

'Ode to the West Wind' and Volcanology

Yoshico Cato

(1) Introduction

It is well known that from his childhood Percy Bysshe Shelley had a great interest in science. According to his biography,¹ he always showed a deep interest in science, and conducted various kinds of experiments under the influence of a teacher called Adam Walker at Sion House Academy, and at Eton College under the special supervision of Dr. James Lind. But these facts are apt to be treated merely as biographical data and as having nothing to do with his poetic interpretation.

It is interesting to note, however, that though G. M. Matthews² does not have much to say about the 'Ode to the West Wind,' he has suggested that such volcanic craters as Mt. Vesuvius and Agnano near Naples might have been the sources of the Mountain of Demogorgon in *Prometheus Unbound*.

Further, according to Richard Holmes,³ it is clear that Shelley seems to have borrowed a book by Abbé Augustin Barruel,⁴ a French revolutionary, from his friend Thomas Jefferson Hogg soon after he entered University College, Oxford, and that he read it again and again, especially its Second Volume, says Holmes, which is in the Berg Collection, New York Public Library, and shows many traces of notes written in it by Shelley. At the beginning of the Fourth Volume, a revolution is compared to a volcanic explosion, which makes it certain that Shelley had already absorbed the imagery of revolution as a "volcanic explosion" when he was a student at

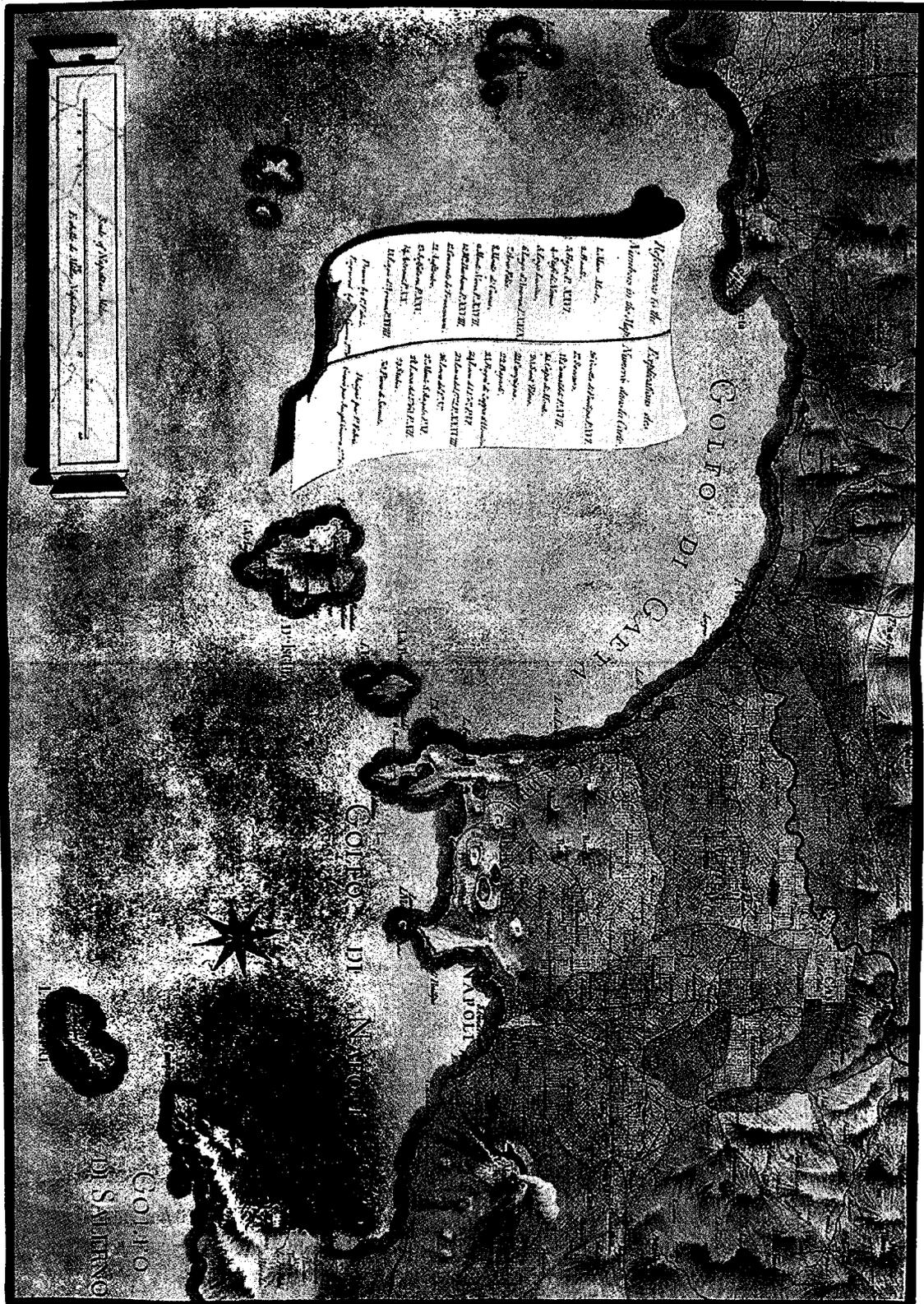


Illustration 1. A map of Campi Phlegraei from Hamilton's *I Campi Phlegraei*. Photographed by Tadashi Abiko.

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Illustration 2. A coloured drawing of an eruption of Mt. Vesuvius, *ibid.* Photographed by T. Abiko.

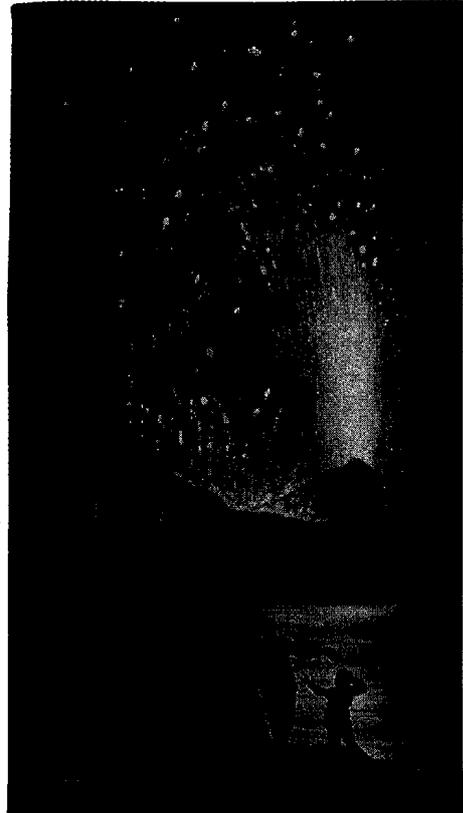


Illustration 3. A coloured drawing of an eruption of Mt. Vesuvius, *ibid.* Photographed by T. Abiko.

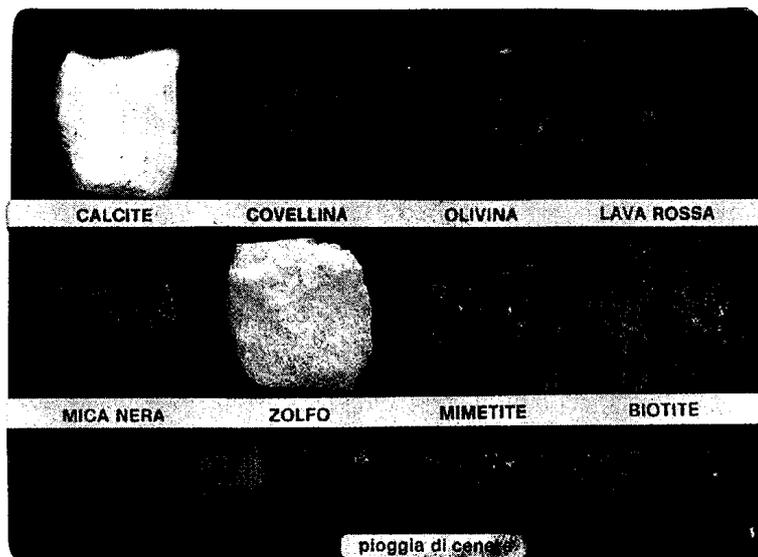


Illustration 4. Samples of minerals sold at Mt. Vesuvius. Photographed by T. Abiko. These minerals show all “the four colours”, “black, yellow, pale, and hectic red” of “the dead leaves” in the first stanza of Shelley’s ‘Ode to the West Wind.’

Oxford.

This essay sets out to prove that Shelley's poetry is throughout studded with new scientific knowledge, the most advanced at that time, as mediated through the essays of Sir William Hamilton published in the *Philosophical Transactions* of the Royal Society, which Shelley was known to be reading during his Eton days.

(2) A Shelley Letter from Naples

A study of the influence of Italian culture upon English literature leads us to realize that Shelley wrote most of his poetry while he was living in Italy as a grand tourist. A survey of the history and routes of the grand tour which came to be very popular amongst the British aristocracy from the seventeenth century onwards, and of the travel literature of those times tells us that an important purpose of the grand tourists was to visit historical places in Italy related to such classic poets as Virgil.

A letter from Shelley to Thomas Love Peacock dated December 17th or 18th, 1818, reveals that he was no exception. The letter describes a visit to the area around Baia, Pozzuoli, and Cuma,⁵ situated on the west coast of the Gulf of Naples and connected with Virgil, although Shelley does not seem to have "passed through" the Sibyl's cave famous in Virgil's *Aeneid*, as he says in this letter.⁶

In the same letter, Shelley writes that he mounted Mt. Vesuvius located to the east of the Gulf of Naples and that he was deeply impressed to observe the actual flow of lava there.

At the time that Shelley was visiting many places in Italy, the mecca of the grand tour was shifting from the so-called Campi Phlegraei at the west of the Gulf of Naples to its opposite eastern part, thanks to the excavation

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of such ancient cities as Pompeii and Herculaneum that were being exhumed one after another from beneath the ashes of Mt. Vesuvius, just as they had been described in the classic texts. Shelley's letter shows that as a grand tourist he visited both meccas, west and east.

(3) Sir William Hamilton

In the latter half of the eighteenth century, Mt. Vesuvius had become very active once again, and lava was gushing from it in the winter of 1818 while Shelley was staying in Naples.

An Englishman, who has been called "the Founder of Volcanology," had minutely observed this renewed activity of Mt. Vesuvius, his name Sir William Hamilton. Originally he had been a diplomat, and at the outset no scientist, when in 1764 he started for his new post as an ambassador extraordinary and plenipotentiary to the Kingdom of the Two Sicilies under the House of Bourbon in Naples; he was to stay there for another 36 years, although there is no record that he was renowned for his diplomatic skills. But Shelley owned a *Life of Emma*,⁷ Hamilton's second wife, who was at that time very famous for her adultery with Lord Nelson.

Mt. Vesuvius was active during Hamilton's stay, and he climbed it many times, observed its activities, kept scrupulous records of them, studied the nature of the soil and strata around the mountain, kept minute records of the meteorites and lightning bolts that accompanied its eruptions, and was to publish his reports in the form of letters in the *Philosophical Transactions* of the Royal Society many times. Between 1766 and 1780 these papers were sometimes illustrated with black and white drawings, and in 1776 they were published in Naples in book form as *I Campi Phlegraei*.

The book contained so many beautiful coloured drawings by an Italian

artist called Pietro Fabris that it was very expensive, but it was translated into many languages, became a best-seller, and went through several editions. Its drawings include a map of Campi Phlegraei, the volcanic forms and their eruptions in that area, the strata, crater lakes, lava, minerals, meteorites, and lightnings, and they are all coloured.

It is also noteworthy that the *Philosophical Transactions* at that time published several papers by Dr. J. Lind, Shelley's science teacher at Eton, as well as papers by such scientists as Cavallo and Herschell which Shelley is believed to have read. It is already known, according to his biography, that Dr. Lind was so good as to invite Shelley to his house near Windsor and initiate him in scientific study.

It is therefore quite probable that Shelley had already read the *Philosophical Transactions* during his Eton days while under the supervision of Dr. Lind. Since we may therefore suppose that Shelley read through the papers of Dr. Lind, Cavallo, and Herschell in the *Philosophical Transactions* one after another, why should he not have read those of Sir William Hamilton also? It seems almost certain that he must have done.

(4) The Fifth Letter in *I Campi Phlegraei*

Hamilton's letter, the so-called Fifth Letter⁸ of his scientific reports to the Royal Society, dated October 16th, 1770, consists mainly of a description of the eruptive activity of a volcano Mt. Vesuvius and the nature of the soil around it, and a report of the activity of a new volcano called Monte Nuovo on the west coast of the Gulf of Naples.

Included in the Fifth Letter is a piece entitled *Dell'Incendio di Pozzuolo* (1538) by an Italian, Marco Antonio, translated into English by Hamilton, which, along with a commentary entitled *Ragionamento del Terremoto del*

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Nuovo Monte, by Pietro Giacomo di Toledo, can clarify the background of an important image in the 'Ode to the West Wind.'

Shelley's poetry still suffers from the lack of fixed interpretation and of notes to each of his poems, and the 'Ode to the West Wind' is a good example. Among other issues, what do the four colours of the dead leaves, "black, yellow, pale, and hectic red" mean in its first stanza? This old question does not really seem to have yet been solved.

According to G. M. Matthews,

...the four colours are not only actually found in dead leaves, but are those traditionally representing the four races of man — Mongoloid, Negroid, Caucasian, and American Indian.⁹

Although this does not seem to be relevant when attempting to interpret the poem as a whole, no new theory about these colours has since then been proposed. And, strictly speaking, no "black leaves" exist in nature, whether dead or alive. So "the dead leaves" in this 'Ode' are metaphorical.

According to Shelley's note,

This poem was conceived and chiefly written in a wood that skirts the Arno, near Florence, and on a day when that tempestuous wind, whose temperature is at once mild and animating, was collecting the vapours which pour down the autumnal rains. They began, as I foresaw, at sunset with a violent tempest of hail and rain, attended by that magnificent thunder and lightning peculiar to the Cisalpine regions. The phenomenon alluded to at the conclusion of the third stanza is well known to naturalists....¹⁰

So it has usually been pointed out that what we have here is an image of “various cycles of death and regeneration — vegetation, human, and divine.”¹¹

But if this poem was really composed near Florence, why in it does Shelley refer to a real place near Naples named “Baiae”?

Can we trust Shelley’s note?

Yet if he was describing the west wind itself, how can it be explained that such a storm would never produce the “black rain and fire” which “will burst,” as he does in the second stanza? Normally, no ordinary storm produces “black rain” or “fire”, unless a volcano vomits black smoke, ashes, mud, or fire into the air.

This paper, therefore, would like to present a purely new theory, using the methods of New Historicism, that the four colours show, from a volcanological point of view, the colours of “volcanic ejecta,” and that this idea will be the basic key to the interpretation of the “Ode” as a whole.

First, it is necessary to review the following explanation of the birth of Monte Nuovo, a new volcano near Baia, written by Pietro Giacomo di Toledo and reported in the Fifth Letter of Hamilton.

It is now two years that this province of Campagna has been afflicted with earthquakes, the country about Puzzoli much more so than any other parts; but the 27th and the 28th of the month of September last, the earthquakes did not cease day or night in the abovementioned City of Puzzoli; that plain which lies between the lake of Averno, the Monte Barbaro and the sea, was raised a little, and many cracks were made in it, from some of which issued water; and at the same time the sea, which was very near the plain, dried up about two hundred paces, so that the fish were left on the sand, a prey to the inhabitants of Puzzoli.

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At last, on the 29th of the said month, about two hours in the night, the earth opened near the lake, and discovered a horrid mouth, from which were vomited furiously, smoak, fire, stones, and mud composed of ashes; making at the time of its opening a noise like very loud thunder: the fire that issued from this mouth, went towards the walls of the unfortunate City; the smoak was partly black and partly white; the black was darker than darkness itself, and the white was like the white cotton: these smoaks rising in the air, seemed as if they would touch the vault of heaven; the stones that followed were, by the devouring flame, converted to pumice, the size of which (of some I say) were much larger than an ox.¹²

Here he first describes that when in 1538 Monte Nuovo suddenly rose up from the flat plain near Baia and grew into a new and rare volcano there were "earthquakes" and that the sea "dried up." He then reports the colours and form of the smoke at its eruption, the kinds and size of the stones, and the flame or the column of flame. The question is the colours of the smoke, stones, and flame. He reports that the smoke was "black" and "white", and we know that pumice stone is "grey," namely "pale," while flames are usually "red" and "yellow."

These colours correspond to the four colours of the dead leaves, "black, yellow, pale, and hectic red" in the first stanza of Shelley's 'Ode to the West Wind' and can be found in the minerals as shown in the coloured illustrations in the notes.¹³

Next, another word connected with volcanology, "pumice," occurs in the third stanza of the 'Ode to the West Wind.' We, today have some knowledge that volcanic eruptions produce pumice stone, so we are apt to miss this volcanological image, but it is necessary to find out what people

knew of this at the end of the eighteenth century, when Shelley was a student at Eton and Oxford.

In the latter half of the eighteenth century, when Hamilton, the Founder of Volcanology, started to investigate volcanoes in Italy, the word "volcanology" did not itself yet exist, and such words as "natural history" and "geology" were special terminology known only to a few progressive intellectual people at that time: to say nothing of the word "pumice."

Shelley used the newest technical term "pumice," and he inserted a real place-name "Baiae's bay" in the third stanza of the 'Ode.' What on earth does it mean, or what can Shelley have meant by it?

As we have seen, 'Baiae' (now Baia) is a port located west of Puzzoli (now Pozzuoli), and at the birth of the volcano Monte Nuovo the sea round about it "dried up." And it is Hamilton who researched the strata and geology around the volcanoes in Campania and the area called Campi Phlegraei and for over 30 years reported on them to the Royal Society.

The third stanza contains a passage where the sea "cleaves into chasms." As the report above shows, the eruption of this volcano caused earthquakes around Baia near the sea shore. If earthquakes occur near the sea shore, tidal waves may follow, and the ocean floor can be revealed.

In the following passage, Shelley describes the ancient ruins "trembling" under the sea, caused by the real "earthquakes" that occurred when a new volcano Monte Nuovo was born near "Baia," September 27th, 1538, an eruption that really took place in "Autumn," and if there had been no eruptions on that day "the West Wind" should have been blowing everywhere. Shelley writes as follows:

The blue Mediterranean, where he lay,
Lulled by the coil of his christalline streams,

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Beside a pumice isle in Baiæ's bay,
And saw in sleep old palaces and towers
Quivering within the wave's intenser day, (ll.30-34)

It is clear that Shelley had read Hamilton's *I Campi Phlegræi*, and has sprinkled the 'Ode' with the newest scientific knowledge regarding volcanology, seismology, and geology, which only a limited number of progressive intellectuals could at that time have known about.

Finally, we should examine the direction of the flowing smoke that rose from Monte Nuovo. As the quotation above reveals, when Monte Nuovo arose between Baia in the west and Pozzuoli in the east, the smoke streamed in the direction of the City of Pozzuoli. This is really "the West Wind," as it streamed "from the west to the east."

Marco Antonio also recorded the direction of the wind. To quote the passage translated by Hamilton,

...this place has changed its form and face in such a manner as not to be known again: a thing almost incredible to those who have not seen it, that in so short a time so considerable a mountain could have been formed. On its summit there is a mouth in the form of a cup, which may be a quarter of a mile in circumference, though some say it is as large as our market-place at Naples, from which there issues a constant smoak; and though I have seen it only at a distance, it appears very great. The Sunday following, which was the 6th of October, many people going to see this phenomenon, and some having ascended half the mountain, others more, about 22 o'clock there happened so sudden and horrid an eruption, with so great a smoak, that many of these people were stifled, some of which could never be found. I have been

told, that the number of the dead or lost amounted to twenty-four. From that time to this, nothing remarkable happened; it seems as if the eruption returned periodically, like the ague or gout. I believe henceforward it will not have such force, though the eruption of the Sunday was accompanied with showers of ashes and water which fell at Naples, and were seen to extend as far as the mountain of Somma, called Vesuvius by the Ancients; and as I have often remarked the clouds of smoak proceeding from the eruption, moved in a direct line towards that mountain, as if these places had a correspondence and connection one with the other. In the night, many beams and columns of fire were seen to proceed from this eruption, and some like flashes of lightning.¹⁴

Marco Antonio also reports that the smoke then rose from Monte Nuovo in the west, brought ashes to the city of Naples in the east, and drifted towards Mt. Vesuvius further to the east. Such a drift from the west to the east indicates that it was indeed "the West Wind."

What is more, Antonio reports that these volcanoes looked as if there had been 'a correspondence and connection' between Mt. Vesuvius which was called "Jupiter-Vesuvius" in ancient times, and Monte Nuovo (new mountain) that was born in the sixteenth century. To quote the paragraph concerning to "Jupiter-Vesuvius", Elio Abatino reports as follows:

Prehistoric artifacts and animal bones found buried under the volcano's pyroclastic material indicate that this area was populated from early times.

Fear of these natural phenomena, the origin and cause of which they could not explain, led early inhabitants to worship Jupiter-Vesuvius, and they even dedicated a temple to this divinity; a Campania stone

tablet described by the archeologist Mommsen bears the inscription "Jovi Vesuvio Sacrum."¹⁵

According to the description by Marco Antoio above, it seems as if the new mountain were a young power that confronts and fights against an old power. The young one is Prometheus, and the old one, of course, is Jupiter. This suggests that the 'Ode to the West Wind' may have been meant as a "prelude" to *Prometheus Unbound*, which was published together with the 'Ode' in 1820.

(5) Conclusion

There can be no question that Shelley's 'Ode to the West Wind' is studded with what was then the newest "volcanological knowledge," based on the report on the eruption of a new volcano called Monte Nuovo near Naples, as it appears in the Fifth Letter of *I Campi Phlegraei* published by Sir William Hamilton, the Founder of Volcanology.

Hamilton collected his essays formerly published in the *Philosophical Transactions* of the Royal Society in England, and subsequently published them in book form. What is important here is that Dr. Lind, Shelley's teacher at Eton, had by then also published several essays in the same *Transactions*, which also included essays by such scientists as Cavallo and Herschell which Shelley is said to have read at that time.

It will not be so unreasonable to assume that Shelley should have read through all these essays written by these scientists including Hamilton within a few years of each other, since, according to the biographical study of Shelley's school days, he was enthusiastic about everything scientific to the bitter end, and acquired new instruments and constantly repeated

scientific experiments, so that various instruments lay scattered about his room which looked like a laboratory, things burning everywhere and stinking.

Because Shelley had a wide range of interests, not only in literature and philosophy but also in the newest science of his time, as the list of his Library shows very well, his poetry, including the 'Ode to the West Wind,' needs to be examined, line by line, according to the methods of New Historicism. If we ignore his extra-poetic interests, a plausibly false interpretation will like a tyrant survive and forever prevent the birth of a true interpretation of his poetry.

For lack of space, the rest of this study must be postponed until a later occasion.¹⁶

This paper is based on 'Shelley and Volcanological Imagery,' *Essays in English Romanticism* (Japan Association of English Romanticism, 2002), vol. 25, pp. 35-44.

Notes

1. Richard Holmes. *Shelley the Pursuit*. Penguin Books, 1987, pp. 16-17, 24-26; Edmund Blunden. *Shelley: A Life Story*. London, 1946, pp. 36, 44-45;

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- Thomas Jefferson Hogg. *The Life of P. B. Shelley*. London, 1858, vol. 1, pp. 25-47.
2. G. M. Matthews. 'A Volcano's Voice in Shelley,' *Shelley: Modern Judgments*, ed. by R. B. Woodings. Macmillan, 1957, pp. 162-95.
 3. Holmes, *op. cit.*, p. 127, notes.
 4. Abbé Augustin Barruel. *Memoirs Illustrating the History of Jacobinism*. London, 1797, vol. IV, p. 3.
 5. Cf. Illustration 1.
 6. F. L. Jones (ed.). *The Letters of Percy Bysshe Shelley*. Oxford at the Clarendon Press, 1964, pp. 60-63. As for the Cave called "Grotta della Sibilla," located on the bank of "Lago D'Averno," which Shelley wrote that he had "passed through," in his letter to T. L. Peacock, Dr. M. Pagano, an Italian archaeologist and a friend of mine, certified in his letter, dated August 31, 2001, as follows:

La cosiddetta grotta della Sibilla, con ingresso dal lago di Averno, percorribile per lungo tratto, aveva lo sbocco verso il lago Lucrino chiuso già dall'età romana per frane e accumulo di terra. Solo intorno al 1920 è stato aperto un lucernaio da questo lato. Pertanto, nel 1818 non si poteva uscire sul versante di Lucrino.

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Namely, it is clear that it was absolutely impossible for Shelley to land

at around Baia, to enter the entrance of the Grotta della Sibilla beside the lake of Lucrino, and to “pass through” to the exit beside the lake of Averno in 1818. So Shelley did not write the truth in this letter. As for the details, cf. Y. Cato. ‘Shelley and Campi Phlegraei,’ *Essays in English Romantics*, vol. 25 (Tokyo, 2001), pp. 29-38.

7. ‘The Shelley’s Reading List’ in *The Journals of Mary Shelley*. Ed. by P. R. Feldman and D. Scott-Kilvert. London: The Johns Hopkins Univ. Press, 1995, p. 651; *Memoirs of Lady Hamilton; With Illustrative Anecdotes of Many of Her Most Particular Friends*. London, 1815. 2nd edition. As for the reference to Sir William Hamilton and *I Campi Phlegraei*, cf. pp. 65-68.
8. Sir William Hamilton. *I Campi Phlegraei: Observations on the Volcanoes of the Two Sicilies, As They Have Been Communicated to the Royal Society of London*. Naples, 1776. As for the history of geology and the details of the works of Hamilton, cf. Y. Cato. ‘Sir William Hamilton: an Encounter of the Classics and Science,’ *Studies in the Eighteenth-Century English Literature*. Johnson Society of Japan, (Tokyo, 2002), vol. 2, pp. 363-81.
9. *Shelley’s Poetry and Prose: Authoritative Criticism*. Selected and edited by Donald H. Reiman and Sharon B. Powers. A Norton Critical Edition. London: W. W. Norton and Company, 1977, p. 221.
10. *Shelley: Complete Poetical Works*. Ed. by Thomas Hutchinson. Corrected by G. M. Matthews. Oxford Univ. Press, 1971, p. 577.
11. *The Norton Anthology of English Literature*, Ed. by M. H. Abrams and Stephen Greenblatt. Seventh edition. London: W. W. Norton and Company, 1962, vol. 2, p. 730.
12. Hamilton, *op. cit.*, pp. 75-76.
13. Cf. Illustrations 2, 3, 4.

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14. Hamilton, *op. cit.*, pp. 73-74.
15. Elio Abatino. *Vesuvio: A Volcano and Its History*. Naples: Carcavallo Editore, p. 9. As for the tablet, cf. the catalogue entitled *Corpus Inscriptionvm Latinarvm*. Editit Theodorvs Mommsen. Pars Prior. Vol. X, n. 3806, from Capua, in the Biblioteca degli Scavi di Pompei.
16. Cf. Y. Cato. 'Why Maenad?: A New Interpretation of the "Ode to the West Wind"' read at the 76th General Meeting of the English Literary Society of Japan, at Osaka University, May 23, 2004.