

which accounts of the structures and functions of different types of animals stand to the conclusion of the biologist. Until there had been such systematic descriptions of different kinds of organisms as made it possible to compare the connexions and forms and actions and modes of origin of their parts, the science of life could make no progress; and in like manner, before there can be reached in sociology generalizations worthy to be called scientific, there must be definite accounts of the institutions and activities of societies, of various types and in various stages of evolution, so arranged as to furnish the means of ascertaining what social phenomena are habitually associated."

In the three volumes of Adolf Bastian, *Der Mensch in der Geschichte*, we have already a kind of ethnological encyclopedia, a mine of interesting facts, collected from the most various sources. The author is a man of great reading, and has himself travelled over the known world. But in 1860, when the book was written, ethnology had not come of age, and instead of allowing the facts to speak for themselves, he marshalled them in ungainly array to make them support metaphysical theses.

Amongst other important books relating to general ethnology are to be named—Klemm's *Allgemeine Culturgeschichte der Menschheit*; Caspari's *Urgeschichte der Menschheit*; Fr. von Hellwald's *Culturgeschichte*; Waitz's *Anthropologie der Naturvölker*; Fr. Müller's *Allgemeine Ethnographie*; Gerland's *Anthropologische Beiträge*; Baer und Schaafhausen, *Der vorgeschichtliche Mensch*; Huxley's *Methods and Results of Ethnology*; Brace's *Manual of Ethnology*; Von Martius, *Ethnographie*. Mr H. Bancroft's *Native Races of America* and Meinike's *Polynesia* cover only parts of our ground, but deserve exceptional record here, from the amount of information which they afford.

Ethnographical maps have been published by Berghaus, Schafarik, Fuchs, Czoernig, Waitz, and others. In Germany, Denmark, and Sweden "maps of the finds" are in progress. Dupont has given out important *Synoptic Tables*.

An ethnological feat, accomplished with the resources of a national budget, that of Austria, is the *Novara Expedition*, which continues the series of the great scientific travels, such as those of the "Beagle" and the "Astrolabe," and those accomplished by Cook, Forster, and Bougainville. The relations given by travellers of what they have seen in foreign parts compose an immense collection, which ethnographers have now to classify, and to sift carefully in order to extract from it all that is useful. Modern descriptions have their peculiar merits, but the value of earlier writers increases in proportion as civilization, which is gradually imported everywhere, destroys the old order of things, and gives an uniform tinge to the intellects and the institutions of all races. Narrations of the mediæval travellers, such as Marco Polo and Ibn Batutah, were never found so interesting as they are now. We peruse again the stories of the *Conquistadores*, the barbarous heroes of modern culture, and those of their twin brothers, the *Conquerors of Faith*, the missionaries of the third Christian period, Franciscans, Dominicans, Jesuits, whose work among the Indians of North and South America, among the races of Africa, the Chinese, and the Japanese, is related in the celebrated collection of the *Lettres Édifiantes*. Acosta, Lafitau, Charlevoix, Duhalde, Dobrizhoffer, have given to the world much information, as have also the modern missionaries, chiefly Protestants, among whom we may cite Williams, Ellis, Isenberg, Krapp, Moffat, Callaway, Casalis, Huc, Eitel, Metz, and, above all, Livingstone.

Although ethnology be a new science, it must not be considered as a new invention. Thirty years ago not a few books were written in France and Germany, which, expounding the "philosophy of history" then in vogue, would now-a-days have expounded the "progress of culture." The most antiquated, inspired by the schools of Hegel and Schelling, contain less of history than of so-called philosophy; the best, inspired rather by Herder and Vico, contain more of facts than of metaphysics. Some of their authors were already ethnologists without knowing it,—among them, Buckle, whose *Civilization in England* may be considered as one of the works which open the new period of history, as modified by ethnology.

The bibliography of a science giving its history in a condensed form, it must be said that the corner-stones of any ethnographer's

library are the works of the great historians Herodotus and Tacitus, and that the first expounder of the modern principles of ethnology is the poet Lucretius.

In contrast with the paucity of the publications which profess to give the synthesis of ethnology, one may notice the superabundance of books, memoirs, essays, and lesser works which discuss all kinds of ethnologic matters and points of detail. Ethnology being in great favour with the public, there appear in reviews and magazines, and even in the weekly and daily press, articles which an ethnographer should diligently collect. A list of these various publications appears every year in the *Brunswick Archiv für Anthropologie*. It is not, and could not be, complete, but, such as it is, it meets most wants.

The learned societies scattered throughout the civilized world act in scientific matters as the lakes and reservoirs of the high lands do in the hydrographic system; they collect and purify the waters of torrents and rivulets, they regulate their outlet. In all European capitals, and in some other cities, as Washington, Toronto, Rio Janeiro, Calcutta, Yeddo, Tiflis, Melbourne, Cairo, savants and scientists meet in Academics, and, in the *Transactions* of their diverse sections, ethnology comes in for a part of their attention. Societies of anthropology and ethnology have constituted themselves as separate bodies in London, Paris, Rome, Florence, Madrid, Vienna, Berlin, Dantzig, Leipsic, Dresden, Munich, and Stuttgart.

From their influence and the date of their foundation, the societies of London and Paris are to be ranked first. To the impulse given by the Société Anthropologique are often ascribed the great strides recently made by anthropology. This association was founded by men who mostly went to work with a precision which originated in the methods of anatomy, physiology, archæology, paleontology, and philology, the lights from which they projected simultaneously on their favourite science. The vastness of Great Britain's colonial empire, the diversity of its climes, races, and creeds, the magnitude of England's commercial navy, which has become the general carrier of the world, the facility with which Englishmen emigrate or travel abroad, have given to ethnographic matters in this country an interest and an importance which they have not elsewhere. Hence the directness and the variety of the communications which are transmitted to the Anthropological Institute in London. The character of the two societies reflects itself in their publications; the *Revue d'Anthropologie*, as edited by Dr Paul Broca, has a preference for biology, and the *Journal of the Institute*, as edited by Mr John Evans and Major-General Lane Fox—the best authorities on flints and on primitive weapons and implements—has a marked preference for archæology and the domestic arts. In almost every considerable town of Germany there is some society affiliated to the large Deutsche Gesellschaft für Anthropologie, Ethnologie, und Urgeschichte, which numbers about 2000 members, and issues the *Archiv für Anthropologie* already named, edited by Dr Virchow, Eck, Lindenschmidt, with many collaborateurs, mostly physicians and naturalists.

Another publication, more ethnological in character, is the *Zeitschrift für Ethnologie*, edited by the great traveller and most learned man, Adolf Bastian. In the Scandinavian countries, and in Hungary, patriotism fosters the prehistoric studies by the hope of throwing some light on the misty figures of gigantic ancestors. Since the discovery of the lake-dwellings, by which a sudden interest was awakened in archæological pursuits, ethnology has been a favourite study in Switzerland. Italy, which also had lake-dwellings as well as terramare, whole cities buried in the soil, &c., and which teems with precious remains of Roman, Greek, Etruscan, and Oriental origin, addicts herself with some zeal to these researches, the results being given forth especially in the *Archivio dell' Antropologia e Etnologia*, and the *Palæo-etnologia Italiana*.

Not to be omitted are the *Tour du Monde*, which has been translated perhaps in every civilized language, and even into Japanese; the *Globus* of Herr Karl André; the *Ausland* of Fr. von Hellwald; the *Matériaux pour servir à l'histoire primitive et naturelle de l'homme* of Cartailhac and Fontduce. Many publications which give occasionally valuable ethnographic information, but which bestow on geography, history, and philology the largest share of their attention, must be passed over. (E. R.E.)

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ETNA. Mount Etna, one of the most celebrated volcanoes in the world, is situated on the eastern sea-board of Sicily. Its position was first accurately determined in 1814 by Captain Smyth, who found the longitude of the highest bifid peak of the great crater to be 15° east of Greenwich, and the latitude 37° 43' 31" N. These results have been very generally accepted by later writers.

There can be no doubt that the name of Etna—*Ætna*—is derived from *αἴθερ*, to burn. This name was known to Hesiod. The more modern name *Mongibello*, by which the mountain is still commonly known to the Sicilians, is a combination of the Italian *monte* and the Arabic *gibel*. During the Saracenic occupation of Sicily (827–1090), Etna was called *Gibel Uttamat*, the mountain of fire; and the second portion of *Mongibello* is a relic of the Arabic name.

*Historical References and Descriptions.*—Etna is often alluded to by classical writers. By the poets it was feigned to be the prison of the giant Enceladus or Typhon, by others the forge of Hephaestus. The flames proceeded from the breath of Enceladus, the thunderous noises of the mountain were his groans, and when he turned upon his side, earthquakes shook the island. Pindar (522–442 B.C.), in his first Pythian Ode, for Hiero of Etna, winner in the chariot race in 474 B.C., exclaims:—"He (Typhon) is fast bound by a pillar of the sky, even by snowy Etna, nursing the whole year's length her jizzling snow. Whereout pure springs of unapproachable fire are vomited from the inmost depth: in the daytime the lava streams pour forth a lurid rush of smoke, but in the darkness a red rolling flame sweepeth rocks with uproar to the wide deep sea." Æschylus (525–456 B.C.) speaks also of the "mighty Typhon" (*Prom. Vincit*). Thucydides (471–402 B.C.) alludes in the last lines of his third book to three early eruptions of the mountain. Many other early writers speak of Etna, among them Theocritus, Virgil, Ovid, Livy, Seneca, Lucan, Petronius, Dion Cassius, Strabo, Diodorus Siculus, and Lucilius junior. While the poets on the one hand had invested Etna with various supernatural attributes, and had made it the prison of a chained giant, and the workshop of a swart god, Lucretius and others endeavoured to show that the eruptions and other phenomena of the mountain could be explained by the ordinary operations of nature. These ideas were developed by Lucilius junior (the friend of Seneca, to whom he addressed his *Questiones Naturales*) in a poem consisting of 640 Latin hexameters, entitled *Etna*. Many of the myths developed by the earlier poets had their home upon the very sides of Etna:—Demeter, torch in hand, seeking Persephone; Acis and Galatea; Polyphemus and the Cyclops.

If we pass to more modern times we find mention of Etna by Dante, Petrarch, Cardinal Bembo, and other Middle Age writers. In 1541 Fazzello made an ascent of the mountain, which he briefly describes in the fourth chapter (entitled "De Ætna Monte et ejus ignibus") of his work *De Rebus Siculis*. He also gives a brief history of the mountain. In 1591 Antonio Filoteo, who was born on Etna, published a work in Venice, entitled *Ætnæ Topographia, Incendiorum Ætnæorum Historia*, in which he describes an eruption which he witnessed in 1536. He asserts that the mountain was then (as now) divided into three "regions"—the first very arid, rugged, uneven, and full of broken rocks; the second covered with forests; and the third cultivated in the ordinary manner. Of the height he says, "Ascensum triginta circiter millia passuum ad plus habet."

The great eruption of 1669 was described at length by the naturalist Borelli in the year of its occurrence. It also formed the subject of a paper in the *Philosophical Transactions*; and a brief account of it was given by the earl of Winchelsea, English ambassador at Constantinople, who was

returning home by way of the Straits of Messina at the time. As the eruption of 1669 was the most considerable eruption of modern times, it attracted a good deal of attention, and was described by several eye-witnesses. A map in the *Bibliothèque Nationale* in Paris gives an imaginary view of the mountain during this eruption. It is the earliest map of the mountain which the library possesses, and is entitled "Plan du Mont Etna, commémoration dit Mont Gibel, en l'Isle de Scicille, et de l'incendie arrive par un tréblement de terre, le 8<sup>me</sup> Mars dernier 1669." Further, in the sacristy of the cathedral of Catania there is a curious wall-painting, which represents broad red streams of lava descending from the Monti Rossi and overwhelming the city. Towards the middle of the next century the mountain was ascended and described by Count D'Orville (1727), by the German Riedesel in 1767, and by Sir William Hamilton, the English ambassador at Naples, in 1769. During the twenty succeeding years it was described by Borch, Swinburne, Denon, Spallanzani, Faujas de Saint-Fond, and Houel. The last, in his *Voyage pittoresque dans les Deux Siciles*, 1782–1786, has given a capital account of the mountain, accompanied by some excellent engravings. In 1776 a clever Irishman named Patrik Brydson published two volumes of a *Tour in Sicily and Malta*, in which he describes at some length his ascent of Etna, and he further states as many facts concerning the history of the mountain as he could collect from the Canon Recupero and others. His account is more complete than any which had appeared in English up to that time, and he is frequently quoted in every account of the mountain with which we have met.

It was reserved, however, for the Abate Francesco Ferrara, professor of physical science in the university of Catania, to write the first history of Etna which has any claim to completeness. It is entitled *Descrizione dell' Etna, con la storia delle eruzioni e il catalogo dei prodotti*. The first edition appeared in 1793, and a second was struck off at Palermo in 1818. It is illustrated by a map, and by some rather rough engravings. The author was born upon the mountain, and was witness to some of its grandest phenomena. His work has evidently been to a great extent a labour of love. It is full of personal observations, while it embodies the principal results of other observers, and furnishes the foundation of all that has since been written about Etna. During 1814–16 Captain Smyth, acting under the direction of the lords of the Admiralty, made a survey of the coast of Sicily, and carefully determined the latitude and longitude of Etna; he also accurately measured the height and examined the surroundings of the mountain. His results were published in 1824, and are still often quoted as the most accurate which exist. In 1824 Dr Giuseppe Gemellaro, who lived all his life upon Etna, and made it his constant study, published an "Historical and Topographical Map of the Eruptions of Etna from the Era of the Sicani to the year 1824." In it he shows the extent of the three regions, *Cultivata, Selvosa, and Deserta*; he lays down the places of the minor cones to the number of seventy-four; and he traces the course of the various lava streams which have flowed from them and from the great crater. About 1847 Baron Sartorius von Waltershausen commenced a minute survey, and a complete examination of the mountain, both geologically and otherwise. He was assisted by a brother professor, and by two Sicilians, and their labours resulted in the production of a fine atlas of Etna, which even in its incomplete form costs £12. Owing to the death of Von Waltershausen, the work was never quite completed, but, as it is, it supplies the most exhaustive history of any one mountain on the face of the earth. Sir Charles Lyell visited Etna three times (in 1824, 1857, 1858), and he has embodied the results of his



researches in a paper communicated to the Royal Society, and in a lengthy chapter in his *Principles of Geology*. His investigations have contributed much to our knowledge of the geological characteristics of the mountain.

The most important recent contribution to our knowledge of Etna has been the fine map of the Stato Maggiore constructed by order of the Italian Government between 1864 and 1868. It embraces the whole of Sicily, and is laid down on the unusually large scale of 1 in 50,000, or 1.266 inch to the mile. The portion relating to Etna and its immediate surroundings occupies four sheets. Plate VII. is a reproduction of this map on a smaller scale. All the small roads, paths, and rivulets are introduced; the minor cones and monticules are placed in their proper positions; and the elevation of the ground is given at short intervals of space over the map. A careful examination of this map shows us that it represents the first accurate survey of the entire mountain. It shows us that distances, areas, and heights have been repeatedly misstated, the minor cones misplaced, and the trend of the coast-line misrepresented.

**Height.**—The height has been often determined. The earlier writers had very exaggerated notions on the subject, and a height of three and even four miles has been assigned. Brydone, Saussure, Shuckburgh, and others obtained approximations to the present height; it must be borne in mind, however, that the cone of a volcano is liable to variations in height at different periods, and a diminution of more than 300 feet has occurred during the course of a single eruption of Etna, owing to the falling of the cone of cinders into the crater. During the last sixty years, however, the height of the mountain has been practically constant. In 1815 Captain Smyth determined it to be 10,874 feet. In 1826 Sir John Herschel, who was unacquainted with Smyth's results, estimated it at 10,872½ feet. The new map of the Stato Maggiore gives 3312.61 metres = 10,867.94 feet. The radius of vision from the summit is very variously stated. Smyth gives it as 150.7 miles, and this we are inclined to adopt as the nearest approach to the truth, because he was an accurate observer, and he made careful corrections both for error of instruments and for refraction. This radius gives an horizon 946.4 miles in circumference, and an included area of 39,900 square miles,—an area larger than that of Ireland.

**Boundaries.**—The road which surrounds the mountain is carried along its lower slopes, and is 87 miles in length. By reference to the map it will be seen that it passes through the towns of Paternò, Biancavilla, Aderò, Bronte, Randazzo, Linguaglossa, Giarre, and Aci Reale. By some writers it is considered to define the base of the mountain, which is hence said, most erroneously, to have a circumference of 87 miles; but the road frequently passes over high beds of lava, and it winds considerably. It is about 10 miles from the crater on the north, west, and east sides of the mountain, increasing to 16 miles at Paternò (S.W.). The elevation on the north and west flanks of the mountain is nearly 2500 feet, rising at its maximum elevation to 3852 feet, while on the south it falls to 1500 feet, and on the east to within 50 feet of the level of the sea. It is quite clear, therefore, that this road cannot be taken as the limit of the base. The natural boundaries of Etna are the rivers Alcantara and Simeto on the north, west, and south, and the sea on the east to the extent of 23 miles of coast, along which lava streams have been traced, sometimes forming headlands several hundred feet in height. The base of the mountain, as defined by these boundaries, is said to have a circumference of "at least 120 miles;" an examination of the new map, however, proves that this is overestimated. If we take the sea as the eastern boundary, the river Alcantara (immediately beyond which Monte di Mojo, the most northerly minor

cone of Etna, is situated) as the northern boundary, and the river Simeto as the boundary on the east and south, we obtain an approximate circumference of 91 miles for the base of the mountain. In this estimate the small sinuosities of the rivers have been neglected, and the southern circuit has been completed by drawing a line from near Paternò to Catania, because the Simeto runs for the last few miles of its course through the plain of Catania, quite beyond the most southerly lava stream.

**Area.**—The area of the region inclosed by these boundaries is approximately 480 square miles. Reclus gives the area of the mountain as 1200 square kilometres = 461 square miles (*Nouvelle Géographie Universelle*, 1875).

**Population.**—There are 2 cities, Catania and Aci Reale, and 63 towns or villages on Mount Etna. It is far more thickly populated than any other part of Sicily or Italy; for while the population of Italy per square kilometre is 90, and of Sicily 88, that of the habitable zone of Etna is 550. No less than 300,000 persons live on the mountain. Thus, with an area rather larger than that of Bedfordshire (462 square miles), it has more than double the population; and with an area equal to about one-third that of Wiltshire, the population of the mountain is greater by nearly 50,000.

**General Aspect.**—The general aspect of Etna is that of a pretty regular cone with very gentle slopes covered with vegetation, except near the summit. The regularity is broken on the east side by a slightly oval valley, four or five miles in diameter, called the Val del Bue. It commences about two miles from the summit, and is bounded on three sides by nearly vertical precipices from 3000 to 4000 feet in height. The bottom of the valley is covered with lavas of various dates, and several minor craters have from time to time been upraised from it. Many eruptions have commenced in the immediate neighbourhood of the Val del Bue, and Lyell believes that there once existed a crater of permanent eruption in the valley. Mount Vesuvius might be almost hidden away in the Val del Bue.

**Regions.**—The Val del Bue is altogether sterile, having been the frequent scene of both fire and flood, but the mountain at the same level, as its middle and lower portions, is on its other sides clothed with forests. The surface of the mountain has been divided into three zones or regions—the *Piedmontana* or *Cultivata*, the *Selvosa* or *Nemorosa*, and the *Deserta* or *Discoperta*.

The lowest of these, the *Cultivated Region*, yields in abundance all the ordinary Sicilian products. The surface soil, which consists of decomposed lavas, is extremely fertile, although of course large tracts of land are covered by recent lavas, or by those which decompose but slowly. In this region the vine flourishes, and abundance of corn, olives, pistachio nuts, mulberries, oranges, lemons, figs, and other fruit-trees. The breadth of the *Cultivata* varies; it terminates at an approximate height of 2000 feet. A circle drawn with a radius of ten miles from the crater roughly defines the upward limit of this region. The elevation of points on the circumference of such a circle is 2310 feet on the north near Randazzo, 2145 feet on the south near Nicolosi, 600 feet on the east near Mascali, and 1145 feet on the west near Bronte. The breadth of the cultivated zone is about two miles on the north, east, and west, and nine or ten miles on the south, if we take for the base of the mountain the limits proposed above.

The *Woody Region* commences where the *Cultivated Region* ends, and it extends as a belt of varying width to an approximate height of 6300 feet. It is terminated above by a circle having a radius of about a mile and a half from the great crater. There are fourteen separate forests in this region,—some abounding with oak, beech, pine, and poplar, others with the chestnut, ilex, and cork tree. The celebrated *Castagno di Cento Cavalli*, one of the largest

and oldest trees in the world, is in the forest of Carpinetto, on the east side of the mountain, five miles above Giarre. The breadth of the Regione *Selvosa* varies considerably: in the direction of the Val del Bue it is very narrow, while elsewhere it often has a breadth of from six to eight miles.

The *Desert Region* is embraced between the limit of 6300 feet and the summit. It occupies an area of about ten square miles, and consists of a dreary waste of black sand, scorie, ashes, and masses of ejected lava. In autumn, winter, and spring it remains permanently covered with snow, and even in the height of summer snow may be found in certain rifts near the summit.

**Minor Cones.**—A remarkable feature of Etna is the large number of minor cones which are scattered over its sides. They look small in comparison with the great mass of the mountain, but in reality some of them are of large dimensions. Monte Minardo, near Bronte, the largest of the minor cones, is still 750 feet in height, although its base has been raised by modern lava streams which have flowed around it. There are 80 of the more conspicuous of the minor cones, but Von Waltershausen has mapped no less than 200, within a ten-mile radius of the crater, neglecting many monticules of ashes. According to Reclus, there are 700 minor cones, while Jukes asserts that there are 600; these statements undoubtedly include the most insignificant monticules, and also the *bocche* and *boccarelle*, from which lava or fire has issued. If these be included, no doubt the above numbers are not exaggerations. The only large and important minor cone which has been raised during the historical period is the double mountain known as Monti Rossi, from the red colour of the cinders which compose it. This was raised from the plain of Nicolosi during the eruption of 1669; it is 450 feet high, and two miles in circumference at the base. In a line between the Monti Rossi and the great crater 33 of the more important minor cones may be counted, and Captain Smyth was able to discern 50 from an elevated position on the mountain. Many of them are covered with vegetation, as the names Monte Faggi, Monte Ilice, Monte Zappini, indicate. In many instances the names have not been happily chosen, and several cones in different parts of the mountain bear the same name: Monte Arso, Monte Nero, Monte Rosso, Monte Frumento, are the most common of these duplicates.

**Ascent of the Mountain.**—The best period for making the ascent of Etna is between June and September, after the melting of the winter snows, and before the falling of the autumnal rains. In winter there are frequently nine or ten miles of snow stretching from the summit downwards, the paths are obliterated, and the guides sometimes refuse to accompany travellers. Moreover violent storms often rage in the upper regions of the mountain, and the wind acquires a force which it is difficult to withstand, and is at the same time piercingly cold. The writer of this article made the ascent of the mountain in the month of August 1877, accompanied by a courier and a guide. The weather was fine and bright, and there had been no rain for more than three months. The temperature in the shade at Catania, and generally along the eastern coast of Sicily, was a mean of 82° Fahr. The party left Catania soon after mid-day, and drove to Nicolosi, 12 miles distant, and 2288 feet above the sea. The road for some distance lay through a very fertile district; on both sides there were corn-fields and vineyards, and gardens of orange and lemon trees, figs and almonds, growing in the decomposed lava. The road passes through several small villages,—Pasquali, Gravina, and Mascalucia—the last a town of 4000 inhabitants. Soon after this the Monti Rossi are seen apparently close at hand, the village of Torre di Grifo is passed, and the road then enters a nearly barren district, covered with the lava of 1537. The only prominent vegetation is a

peculiar tall broom (*Genista Etnensis*), which flourishes here. Nicolosi was reached at half-past 4 o'clock, and after dinner in the one room of the very primitive inn, a start was made for the summit at 6 o'clock. For a short distance above Nicolosi stunted vines are seen growing in black ashes, but these soon give way to a large tract covered with lava and ashes, with here and there patches of broom. At half-past eight o'clock P.M. the temperature was 66° Fahr. About 9 o'clock the *Casa del Bosco* (4216 feet) was reached, at the foot of Monte Rinazzi, a small house in which several men live who have charge of the forest. After an hour's rest, the ascent of the higher regions was commenced, a great-coat and a double waistcoat being put on as a protection against the increasing cold. The air was extraordinarily still at this time; the flame of a candle placed near the open door of the *Casa del Bosco* did not flicker. The ascent from this point led through forests of pollard oaks, in which it was quite impossible to see either a path or any obstacles which might lie in one's way. The guide carried a lantern, and the mules seemed well accustomed to the route. At about 6300 feet above the sea the *Regione Deserta* was entered, a lifeless waste of black sand, ashes, and lava; the ascent now became more steep, and the air was bitterly cold. There was no moon, but the stars shone in extraordinary numbers and with wonderful brilliancy, sparkling like particles of white-hot steel. The milky way gleamed like a path of fire, and meteors flashed across the sky in such numbers as to baffle any attempt to count them. The vault of heaven seemed to be much nearer than when seen from the earth, and also more flat, and as if only a short distance overhead, and some of the brighter stars appeared to be hanging down from the sky. The idea of erecting an observatory on Mount Etna was brought forward last year, when Professor Tacchini, the astronomer-royal at Palermo, communicated a paper to the Accademia Gioenia, entitled *Della Convenienza ed utilità di erigere sull'Etna una stazione Astronomica Meteorologica*, in which he refers to the extraordinary blueness of the sky as seen from the higher regions of Etna, and the appearance of the sun in a telescope, which is "whiter and more tranquil" than when seen from below, moreover the spectroscopic lines are defined with wonderful distinctness.

Toiling along the slopes of the *Regione Deserta*, at length the travellers reach the *Piano del Lago*, or *Plaip* of the Lake, so called because a lake produced by the melting of the snows existed here till 1607, when it was filled up by lava. The air is now excessively cold, and a sharp wind is blowing. Progress is very slow, the soil consists of loose ashes, and the mules frequently stop. The guide maintains that the *Casa Inglese* is quite near, but the stoppages become so frequent that it seems a long way off; at length it becomes necessary to dismount, and after a toilsome walk the small lava-built house called the *Casa Inglese* is reached (1.30 A.M., temperature 40° Fahr.) It stands at a height of 9652 feet above the sea, near the base of the cone of the great crater. The *Casa Inglese* takes its name from the fact that it was erected by the English officers stationed in Sicily in 1811. It has suffered severely from time to time from the pressure of snow, and from earthquakes, but it was thoroughly repaired in 1862, on the occasion of the visit of Prince Humbert, and is now in tolerable preservation. At 3 A.M. the *Casa Inglese* is left for the summit of the great crater, 1200 feet above, in order to be in time to witness the sunrise. The road lay for a short distance over the upper portion of the *Piano del Lago*, and the walking was very difficult. The brighter stars had disappeared, and it was much darker than it had been some hours earlier. The guide led the way with a lantern. The ascent of the cone was a ver-