

5.
CHEAP TRACTS, No. 6.

Awful Phenomena of Nature!

Burning Mountains.

AN ACCOUNT OF A LATE ERUPTION OF

VESUVIUS;

Discovery of Herculaneum;

Which was overwhelmed by an eruption in the year 79:

WITH AN HISTORICAL ACCOUNT OF

MOUNT ETNA.

*The dread Volcano, ministers to good;
Its smothered flames might undermine the world.*



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A NEW PHENOMENON OF NATURE

Burning Mountains.

AN ACCOUNT OF THE LATE ERUPTION OF

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The late Eruption of Vesuvius.

One of the grandest, and at the same time the most awful spectacles in nature is that of an active volcano, throwing out ashes, pumice stones, and cinders, and pouring forth a torrent of ignited lava, which, like a vast deluge of liquid fire, lays waste the country over which it runs, and buries all the works of human art.

Volcanoes, are found in almost all parts of the world, but most commonly in the neighbourhood of the sea, and especially in small islands; for instance, in Italy, Sicily, Iceland, Japan, the Caribee, Canary, and Cape Verd Islands, and the Azores. There

are also numerous volcanoes in Mexico and Peru, especially Pichincha and Cotopaxi. The subterraneous fires which are continually kept up in an open volcano, depend in general on sulphureous combination and decomposition, like the heating of a heap of wet pyrites, or the union of sulphur and iron filings; but in other cases they approach more nearly to the nature of common fires. A mountain of coal has been burning in Siberia for almost a century, and must probably have undermined, in some degree, the neighbouring country.

The two most remarkable volcanoes are those of Mount Etna and Mount Vesuvius; and the following is an account of a recent eruption of the latter.

This celebrated volcano, which has for so many ages attracted the attention of mankind, and the desolating eruptions of which have been so often and so fatally experienced, is distant, in an eastern direction, about seven miles from Naples. It rises, insulated upon a vast and well cultivated plain, presenting two summits on the same base; in which particular it resembles Mount Parnassus. One of these, La Somma, is generally agreed to have been the Vesuvius of Strabo and the ancients; the other, having the greatest elevation, is the mouth of the volcano, which almost con-

stantly emits smoke. Its height above the level of the sea is 3,900 feet, and it may be ascended by three different routes, which are very steep and difficult, from the conical form of the mountain, and the loose ashes which slip from under the feet; still from the distance it is not more than three Italian miles. The circumference of the platform on the top is 5,024 feet, or nearly a mile. Thence may be seen Portici, Capra, Ischia, Pausilippo, and the whole coast of the Gulf of Naples, bordered with orange-trees: the prospect is that of Paradise seen from the infernal regions.

On approaching the mountain, its aspect does not convey any impression of terror, nor is it gloomy, being cultivated for more than two-thirds of its height, and having only its brown top barren. There all verdure ceases; yet when it appears covered with clouds, which sometimes encompass its middle only, this circumstance rather adds to, than detracts from, the magnificence of the spectacle. Upon the lava which the volcano long ago ejected, and which, like great furrows, extends into the plain, and to the sea, are built houses, villages, and towns. Gardens, vineyards, and cultivated fields surround them, but a sentiment of sorrow, blended with apprehension about the future, arises, on the

recollection, that beneath a soil so fruitful and so smiling, lie edifices, gardens, and whole towns, swallowed up. Portici rests upon Herculaneum; its environs upon Resina; and at a little distance is Pompeii, in the streets of which, after more than seventeen centuries of non-existence, the astonished traveller now walks. After a long interval of repose, in the first year of the reign of Titus (the 79th of the Christian era,) the volcano suddenly broke out, ejecting thick clouds of ashes and pumice stone, beneath which Herculaneum, Stabia, and Pompeii, were completely buried. This eruption was fatal to the elder Pliny, the historian, who fell a victim to his humanity and love of science.

There have been thirty-nine eruptions of Mount Vesuvius recorded by historians; the last one makes the fortieth. Previous to the recent eruption, Vesuvius displayed all round the openings which it had made at different periods, and to which they gave the name of mouths. From those openings flowed the lava, the name given the torrents of liquified matter which rushed out of the bursting sides of the Mount.

Running from the summit, it spread over the fields at the bottom, and to the sea. The matter, when cold, hardens to stone. It is used to pave the streets of

Naples, and in the erection of solid buildings. The depth of the gulf, or boiling matter, from which arises a constant smoke is calculated to be about 543 feet. It is common, at all times when it has rained much, to see torrents of water descend with a loud noise from Vesuvius; but those which descend during an eruption do the most damage.

These waters, stopped at the foot of the mountain by immense masses of cinders and sand, which from a sort of dyke, augment their force, and render the fall more impetuous. To these floods of water shocks of earthquakes are added, which continue at intervals during a month together.

The new eruption commenced on the 20th of October, about twelve o'clock. A dreadful internal noise was heard throughout the neighbourhood; the lava began to appear, and soon flowed in a torrent about a mile broad. The next day a second body of lava, half a mile in breadth, issued forth and covered the old lava, on the side of Pasco-Tre-Case: a third and fourth stream soon afterwards burst forth.

The following particulars of the progress of the eruption are from private letters:—

NAPLES, October, 23.—You will have heard, my dear brother, before, this reaches

you, of the awfully grand eruption of Vesuvius. Nothing similar has been witnessed since 1794, when the town of Torre del Greco, situated at about four miles from the crater, was partly destroyed. During the evening of the 21st, a little smoke appeared, and distinct reports of artillery, as it seemed, proceeded from that part of the bay. Had the sky not been perfectly serene, one would have considered it to be thunder. Towards nine o'clock, however, a little fire appeared at the old crater, and left us no longer in doubt about the cause of the intonations. At a few minutes past Eleven, it burst forth in all its fury, throwing out stones to a great height. In three hours afterwards, the lava rolled forth in two grand streams, one taking towards Resina, where the king's Villa, called La Favorita, is situated, and the other inclining in a more southerly direction to Torre del Annunziata. The torrent of lava which flows towards Resina has already covered 100 acres of ground. The showers of ashes darken the sky, and fall even in the streets of the capital. The stones which have fallen at Bosco-Tre-Case have accumulated to the height of five palms. The eruption of stones are frequent, and the sounds which issue from the mountain are frightful. All the people who lived near the volcano

have fled. About 800 persons from the neighbouring villages have been received by order of the Police and Prefecture.

Oct. 25.—The fire seems to-day to be spent, but as the wind has changed to the south east, or, as it is called, Sirocco, the smoke and ashes have come over Naples and the mountain, with Portici, and along the bay, are invisible, while at mid-day, torches are almost necessary, and umbrellas absolutely so. The King's Villa at Resina was yesterday stripped of its furniture, and I may say that the whole line of coast, Portici to Castel-a-Mar, has been abandoned, unless we except the curious who flock in crowds to see what is passing. The eruption of cinders and smoke at this moment presents the appearance of a very thick and elevated black cone, which the wind blows towards Somma, Ottajano, and Nola. The number of individuals who fled from the villages augmented considerably yesterday. Last night about 2000 of these unfortunate persons received pecuniary assistance.

Oct. 26.—We expect that the eruption will soon entirely cease. The columns of cinders and smoke are decreasing, and the detonations are less frequent and loud than heretofore. Most of the people who had fled are returning to their homes. It

ained copiously last night, which has had the effect of purifying the atmosphere, which before was filled with clouds of black ashes. The rain, too, has washed the plants, which have assumed their natural colour and appearance, which under our climate is, even at the end of autumn, so striking and agreeable. The summit of Vesuvius is visible, and it appears that the dreadful eruption which has taken place has torn away a part of the crest of the volcano.

Oct. 28.—The eruption is completely at an end; but violent explosions of cinders still continue. The inhabitants of the country have returned to their homes. Portici and la Torre del Greco have suffered no other injury than what arises from their being in a great part covered with ashes and stones. A portion of the territory of Resina is covered with lava, but only where lava had formerly lain. The tower of the Annunziata has sustained injuries which it will not be easy either to estimate or repair. At Ottaiano the fire has consumed 52 acres of wood. These are all the details which have hitherto reached us.

The following additional particulars of this interesting event are contained in another private letter from Naples dated October 29:—

Vesuvius is comparatively quiet, but it still throws out immense columns of smoke,

and the *lapillo* and fine ashes continue to rain round the country according to the direction of the wind. Yesterday the wind blew over Naples, and it was a very rainy day. To my surprise, on going out, I found that the water which fell was of the colour of mud; indeed so thickly was it mixed with a shower of the fine volcanic ashes that it has besmeared the houses and trees and every thing exposed, in a most curious manner.

The first stream of lava thrown out at the west side of the crater, was about half a mile in breadth; it passed between the hermitage of San Salvatore and the ruins of a little country-house belonging to the King and descended towards Resina. After having damaged a considerable deal of land, it stopped at a spot called Il Monte.

The second came out at the same time, and from the same mouth as the first; it was about two miles broad, and descended towards the village called Bosco di tre Case; but as it run over former lava, it did no injury.

The third proceeded from a mouth that opened during this eruption low down the sides of the volcano; it ran towards the place called Il Monte, but it also flowing over old lava, did no injury. The second and third stopped nearly in the same place.

The fourth and last descended from an old mouth called Vulcano, on the south side; reaching Pedemontina, it joined itself with a smaller stream of lava, thence it ran on over old lava, as far as the hollow called Atrio del Cavallo. It seemed to menace La Torre del Greco.

It has been observed that the volcanic matter, not lava, thrown out by Vesuvius this time, taken in mass, is much more considerable than the lava itself.

The damage done by the eruption is not so considerable as the dreadful and menacing appearances of the mountain would have induced me to imagine. Portici and the Torre del Greco have suffered no other inconvenience than that arising from some sharp showers of *lapillo* and ashes. Resina has had about twenty *moggia* of land covered. A *moggia* is a Neapolitan measure, equivalent to about four-fifths of an English acre. From the Torre del Greco to the Torre del Annunziata, the road is now covered to the depth of two feet with *lapillo* and fine ashes. The Torre del Annunziata has suffered most; all its finely cultivated lands are covered with a very thick stratum of *lapillo* and ashes. Near Ottajano, about forty or fifty *moggia* of wood were consumed. Yesterday, this part suffered greatly from a deluge of warm water, mixed with ashes.

A great number of labourers, aided by Austrian and Neapolitan soldiers, are employed in clearing the roads. The heavy rains which are expected at this season will do much, but I fear that the country round the Torre del Annunziata will not be speedily restored to the industry of man.

The distance at which the fine ashes have fallen is astonishing; the master of an English vessel, which came in last Saturday, gathered them on the deck the Wednesday evening preceding, when he was off the Tuscan coast, at least two hundred miles from Naples.

THE DISCOVERY OF HERCULANEUM.

THE discovery of the ancient city of Herculaneum, justly excited the curiosity of all men of letters, on account of the numerous lights which the curiosities found herein might be expected to throw upon the history of the ancient arts, &c. These expectations were well founded; for the pictures, in particular, which were found here, may convey to us a good idea of the state of painting among the ancients.

Herculaneum was situated between Naples and Pompeii, near the sea, on the banks of the Sarno, and at the foot of

Vesuvius; between the spot where now stands the royal palace of Portici, and the village of Resina. If this tract of country so pleasant now, after so many repeated eruptions of Vesuvius, we may well suppose it to have been much more so, when the Romans retired to it, either from pleasures or business, and ornamented it with their villas. We need not wonder, therefore, if so small a city as Herculaneum should contain a theatre, and other magnificent buildings, adorned with a great profusion of paintings and sculptures, many of them certainly in a good taste, among a much larger number of bad ones.

Herculaneum was overwhelmed by a violent eruption of Mount Vesuvius, on the 1st of November, in the year of Christ, and the first of the reign of Titus. Before this, Pompeii had been entirely, and Herculaneum in great part, destroyed by a terrible earthquake, which happened about sixteen years before, and lasted several days.

That eruption of Vesuvius, in which Herculaneum was destroyed, is the first on record. Dio Cassius relates, that this eruption was accompanied by violent earthquakes and tremendous noises; that the flames, and fiery stones, filled the air,

earth, and sea, to the destruction of all herds, and fields, and all the birds and fishes; that the sun was as it were eclipsed, and the day turned into night; that Rome was covered with showers of ashes, which extended even to Africa, Syria, and Egypt; that Herculaneum and Pompeii were destroyed; and, in short, that the scene was so dreadful, and the confusion of the inhabitants so great, those who were at sea running to land, those who were at land to sea; those who were in houses making for the fields, those who were in the fields for houses; that people thought either that chaos was returned again, or that the universal conflagration of the earth was commencing.

Dreadful as this calamity was, it appears that the cities were not buried so suddenly, but that the inhabitants had time to save themselves and the most valuable of their effects; very few bones have been hitherto found, and very little money, plate, or other moveables of great value.

The first discovery of subterranean ruins, was made in the year 1689; when on opening the earth at the foot of Mount Vesuvius, the workmen observed regular strata of earth and vitrified stone. This disposed the owner of the ground to continue the digging, and at the depth of twenty-one feet he found some coals, iron

keys of doors, and two inscriptions, from which it appeared that the ancient city of Compiti formerly stood there.

In the year 1711, the duke di Belbofi, desiring to build himself a villa on the sea-shore at Portici, had a mind to cover some of the ground-rooms with plaister. He knew that some of the inhabitants of Resina, in digging for a well, had found fragments of antique Grecian marble, and therefore ordered the workmen to continue digging as deep as the water would permit, in order to get a sufficient quantity of this marble for his plaister. Scarce had they begun their operations, when they found some beautiful statues, among which, was one of Hercules, in marble, and another thought to be a Cleopatra. Proceeding farther, they met with several columns of coloured alabaster, belonging to a temple of a circular form, adorned on the outside with twenty-four columns, the greatest part of which were of the yellow antique; the inside of the temple had the same number of columns, between which were statues of Grecian marble, and it was paved with the yellow antique. The statues were sent to Vienna by the duke di Belbofi, as a present to prince Eugene of Savoy. After this, all farther search was discontinued, for fear of getting into a dispute with the ministers of state.

In December 1738, his Sicilian majesty being at Portici, and some fragments of marble having been found in the well which the duke di Belbofi had sunk, the king gave immediate orders for the bottom of it to be searched: whereupon the workmen cutting by the hole which the duke had made, found several fragments of statues, &c. seventy feet below the present surface.

On pursuing their work, new discoveries opened upon them,—a theatre, temple, streets, &c. Most of the houses were found to be decorated both within and without with paintings, which with the statues form the most valuable part of these subterranean treasures. The grounds of the paintings were seldom bright, but generally of some dark colour, black, green, yellow or dusky red. The stucco was very thick and the workmen contrived to cut it from the walls without the least injury to the paintings. They were done in pannels with grotesque ornaments round them, not in *fresco*, as was at first supposed, but in *distemper*; that is, the colors were not mixed up with water, and incorporated with the wall itself, by laying it on while the stucco was wet; but with size or some other glutinous matter, and laid on superficially.

The connoisseurs have greatly varied in their judgment of these paintings; some extolling the coloring and the design above the modern art, and others depreciating them. In general, however, if we except some few, we may discover in them the touches of a master, great spirit, and profound study.

A DESCRIPTION OF MOUNT ÆTNA,

May, 1740.

ON the 27th, by day break, we set off to visit mount Ætna, that venerable and respectable father of mountains! His base, and his immense declivities, are covered with a numerous progeny of his own; for every great eruption produces a new mountain; and perhaps, by the number of these, better than any other method, the number of eruptions, and the age of Ætna itself might be ascertained.

The whole mountain is divided into three distinct regions, called the *Fertile Region*; the *Woody Region*; and the *Barren Region*.

These three are as different, both in climate and productions, as the three zones of the earth; and perhaps, with equal propriety, might have been styled the *Torrid*, the *temperate*, and the *Frigid zone*. The first

region surrounds the mountain, and constitutes the most fertile country in the world on all sides of it, to the extent of above fourteen or fifteen miles, where the wooded region begins. It is composed almost entirely of lava, which, after a number of ages is at last converted into the most fertile of all soils.

At Catania, the harvest was entirely over, and the heats were insupportable; here they were moderate, and in many places the corn is as yet green. The road for the twelve miles is the worst I ever travelled entirely over old lavas and the mouths of extinguished volcanoes, now converted into corn fields, vineyards, and orchards.

The fruit of this region is reckoned the finest in Sicily, particularly the figs, which they have a great variety. One of these of a very large size, esteemed for flavour above all the rest, they pretend peculiar to Ætna.

The lavas, which as I have already seen form this region of the mountain, take their rise from an infinite number of the most beautiful little mountains on earth, which are every where scattered on the immense declivity of Ætna. These are all of a regular figure; either that of a cone, semisphere; and all but a very few are covered with beautiful trees, and the richest verdure: Every er-

ion generally forms one of these mountains. As the great crater of *Ætna* itself is raised to such an enormous height above the lower regions of the mountain, it is not impossible, that the internal fire raging for a vent, even round the base, and no doubt vastly below it, should be carried to the height of twelve or fifteen thousand feet, for probably so high is the summit of *Ætna*. It has therefore generally happened, that after shaking the mountain and its neighbourhood for some time, it at last bursts open its sides, and this is called an eruption. At first it only sends forth a thick smoke and showers of ashes, that lay waste the adjacent country: These are soon followed by red hot stones, and rocks of a great size, thrown to an immense height in the air. The fall of these stones, together with the quantities of ashes discharged at the same time at last form the spherical and conical mountains I have mentioned. Sometimes this process is finished in the course of a few days, sometimes it lasts for months, which was the case in the great eruption 1669. In that case, the mountain formed is of a great size; some of them are not less than seven or eight miles round and upwards of 1000 feet in perpendicular height; others are not more than two or three miles round, and 3 or 400 feet high.

Our landlord at Nicolosi gave us an account of the singular fate of the beautiful country near Hybla at no great distance from hence. It was so celebrated for its fertility, and particularly for its honey, that it was called Mel Passi, till it was overwhelmed by the lava of Ætna. The mountain from whence the first eruption issued, that covered Mel Passi, is known by the name of Monpelieri. This mountain was formed by the first eruption that destroyed the country of Mel Passi, and is of a very old date. It buried a great number of villages and country houses, and particularly two noble churches, which are more regretted than all the rest, on account of three statues reckoned at that time the most perfect in the island. They have attempted, but in vain, to recover them, as the spot where the churches stood could never be justly ascertained. Indeed it is impossible it should, for these churches were built of lava, which it is well known is immediately melted, when it comes in contact with a torrent of new erupted matter: As Massa says, that in some eruptions, of Ætna, the lava has poured down with such a sudden impetuosity, that in the course of a few hours, churches, palaces, and villages, have been entirely melted down, and the whole run off in fusion, without leaving the least mark of their former existence. But if the lava had any considerable time to cool, this singular effect never happens.

The great eruption of 1669, after shaking the whole country round for four months, and forming a very large mountain of stones and ashes, burst out about half a mile above Monpelieri, and descending like a torrent, bore directly against the middle of the mountain, and (they pretend) perforated it from side to side; this however, I doubt, as it must have broken the regular form of the mountain, which is not the case. But certain it is, that it pierced to a great depth. The lava then divided in two branches; and

ounding this mountain, joined again on its south side; and laying waste the whole country betwixt it and Catania, scaled the walls of that city, and poured its flaming torrent into the ocean. In its way, it is said to have destroyed the possessions of near 10,000 people; and reduced them to beggary. It formed several hills, where there were formerly vallies, and filled up a large lake, of which there is not now the least vestige to be seen.

As the events of this eruption are better known than any other, they tell a great many singular stories of it; one of which, however incredible it may appear, is well ascertained. A vineyard, belonging to a convent of Jesuits, lay directly on its way. This vineyard was formed on an ancient lava, probably a main one, with a number of caverns and crevices under it.

The liquid lava entering into these caverns, soon filled them up, and by degrees bore up the vineyard; and the Jesuits, who every moment expected to see themselves buried, beheld with amazement the whole field begin to move off. It was carried on the surface of the lava to a considerable distance; and though the greatest part was destroyed, yet some of it remains to this day.

In an hour and a half's travelling, after we left Nicolosi, over barren ashes and lava, we arrived on the confines of the Regione Sylva, or the Temperate Zone. As soon as we entered these delightful forests, we seemed to have got into another world. The air, which before was sultry and hot, was now cool and refreshing; and every breeze was loaded with a thousand perfumes, the whole ground being covered over with the richest aromatic plants. Many parts of this region are surely the most heavenly spots upon earth; and if *Ætna* resembles the infernal regions within, it may with equal justice be said to resemble paradise without.

It is indeed a curious consideration, that this mountain should re-unite every beauty and every

horror: in short, all the most opposite and dissimilar objects of nature. Here you observe a gulph, that formerly threw out torrents of fire, now covered with the most luxuriant vegetation; and from an object of terror, become one of delight. Here you gather the most delicious fruit, rising from what was but lately a black and baren rock. Here the ground is covered with every flower; and we wander over these beauties, and contemplate this wilderness of sweets, without considering that but a few yards separate us from liquid fire and brimstone.

But our astonishment still increases, on casting our eyes on the higher regions of the mountain. There we behold in perpetual union, the two elements that are at perpetual war; an immense gulf of fire, for ever existing in the midst of snows which it has not power to melt: and immense fields of snow and ice for ever surrounding this gulph of fire, which they have no power to extinguish.

The woody region of *Ætna* ascends for about eight or nine miles, and forms a zone or girdle, of the brightest green, all around the mountain. This night we passed through little more than the half of it, arriving some time before sun-set at our lodging, which was no other than a large cave, formed by one of the most ancient and venerable lavas. It is called *La Spelonca Del Capriole*, or the goats cavern, because frequented by those animals; who take refuge there in bad weather.

Here we were delighted with the contemplation of many grave and beautiful objects; the prospect on all sides is immense; and we already seem to be lifted from the earth, and to have got into a new world.

The *Regione Deserta*, or the frigid zone of *Ætna* is the first object that calls your attention. It is marked out by a circle of snow and ice, which ex-

ds on all sides to the distance of about eight miles. In the centre of this circle the great crater of the mountain rears its burning head; and the regions of intense cold and of intense heat seem for ever to be fixed in the same point.—On the north side of the snowy region, they assure us, there are several small lakes that are never thawed; and that in many places, snow, mixed with the ashes and salts of the mountain, is accumulated to a vast depth.

We had now time to examine a fourth region of the wonderful mountain, very different indeed, from the others, and productive of very different sensations: which has, undoubtedly, given being to all the others; I mean the *region of fire*.

The present crater of this immense volcano is a circle of about three miles and a half in circumference. It goes shelving down on each side and forms a circular hollow like a vast amphitheatre. From many places of this space, issue volumes of sulphureous smoke, which, being much heavier than the surrounding ambient air, instead of rising in it, as smoke usually does, immediately on its getting out of the crater, rolls down the side of the mountain like a torrent, till coming to that part of the atmosphere of the same specific gravity with itself, it shoots off horizontally, and forms a large track in the air, according to the direction of the wind; which happily carries it exactly to the side opposite to that where we were placed. The crater is so hot, that it is very dangerous, if not impossible to go down it; besides, the smoke is very incommodious, and in many places, the surface is so soft, that there have been instances of people sinking down in it, and paying for their temerity with their lives. Near the centre of the crater is the great mouth of the volcano. When we reflect on the immensity of its depth, the vast cells and caverns whence so many lavas have issued; the power of its internal fire, to raise up those lavas to so

vast a height, to support as it were in the air, even to force it over the very summit of the cone with all the dreadful accompaniments; the boiling of the matter, the shaking of the mountain, the emissions of flaming rocks, &c. we must allow, that the most enthusiastic imagination, in the midst of all these terrors, hardly ever formed an idea of a punishment more dreadful.

It was with a mixture both of pleasure and pain that we quitted this awful scene. But the wind had risen very high, and clouds began to gather round the mountain. In a short time they formed another heaven below us, and we were in hopes of seeing a thunder-storm under our feet: A scene is not uncommon in these exalted regions, and which I have already seen on the top of the high Alps; but the clouds were soon dispelled again by the force of the wind, and we were disappointed in our expectations.

We left the summit of the mountain about six o'clock, and it was eight at night before we reached Catania.—We observed, both with pleasure and surprise, the change of the climate as we descended—the regions of the most rigid winter, we soon approached those of the most delightful spring. On first entering the forests, the trees were still bare as in winter, not a single leaf to be seen; but after we had descended a few miles, we found ourselves in the mildest, and the softest of climates: the trees were in verdure, and the fields covered with all the flowers of the summer; but as soon as we got out of the valley and entered the torrid zone, we found the heat together insupportable, and suffered dreadfully from it before we reached the city.

FINIS.