OPTICAL INSTRUMENTS AND “COMPOUND VISION” IN EMILY DICKINSON’S POETRY

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Although her years as a poet were secluded, Emily Dickinson’s science classes and scientific textbooks at Mount Holyoke Seminary thrust her into the main stream of the intellectual temper of her day. In view of the conflicts the new discoveries must necessarily have imposed on her religious cast of mind, it may be rewarding to examine her poetry for scientific terminology and metaphorical and direct incorporation of scientific lore.

Rebecca Patterson, who has studied the imagery in Emily Dickinson’s poetry, says that “multiplication of her scientific terms and certain peculiarities in her use of them are evidence that science itself held a strong fascination for her,” and, after pointing out and sorting the scientific terms, she concludes that Emily Dickinson’s “chief poetic concern with science was to pillage its vocabulary.” However, I do not think Dickinson’s reaction to science and technology was so superficial and simple. As the creation of a poet who lived all her life in New England in the 19th century, her poetry gives evidence that her reaction was peculiarly complex. Emily Dickinson did not only make use of scientific terms as Patterson says, but she also evolved her own world of poetry by adapting scientific concepts and knowledge to her inner world. In this paper I will focus only on her reaction to the optical instruments which developed radically.

* A part of this paper was used in my oral presentation on “Science and Technology in Emily Dickinson’s Poetry” in the panel discussion on “Short Poems and Large Subjects” at the International Emily Dickinson Centennial Conference at the University of Massachusetts on April 29, 1986.

1 Rebecca Patterson, Emily Dickinson’s Imagery (Amherst, Mass.: The University of Massachusetts Press, 1979), p. 95.

2 Ibid., p. 113.

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in the 19th century, and will examine their influence upon her view as seen in her poetry.¹

Among the newly developed instruments in which Emily Dickinson was interested were the telescope, the microscope, and the camera. These might have been of special interest to her because of her poor eyesight and her consequent obsession with sight.² Especially, she seems to have been interested in these inventions for their function of making “visible” the things which are usually invisible to our naked eyes.

In the following poem Emily Dickinson deals with “Microscopes”:

“Faith” is a fine invention
When Gentlemen can see—
But Microscopes are prudent
In an Emergency. (185, c. 1860)³

Through “Faith” we believe in or understand things invisible without any evidence. In other poems, she says, “What I see not, I better see— / Through Faith—” (939) and “Faith—is the Pierless Bridge / Supporting what We see / Unto the Scene that We do not — / Too slender for the eye” (915). Even a fact which has been proved by astronomical studies such as “a Revolution” can exist only through “Faith” because we cannot see it with our eyes (972).

Therefore, faith could be called “a fine invention.” However, if we cannot see through “Faith” “In an Emergency,” we will have the second choice of “Microscopes” instead of the ideal choice of “Faith.” “Microscopes” here is a metaphor used to show a way of understanding things invisible by enlarging and examining their constituent elements. The metaphor compares understanding abstract things to seeing by a lens things invisible to the unaided eye.

¹ Christine Avery (“Science, Technology, and Emily Dickinson,” Bulletin of the British Association for American Studies n.s. 9 [Dec. 1964], pp. 47–55) examines some of Emily Dickinson’s explicit anti-science poems.


³ Poem 185, The Poems of Emily Dickinson, ed. Thomas Johnson (Cambridge, Mass.: Harvard University Press, 1955). In this paper the numbers of the poems refer to this edition.
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Therefore, the use of "Microscopes" is "prudent" or worldly wise.¹

From another point of view, we can understand "Faith" and "Microscopes" as being impartially contrasted and compared here both as the means of seeing something, the word "see" calling for special attention by being underlined in the manuscript: "Faith" of seeing and grasping abstract things or invisible existences such as God with our inner eye; and "Microscopes" of seeing tangible things which are very small and usually invisible to our eyes. Both of them are useful as an aid to man's natural eyesight.

Then, because of its ambiguous structure we can also read this poem as follows: if we could easily see God and His will by "Faith" alone, faith would be reduced to just "a fine invention" like "Microscopes." "Faith" is valuable because it is in itself a thing hoped for. On the other hand, microscopes are useful in the practical realities of life ("In an Emergency"). Thus the poet appreciates both the applied science ("Microscopes") and religion ("Faith"). Dickinson must have wanted to say scientific devices are useful for the short haul ("In an Emergency") in our daily life, while religion is important for our inner life in the long run.

In poem 974, we can see Emily Dickinson was also interested in photography:

The Soul's distinct connection
With immortality
Is best disclosed by Danger
Or quick Calamity—

As Lightning on a Landscape
Exhibits Sheets of Place—
Not yet suspected—but for Flash—
And Click—and Suddenness. (974, c. 1864)

The poet says that she could have a better glimpse of "immortality" in a frightening situation. In the first stanza she states the abstract idea while in the second she demonstrates it with the concrete example

¹ Charles Anderson (Emily Dickinson's Poetry: Stairway of Surprise [New York: Holt, Rinehart and Winston, 1960], p. 34) writes that the word "prudent" "means worldly wise, and is associated in American history with Benjamin Franklin, the great advocate of national unity. But it also carried with it the medieval religious meaning of prudens, endowed with the capacity of perceiving divine truth."
of "Lightning." She often uses this method, as in the previous poem 185, in which the abstraction "Faith" comes first, while in the second half she uses the analogy of "Microscopes."

The landscape illuminated by the lightning for one moment between long dark moments looks different from what we usually see. What we did not notice in the sunlight can be glimpsed in that moment. "Sheets of Place" implies each scene of the landscape at each moment of such lightning. Without the "Flash," "Click," and "Suddenness," we could not see or even "suspect" such a scene.

In the manuscript the word "Exhibits" in line 6 has the poet's suggested alternative, "Developes" [sic], which is a technical term in photography.1 "Sheets of Place" suggests the sheets of photographs taken of a "Place." The words "Flash" and "Click" also suggest the moment of taking a photograph, "Click" being more like the noise made by a camera's shutter than the sound of thunder. Preserving the figure of a moment on a sensitized sheet for a long time or forever can be called a kind of "connection" with "immortality." After Louis Daguerre (1789–1851) invented the "daguerreotype" in 1839, photography on a silvered copper plate developed rapidly. In 1851, William Henry Fox Talbot (1800–1877) began to use electric sparks for photo-taking, and in 1861, flash photographs by burning magnesium ribbon were taken for the first time. The people who were being photographed must have been startled, if not frightened, by the flash. Emily Dickinson seems to have observed people's excitement and extreme tension when being photographed. Her "Flash" and "quick Calamity" are common to both the photographer's and the lightning's illuminating moment. Thus in this poem the poet fuses two metaphors: lightning and photo-taking in order to show a kind of revelation.2

1 The first example of this use is in Athenaeum (1845) according to OED.
2 On the other hand, Emily Dickinson has an ironical observation of the "immortality" conferred by photography in a letter to Thomas Higginson, who asked for her photographs:

I had no portrait, now, but am small, like the Wren. . . .

It often alarms Father—He says Death might occur, and he has Molds of all the rest—but has no Mold of me, but I noticed the Quick wore off those things, in a few days, and forestall the dishonor— (L-268, July 1862)

She uses the word "Molds" for portraits here. A photo is just a "cast" or a "form" without a soul in it.
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Seeing that words “telescope(s)” and “telescopic” are mentioned in some poems,¹ Emily Dickinson seems to have enjoyed looking through Amherst College’s telescope.² She might even have seen Saturn’s rings through it:

What Twigs We held by—
Oh the View
When Life’s swift River striven through
We pause before a further plunge
To take Momentum—
As the Fringe

Upon a former Garment shows
The Garment cast,
Our Props disclose
So scant, so eminently small
Of Might to help, so pitiful
To sink, if We had labored, fond
The diligence were not more blind

How scant, by everlasting Light
The Discs that satisfied Our Sight—
How dimmer than a Saturn’s Bar
The Things esteemed, for Things that are! (1086, c. 1866)

While she looked through the telescope and had a faint glimpse of “Saturn,” she must have realized that our “View” or sight was very unreliable (“What Twigs We held by”). The speaker in this poem, knowing that his view in this life has been unreliable, hesitates and tries to gather “Momentum” before plunging into the next life (“before a further plunge”). The “former Garment” is now worn out and useless and he has nothing to support and help him at such a critical moment.

The “Discs” in the third stanza refers to stars, including the sun

¹ See poems 413, 433, and 443.
² According to Patterson (p. 96), “there may have been visitors’ night at the Amherst College observatory.” It was founded in 1847 and “equipped with a small telescope, which was replaced by a much larger and finer instrument in late 1855.”
and the moon, as "disks." Compared with the number of the stars which exist in the universe, the stars that we can see with our naked eyes ("The Discs that satisfied Our Sight—") are "scant." And even with a telescope, we cannot see all the stars. By the end of the 19th century the photographic plate had also been developed to the point that it had many advantages over the eye for astronomical observation. The first of these was greater sensibility for the study of faint objects such as nebulae or galaxies. The photographic plate records fainter and fainter objects, the longer it is exposed, while the naked eye sees nothing additional after the first glance. Our sight is unsatisfactory, compared with the invention.

"Saturn's Bar" refers to the appearance of Saturn's ring. In her textbook of astronomy at Mount Holyoke Female Seminary Compendium of Astronomy (1848), there is the following explanation of Saturn's ring:

Saturn's ring, when viewed with telescopes of a high power, is found to consist of two concentric rings, separated from each other by a dark space. Although this division of the rings appears to us, on account of our immense distance, as only a fine line, yet it is in reality an interval of not less than about 1800 miles. . . .

Thus, what we see of Saturn's ring and its real shape are different.

Or perhaps by "a Saturn's Bar" in singular form, the poet refers to the discovery of a third, innermost ring, the "crepe ring," which is "a dusky, semitransparent, continuous ring in both ansae and across the disk." Before this discovery at Harvard College Observatory in 1850, it had been taken to be an atmospheric belt by Herschel and other earlier astronomers. The "Things esteemed"

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1 Both the words "disc" and "disk" derive from the same Latin "discus." In Webster's first edition of An American Dictionary of English Language (1828), which Emily Dickinson used, "disc" is defined as "the face or breath of the sun or moon; also the width of the aperture of a telescope glass"; and "disk" as (1) "the body and face of the sun, moon, or a planet, as it appears to us on the earth; or the body and face of the earth, as it appears to a spectator in the moon."


4 And then, in 1857 J. Clerk Maxwell proved mathematically that the rings must consist of myriads of discrete particles, each orbiting Saturn in accordance with the law of gravitation.
are not really what they are ("Things that are").

Thus, with scientific knowledge and her experience of looking through a telescope, the poet all the more realized the limit of human capability, and also realized the impossibility of seeing the other world after death by spiritual light ("by everlasting Light"), before we enter it ("Life's swift River striven through"). She thus develops her reflection on the "View" and says that our understanding of things is not enough for reality: "How dimmer than a Saturn's Bar / The Things esteemed, for Things that are!"

In poem 949, Emily Dickinson tries to throw a ray of light on the invisible world:

Under the Light, yet under,
Under the Grass and the Dirt,
Under the Beetle's Cellar
Under the Clover's Root,

Further than Arm could stretch
Were it Giant long,
Further than Sunshine could
Were the Day Year long,

Over the Light, yet over,
Over the Arc of the Bird—
Over the Comet's chimney—
Over the Cubit's Head,

Further than Guess can gallop
Further than Riddle ride—
Oh for a Disc to the Distance
Between Ourselves and the Dead! (949, c. 1864)

In this poem Dickinson tries to express the distance between the living and the dead, by contrasting the astronomical view with that of the nearby familiar images of "the Grass and the Dirt." Here is another phase of distance, that is, one between the dead body under the ground where the light cannot reach and the soul in heaven "Over the Light." It shows objectively the distance between mortality and immortality with the light between.
“The new astronomical concept of light-years”¹ and of “Comet” are also used to express distance. The poet must have seen at least one of these comets: the Great Comet of 1843,² Biela’s Comet in the winter of 1845–46, and the Great Comet of 1861. She knew about the 76-year cycle of Halley’s Comet³ and that most comets have orbital periods of thousands of years around the sun.⁴ The distance is vast not only in space but also in time. Although science could calculate light-years and observe comet tails through a telescope, the world of the immortals remained beyond the reach of the telescope. Neither experiment nor reasoning (“Guess” and “Riddle”) could measure or reduce that distance.

At the end of the poem, however, the poet declares her desire: “Oh for a Disc to the Distance / Between Ourselves and the Dead!” She seems to believe that only a “Disc” can “ride” “the Distance.” The term “Disc” is very ambiguous, and could be interpreted in various ways. First, it may refer to the lens of a telescope,⁵ which can reduce the distance, throwing light on the stars far away, and can show us the “Discs” of stars that are usually invisible because they are far away. She wishes that such an efficient disc of lens could show her the other world. Then, the “Discs” in the poem 1886 might be also taken as such a device for seeing invisible things as the lenses of a telescope, and the lines can be interpreted as: “there are many things such as stars which we cannot see even through a telescope.” This interpretation is not contradictory with the meaning of the poem.⁶ Secondly, the “Disc,” which is described as a transportation to go back and forth in such a huge distance in both time and space as between mortality and immortality, seems like a flying

¹ Anderson, pp. 233–34.
² This comet could “originally be seen even in broad daylight,” “in the last days of February,” and “continue to dominate the sky during the whole month of March, presenting a magnificent spectacle every clear evening.... The Astronomers enjoyed a heyday of popularity, and their explanations were widely read,” according to Dirk J. Struik in his Yankee Science in the Making (New York: Collier Books, 1962, p. 410).
⁴ Ibid., pp. 218–34.
⁵ The second definition of the word “disc” in Webster I (1828) is “the width of the aperture of a telescope glass.” See note 1, p. 232.
⁶ See pp. 231–33.
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...disk. Or it also looks like an orbit of a planet or a comet, which she could ride in the space very quickly.

Thirdly, taking also the first two possible interpretations into consideration, the "Disc" might be taken as a certain imaginary strategy for seeing things more accurately, by throwing light on an object from far distant places at the same time. This might be called a kind of dual vision, watching an object from different points of view at the same time, for example, from a vast distance and from a short distance ("Over the Light" and "Under the Light"). In order to have this vision, the poet must stand at both the separated points in time and space at the same time. Therefore, she needs such a miraculous transportation "Disc" like a flying disk. A "Disc" is an imaginary instrument or transportation she wished for in order to see something from different places at the same time. This interpretation also can be applied to the "Discs" in poem 1086: it is very difficult to have or get such a device as the "Disc" that could "satisfy Our Sight—"

In the following poem the poet calls such a double vision "Compound Vision":

'Tis Compound Vision—
Light—enabling Light—
The Finite—furnished
With the Infinite—
Convex—and Concave Witness—
Back—toward Time—
And forward—
Toward the God of Him— (906, c. 1864)

Everything must stand the test of time, through which we could clearly see and justly "Estimate" an object. We could even see
"what We saw not" before. If we could stand at a point between life and death "through an Open Tomb," we could take a more objective view of the world, as a "Dying" person looks back over his life and expects the next life in a moment, and as a person on "a Height" can have good views of both the road behind, where he has climbed, ("Back"), and the road ahead, where he will walk down, ("forward"). At the boundary between mortality and immortality we could have both the secular ("the Finite") and celestial ("the Infinite") points of view with both the ordinary "Light" and the "enabling Light" respectively. Here, this is called "Compound Vision" or "Convex—and Concave Witness." The term "Compound" must have derived from a "compound microscope," in which "at least two convex lenses" are used; the "Convex—and Concave Witness" derives from a reflecting telescope, in which a "Convex" lens and a "Concave" mirror are used. The multiple points of view are here compared to the lenses of a microscope and a telescope. Through the lenses of the ages we could have more accurate view as the "Lamps" of poetry are "Disseminating their / Circumference" through "Each Age" like "a Lens" (883).

The poet, at the point between "the Finite" world with "Time" and the "Infinite" world without it, tries to have the "Compound Vision," looking back over the past or the secular world ("toward Time"), and forward, toward the future or the celestial world ("Toward the God of Him—"). As the estimation of an existence is entrusted to "Time," the soul of a human being is committed to the care of God after death. However, she does not say just "God" but "the God of Him," that is the God of "The Dying." She does not make it clear whether He is also her own God or not. She neither denies nor confirms the existence of God. In this expression "the God of Him—" we can see her ambivalent attitude toward God.

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1 There is an explanation and an illustration of the compound microscope in one of her textbooks of astronomy at Mount Holyoke Seminary Compendium of Natural Philosophy (Denison Olmsted, New Haven: S. Babcock, 1846), pp. 339-40.

2 There are also explanations with illustrations of the reflecting telescope in her textbooks: Olmsted, Compendium of Astronomy, p. 55; and Compendium of Natural Philosophy, pp. 356-58.
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Emily Dickinson must have got a hint of this kind of dual vision from the textbook of astronomy at Mount Holyoke Seminary. First, in Compendium of Astronomy (1848), the "change of the appearances of the same comet at its different returns" is explained as partly the result of "the different positions of the earth with respect to them." Thus, she knew that in order to get an exact view of a thing we have to see it from different places and at different times. Secondly, the same textbook also explains that when we "look directly at 'the Pleiades' or 'Seven stars,' we cannot distinguish more than six stars, but by turning the eye sideways upon it, we discover that there are many more." It also explains:

Indirect vision is far more delicate than direct. Thus we can see the Zodiacal Light or a Comet's Tail, much more distinctly and better defined, if we fix one eye on a part of the heavens at some distance, and turn the other eye obliquely upon the object.

This "indirect vision" must be connected with her "Compound Vision." She learned to observe an object from different points of view at the same time, comparable to her dual attitude toward "Faith" and "Microscopes" in poem 185 or toward God in poem 906.

Therefore, what she observes "obliquely" with "Compound Vision" must be also expressed "indirectly" or "slantly," as she herself declares in a poem:

Tell all the Truth but tell it slant—
Success in Circuit lies
Too bright for our infirm Delight
The Truth's superb surprise

As Lightning to the Children eased
With explanation kind
The Truth must dazzle gradually
Or every man be blind— (1129, c. 1868)

1 Olmsted, Compendium of Astronomy, pp. 221-22.
2 Ibid., p. 247.
3 See pp. 228-29.
4 See p. 236.
This poem itself “lies” “in Circuit.” The poet, who was struggling to catch a glimpse of “The Truth,” ironically says that “The Truth” is “too bright” for our sight or mind, and that unless it is told “slant” or “gradually,” every one will “be blind” by its “superb surprise.” Here, expression and sight are fused. In other words, the two different processes, reasoning and sensation, are combined to describe the poet’s principle of dualism, of “observing” (seeing and/or expressing) things “slantly.”

Thus, Emily Dickinson was interested in the microscope, the camera, and the telescope, and was fascinated by the idea of seeing by looking through some device some things which were usually invisible. Furthermore, she learned to observe things “obliquely” from different or even opposite points of view at the same time. She seems to have observed an object with one eye opened, which is the scientific eye, and the other closed, which is the inner eye, just like when looking through an optical instrument such as a microscope or a telescope.

On the other hand, while Emily Dickinson enjoyed looking at something through a telescope or a microscope, she was conscious of being watched by other people’s “sagacious eyes” (66) and “gross eyes” (338). She was even afraid that somebody might look into her inner world, for the facial features reflect the inner world (“the inner Brand”), even if she does not want it to be seen (“Eyes were not meant to know”) (451). She also says:

I tie my Hat—I crease my Shawl—
Life’s little duties do—precisely—
As the very least
Were infinite—to me—

I put new Blossoms in the Glass—
And throw the old—away—
I push a petal from my Gown
That anchored there—I weigh
The Time ’twill be till six o’clock
I have so much to do—
And yet—Existence—some way back—
Stopped—struck—my ticking—through—
The speaker virtually says that every one has two worlds: the outer world with many "little duties" or "Errands"; and the inner world or the real "Existence" of oneself. And for her it is "stinging" to pretend ("simulate") to be "a completed Man / Or Woman," hiding one's reality ("what we are") from "Science," "Surgery," or "Too Telescopic Eyes," in the outer world. She believes that we must conceal our inner world or "Ourself" from the "Too Telescopic Eyes" of the outer world, for "their—sake." For we have "a Bomb" in "our Bosom," and if they saw it, they would be shocked by it ("'Twould start them"). The poet knew how dreadful our inner world is and wrote about it in some other poems, too.\(^1\) In this poem we can see that Dickinson's fear that the inner world would be looked into is surely connected with the development of science, particularly the telescope. In the modern world, where optical instruments had developed so much as to make

\(^1\) For examples, see poems 384, 642, 670, and 786.
usually invisible existences visible, she could not be easy with "a Bomb" within.

Even if we could escape from others' eyes, we could not get rid of the eyes in ourselves. The development of psychology must have been also a menace to her inner world. In a poem Emily Dickinson says that she cannot have "peace" unless she subjugates "Consciousness" (642). She also says that there can be "No Drug for Consciousness" (786). To her, "Consciousness" is a dreadful eye looking at "the Soul" in herself:

Of Consciousness, her awful Mate
The Soul cannot be rid—
As easy the secreting her
Behind the Eyes of God.

The Deepest hid is sighted first
And scant to Him the Crowd—
What triple Lenses burn upon
The Escapade from God— (894, c. 1864)

The "Consciousness" is here compared to the eyes of the omnipresent God. It is impossible for anybody to escape from "the Eyes of God." Even if one hides oneself, God will easily find him. In poem 413, the eyes of God are a "Telescope," with which God is always watching us:

If God could make a visit—
Or ever took a Nap—
So not to see us—but they say
Himself—a Telescope

Perennial beholds us—
Myself would run away
From Him—and Holy Ghost—and All—
But there's the "Judgement Day"! (413, sts. 3 & 4, c. 1862)

Even if we believe that we have escaped from others' eyes, what we have done in this world will be revealed before God on the "Judgement Day." Therefore, the "triple Lenses" of God in poem 894 are the convex or burning lenses of a telescope, with which God
finds and burns a sinful man ("What triple Lenses burn upon / The Escapade from God").

The "triple Lenses" might be also the lenses of a microscope, with which we can find a minute thing, for it also has convex lenses in itself. In *Compendium of Natural Philosophy* (1846), which Dickinson read at Mount Female Seminary, there are explanations and illustrations of the basic structures of a compound microscope\(^1\) and an astronomical telescope\(^2\) in those days. In both the compound microscope and the telescope, two convex lenses are used. Besides, in each of the illustrations, there is also the lens of an eye added. The observation of an object with a microscope or a telescope is completed by the lens of an eye. Therefore, the "triple Lenses" here must imply that of God's eye plus the two of an optical instrument such as a microscope or a telescope.\(^3\)

The "triple Lenses" also suggests the camera. In the same textbook *Compendium of Natural Philosophy* (1846), there is an illustration of a "camera obscura," which has a plane-convex lens and a plane mirror.\(^4\) Astronomers have used the device for projecting images of the eclipsed sun, the moon, and brighter stars. Especially Johann Kepler (1571–1630) greatly improved it for solar observation by introducing a concave lens at a suitable distance behind the convex

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\(^1\) The compound microscope "consists of at least two convex lenses, one of which, called the object-glass, is used to form an enlarged image of the object, and the other, called the eye-glass, is used to magnify the image still farther" (Olmsted, *Compendium of Natural Philosophy*, pp. 339–40).

\(^2\) The astronomical telescope in those days essentially consists of two glasses: the object-glass, which is "a convex lens to form an image of a distant object as a star, in its focus of parallel rays," and the eye-glass, which is "a microscope with which we view the image at a distance equal to its focus of parallel rays" (Olmsted, *Compendium of Natural Philosophy*, pp. 343–44).

\(^3\) A convex lens called "a field glass" is sometimes added to a compound microscope in order to improve the viewing field. In this case there are three lenses used in one instrument. In the case of the astronomical telescope, too, there is an explanation as follows: "By the addition of several more lenses, they may be made to appear erect, as will be shown in the description of the Day Glass, or Terrestrial Telescope" in *Compendium of Natural Philosophy* (p. 345). Then, the poet might have seen an instrument with three lenses. However, the basic structure of either the microscope or the telescope has only two convex lenses. Therefore, I interpret the "triple Lenses" here as implying the two lenses of an optical instrument and the eye of an observer.

\(^4\) Olmsted, *Compendium of Natural Philosophy*, p. 342.
lens to enlarge the projected image. Then in the 19th century the camera obscura became the photographic "camera" of Louis Daguerre and William Fox Talbot. The application of the daguerreotype to astronomy in 1840 made a remarkable step in astronomical observation in the 19th century. When the exposure is longer, the stars invisible to our naked eyes are also photographed on the photographic plate.

In this connection Emily Dickinson's use of "Consciousness" along with "Soul"1 is worthy of notice, because "Consciousness" is the scientifically interpreted inner world, while the word "Soul" has a religious implication. In this poem (894) she was afraid of consciousness as she was afraid of God. In another poem she says that it seems "Far safer" to meet an "External Ghost" at midnight than the "interior Confronting" with "Ourself" (670). She also says that she does not know a man who is so "bold" as to be able "Deliberately" to "face" "That awful stranger Consciousness" "in lonely Place," for "Consciousness" even denies "That mightiest Belief" (1323). However, "Soul," compared with the scientific "Consciousness," must be always "Attended" by "Consciousness" (822). Therefore, "Consciousness" is called in this poem "her (Soul's) awful Mate."

This ambivalent attitude toward the "Soul" and "Consciousness" is observed especially in the double comparison in this poem, that is, in her comparing "Consciousness" to God's eyes, and God's eyes to the "triple Lenses." She wonders if it is all right to forget God, while she is impressed by science and technology, represented by "Consciousness" and "triple Lenses," and is sometimes even uncertain of the existence of God as seen in poem 906.2 The last line "the Escapade from God" suggests not only her sin of infidelity to God, but also man's world-wide betrayal of God by blindly adoring science. Therefore, the poet ironically declares that those who have betrayed God and have believed in science may be punished by God through the scientific devices of "triple Lenses." In this poem we can see Emily Dickinson's ambivalent attitude toward science and technology, and toward religion, just as "Consciousness" and

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1 "Soul" and "Consciousness" are contrastingly examined in other poems, too. See poems 822 and 876.
2 See p. 236.
"Soul" are "Mate" although both of them are "awful" to each other. Science and technology and religion are fused here without any contradiction.

As we have seen, although her life seemed secluded at one view, Emily Dickinson was not only familiar with but also fascinated and influenced by the up-to-date science and scientific devices such as the microscope, the telescope, and the camera in her day. She did not, however, blindly trust them as so many people did; she was skeptical and almost afraid of their influence upon her inner world. Fascinated and fearful at the same time, she took a dual, ambivalent attitude toward them. And from the experience of using these optical instruments, with the knowledge of science, especially of astronomy, she learned a double or indirect vision, named "Compound Vision," of observing things by looking at an object from different points of view at the same time. She observed an object with one eye, open and scientific, and the other, closed and inner, as if she were looking through an optical instrument in order to find something usually invisible.

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