators. The sum collected sometimes exceeded £1000,—the surplus after deducting certain expenses, becoming the property of the "captain" of the school. The building of Eton College was commenced in 1441, and the school was opened in 1442; but the whole original structure was not completed till fifty years afterwards. A new wing was completed in 1846; another block of buildings, containing 15 class-rooms, a music room, and an observatory, was built in 1861; these have been subsequently enlarged, and since the incorporation of physical science into the course of studies, an admirable chemical laboratory has been erected. The older buildings consist of two quadrangles, built partly of free stone but chiefly of brick. The outer quadrangle, or school yard, is inclosed by the chapel, schools, dormitories, and masters' chambers, and has in its centre a bronze statue of the royal founder. The buildings inclosing the inner or lesser quadrangle contain the residence of the fellows, the library, hall, and various offices. The chapel, on the south side of the outer court, is a fine Gothic edifice, containing some interesting monuments, among which is one to Sir Henry Wotton, who was long provost of the college; and at the west end of the ante-chapel is a fine marble statue of the founder in his royal robes, by Bacon. The chapel

has lately been beautified and decorated, and a number of stained-glass windows have been introduced. The library contains a curious and valuable collection of books, a collection of Oriental and Egyptian manuscripts, and some beautifully illuminated missals. There is also a large library for the use of the boys. From the foundation of Eton College the college chapel was used as the parish church until 1854, when a handsome chapel-of-ease was erected at the cost of £8000. With the secularization of the college, the parish of Eton was in 1875 erected into an independent vicarage with the former chapel-of-ease as its parish church. In 1871 the population of the local board district of Eton (exclusive of the Eton boys) was 2806; of the parish, 3261.

See *Memoirs of Eminent Etonians, with Notices of the Early History of the College*, by E. S. Creasy (1850); *Sketches of Eton (1873)*; *History of Eton College from 1440 to 1875*, by H. C. M. Lyte, M.A. (1875); *Memoirs of Celebrated Etonians*, by J. Hensage Jesse (1875); and *The Eton Portrait Gallery*, by a Barrister of the Inner Temple (1875).

ETRURIA. When or by what road the Rasena (Etrusci) reached their permanent seats in Etruria proper is by no means certain, though from the fact of their principal towns being well inland, from the tradition of their having been previously settled in Umbria, from the survival of their peculiar language down to late times among a people of the Rhetian Alps, and from the discovery of works of art in this district corresponding with the earliest Etruscan

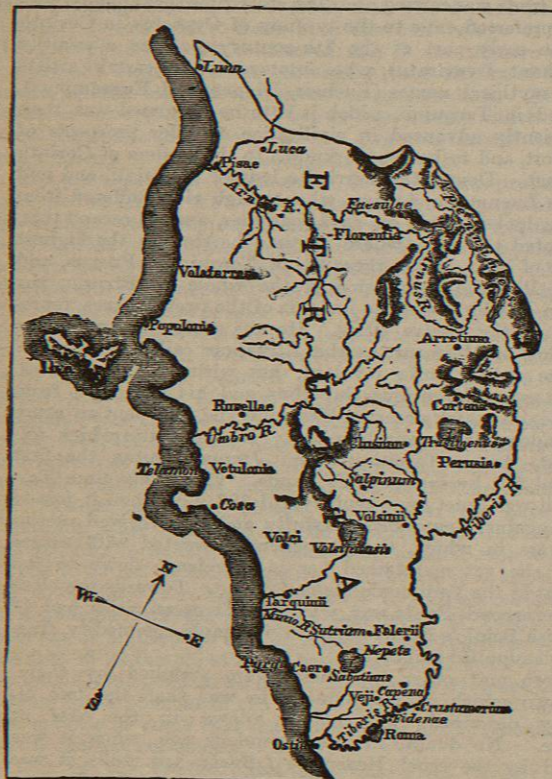


Chart of Etruria.

remains, there would seem to be considerable probability in the theory of their first settlement in Italy having been about the mouth of the Po, whence their progress would be through Umbria and across the Apennines. At the same time, it is to be remembered that, though "Rasena" was the national name of this people, yet there is strong

evidence for supposing that the nationality, as we know it under the classical names of Etrusci or Tyrrheni (Τυρρηνοί, Τυρρηνοί), included another race which, if not nearly allied to the Greeks, had a singularly similar disposition towards the arts, such as it is hardly possible the original Rasena could have brought with them directly from the north. It would account for this other race, if we could accept the tradition (Herodotus, i. 94, Strabo, v. 220) of a body of Lydians having landed in Umbria and colonized Etruria, naming it after their leader Tyrsenus. This Lydian origin was accepted by the Etruscans themselves in late times (Tacitus, *Ann.* iv. 55), and many have seen a confirmation of it in the similarity of the tombs and *tumuli* existing in both countries, and in the records of a singular community between them in such matters as music, games, and costume.<sup>1</sup> Yet a native historian of Lydia (Xanthus) said nothing of the emigration from that country, and Dionysius, who cites him, maintained that the language spoken in Etruria had nothing in common with that of Lydia. The legend of Herodotus is an attempt to explain the name of "Tyrrhenia" as applied by the Greeks to Etruria, owing, doubtless, to its being largely inhabited by members of that same Tyrrhenian race which was found on the coast of Asia Minor and in Thrace, which people Thucydides (iv. 109) identifies with the Pelasgians, while Herodotus himself (i. 57) speaks of the Tyrrhenian town of Creston, by which he means Cortona in Etruria according to Dionysius, as Pelasgic. Another tradition asserted that Pelasgians from Thessaly had entered Italy from the Adriatic at Spina and founded Cortona. While then the Tyrrhenians and Pelasgians were practically the same people, it will be sufficient to use the former name to designate the apparently foreign element in the nationality of the Rasena. In historical times the chief seat of the Tyrrhenians outside of Etruria was in Thrace, where they worked the rich silver mines, and to judge from their coins (*e.g.*, those of the Edones and Bisaltæ) were gifted with much the same disposition towards fine art which is observed in Etruria. From this position in a northern region, and from the traditions of members of the same race having entered Italy from the north-east, it is not unreasonable to suppose that they may have gradually made their way round by land, and may, in fact, have joined the Rasena while they were yet in their settlements at the mouth of the Po. So complete a blending of two races as appears in the Etrusci could scarcely take place unless the original contact had been during a primitive stage of civilization. No doubt there were other Tyrrhenians besides those of Thrace. There were those who were known chiefly as pirates, or as successful in seafaring, and from the circumstance of Cære, which previously had the Tyrrhenian name of Agylla, having been near the coast, it would seem as if part at least of the Tyrrhenians had entered Etruria by sea on the west coast.

It is common enough to find mention of the twelve cities of Etruria, but nowhere are their respective names recorded.

<sup>1</sup> Compare the tomb of Alyattes, still existing, and described by Herodotus (i. 93), with that of Cucumella at Vulci. Tradition said that the Lydian trumpet and the Phrygian double flute had been introduced into Rome from Etruria; that the *protelecta* or official robes, the eagle as a standard, and the game of dice had been brought from Lydia to Etruria. Livy (iv. 17) tells how Lars Tolumnius determined, by means of dice, the fate of the Roman ambassadors who were sent to him at Veii (*cf.* Plutarch, *Vit. Rom.*, xxxiii.); and Festus (s. v. "Sardi") mentions the custom according to which, on occasions of sacrifice for victory at Rome, an old man, dressed in purple, was led to the Capitol, attended by a herald, who proclaimed "Sardians to be sold;" and they explain this custom as having survived from the sale of prisoners after the capture of Veii, which prisoners were Sardians, since Etruria had been colonized by Sardians. This custom, however, seems rather to have originated after the taking of Sardinia by Tib. Sempronius Gracchus.