

KALEIDOSCOPIC VISION AND LITERARY
INVENTION IN AN “AGE OF THINGS”:
DAVID BREWSTER, *DON JUAN*, AND
“A LADY’S KALEIDOSCOPE”

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The kaleidoscope’s dynamic effects have long appealed to writers and artists, yet little is known about the history of this distinctively modern optical device. Invented in 1815 by Sir David Brewster, an influential and entrepreneurial advocate of science, the kaleidoscope caused a sensation throughout Europe and beyond.¹ Sadly, Brewster barely profited from his invention. Pirated and endlessly adapted, the kaleidoscope became a mass phenomenon before patent laws could protect the rights of its ambitious inventor. Accounts of early nineteenth-century London in the grips of Kalleidoscopism portray a society captivated by a new way of seeing the world, a way of seeing which was quickly translated into a novel and potent metaphor in the print culture that had emerged to cater to the preoccupations and predilections of a newly affluent middle class. To describe an event or phenomenon as kaleidoscopic evoked a sense of perpetual transformation, in contrast to the spectacular stasis and visual mastery suggested by contemporary popular sensations such as the panorama. The kaleidoscope immersed the observer in a visual field that never allowed the eye to rest, producing a visual effect that tested the limits of verisimilitude and reflected the existential flux of modern life in early nineteenth-century London.

Often the experience of looking through a kaleidoscope was described as a process of being opened up to a world of different cultural sensations, a variable experience, I would argue, that necessarily eludes or destabilizes the prescriptive techniques that Jonathan Crary has so polemically mapped on to the perpetually shifting field of nineteenth-century visual culture.² The kaleidoscope has always suggested interaction, a dialogue between hand and eye, inside and outside, as the observer turned the tube sending shards of colored glass and fields of light into endlessly novel and fleeting configurations, or in the construction of kaleidoscopes or kaleidoscopic slides out of everyday objects. This

playful synthesis of objects and effects is also at the core of the lasting appeal of the idea of kaleidoscopic vision. Kaleidoscopic metaphors oscillate, evoking either positive associations with a self-consciously cosmopolitan gaze open to diversity or equally suggestive negative associations with the infinite and alienating interchangeability of standardized market driven spectatorship. What remains consistent across this associative spectrum is the idea of a relentless exchange of images that never quite come to rest in time and space, especially in contrast to the picturesque contours of mass-produced prints, the photographic image, or the panorama.³ Brewster's choice of a name was clearly an inspired one, and yet he seems not to have realized the significance of his contribution to an emerging visual vernacular that found its way into the writing of the most famous poets of his day and that continues to haunt contemporary cultural aesthetics. It is this reception history that this article will track by moving back in time from recent theoretical engagements with the kaleidoscope to Brewster's own account of his invention and its contemporary cultural reception.

I. KALEIDOSCOPIIC RESONANCES

In his influential 1927 essay "The Mass Ornament," Siegfried Kracauer made a passing yet revealing analogy between ballet and the kaleidoscope.⁴ He did this to distinguish traditional dance forms (including ballet) and visual experiences, which still bore the traces of ritual meaning, from the mass ornamentation of the modern chorus line. According to Kracauer, the chorus line was a crude machine, unlike the kaleidoscopic configurations of the ballet, which were at that time being transformed into a high modernist art form by Sergei Diaghilev's *Ballets Russes*.⁵ Kracauer, however, was not the first to see the link between the kaleidoscope and the ballet. On 8 June 1818, a new ballet suggestively entitled "The Kaleidoscope, or Pay for Peeping!" was performed at the Surrey Theatre. Clearly intended to cash-in on the current sensation, the advertisement in the *European Magazine* made the link explicit: "Dr Brewster's optical invention, already so deservedly popular, has furnished a hint, which is turned to much advantage in this *petit danse*."⁶ These brief lines capture the associations both the instrument and its evocative name inspired. The choreography suggested by the name combines the seductive idea of variegated patterns of sensual effects with the intimate pleasures of peeping, a furtive private look that never completely grasps its object. A few decades later, Charles Baudelaire, in *The Painter of Modern Life*,

positively inflected this surrender to instability with a cosmopolitan hue, turning a fleeting inward look into an emancipatory outward one: “Thus the lover of universal life enters the crowds as though it were an immense reservoir of electrical energy. Or we might liken him to a mirror as vast as the crowd itself; or to a kaleidoscope gifted with consciousness, responding to each one of its movements and producing the multiplicity of life and the flickering grace of all the elements of life.”⁷ What captivated Baudelaire was the idea of a perceptual process that transcended the circumscription of a single body and mind. Again the kaleidoscopic metaphor captures a sense of a celebratory “multiplicity.” The cosmopolitan gaze of the “lover of universal life” is less interested in mastery than in the mutually constitutive play between the particular and the universal that is simultaneously inclusive and exclusive, thus conforming to what Amanda Anderson so succinctly describes as the “enabling but anomalous detachment” typical of the self-consciously cosmopolitan nineteenth-century intellectual.⁸ Baudelaire’s seminal lines have haunted modern cultural theory, potently mediated by Walter Benjamin’s dialectical reworking of *flanerie*.⁹ This, in turn, has contributed to the continuing abstraction of the kaleidoscope from its material history, as it circulates as both evocative citation and authenticating historical trace in countless essays on vision and modernity, just as the kaleidoscope itself continues to circulate in a parallel universe of child’s play and arts and crafts collectibles.¹⁰ As Martin Kemp has observed, the kaleidoscope has had a continuous history of manufacture from 1815 onwards, in contrast to the hand-held lenticular stereoscope, another of Brewster’s inventions that sold in the millions in the latter half of the nineteenth century.¹¹

The glancing references to the kaleidoscope’s magical effects in Kracauer, Benjamin, and Baudelaire echo one of the first literary references to the kaleidoscope in the second canto of Lord Byron’s *Don Juan*, a poem which, as Jerome Christensen argues, uncannily mirrored the age which transformed it into a bestseller: “an age of interchangeable, brilliantly transient phenomena,” much like the kaleidoscope itself.¹² Shipwrecked and brutalized to the point of cannibalizing their fellow shipmates, the only survivors of the ship carrying Don Juan on his first adventure awaken from a hellish stormy night to find a rainbow overhead:

Our shipwreck’d seamen thought it a good omen—
It is as well to think so, now and then;
’Twas an old custom of the Greek and Roman,
And may become of great advantage when

Folks are discouraged; and most surely no men
Had greater need to nerve themselves again
Than these, and so this rainbow look'd like hope—
Quite a celestial kaleidoscope.¹³

Casual as this reference may be, it demonstrates the infectious appeal of an emerging visual vernacular that was a by-product of what Christensen describes as the “economy of sensation” which fueled the nineteenth-century cultural marketplace.¹⁴ Read from this perspective, Byron’s wittily framed “celestial kaleidoscope” offered his readers, along with his shipwrecked hero, a familiar moment of release and delight in which the pleasures of associative play are encouraged. Like the previously cited examples, Byron aligns the kaleidoscope with a moment of potential transformation, a fleeting prophetic vision of hope and natural beauty that borders on the sublime. This destabilizes recent equations of kaleidoscopic vision with serial production and the standardizing of nineteenth-century visual experience in the work of Crary and, more recently, in Simon During’s suggestive study of magic, *Modern Enchantments*. In the latter, During argues that the kaleidoscope is an instrument of “rationalized society because its pictures bear no relation to the spectator’s actual location” and that “despite the appearance of infinite variation,” the significance of its effects are diminished by serial production.¹⁵ Crary also stresses abstraction and mass production in his reading of Brewster’s aspirations for his invention: “For David Brewster, the justification for making the kaleidoscope was productivity and efficiency. He saw it as a mechanical means for the reformation of art according to an industrial paradigm.”¹⁶ In many ways this was true; Brewster did promote the mechanical potential of his instrument, but he was equally concerned to stress its aesthetic and imaginative appeal. Tom Gunning, in contrast to the previous two accounts, draws our attention to the continuing value of the new technology, by tracing a more or less direct line between the kaleidoscope’s visual effects and the Lumieres’ flickering actualities.¹⁷ Gunning’s brief reference to the subsequent genealogy of Brewster’s invention thus acknowledges the seminal and durable appeal of the kaleidoscope’s visual effects while illuminating the self-reflexive immersion of early nineteenth-century observers in the pleasures of contingency created by the dynamic interplay between movement and light, hand and eye, things and words.

Gunning’s revaluation would have delighted Brewster, whose anxiety over his legacy pervades his first published account of his invention in 1819, which he then expanded upon in later editions, culminating

in the “greatly enlarged” and illustrated *The Kaleidoscope. Its history, theory and construction with its application to the fine and useful arts* (1858).¹⁸ For this reason, these editions provide a useful starting point for an analysis of the early reception of the kaleidoscope, what Percy Bysshe Shelley dubbed “Kalleidoscopism,” which seemed to take over early nineteenth-century Europe.¹⁹ In addition, these variant editions provide a rich context for three further literary engagements with the idea of the kaleidoscope that will be the culminating focus of this article. The first of these involves an exchange of gifts and words between the publisher John Murray and his increasingly troublesome client, Byron, in which the kaleidoscope is ultimately transformed from a material object into a novel literary metaphor in *Don Juan*. The second appears in Samuel Taylor Coleridge’s suggestive accounts of the elusive relationship between imagination, perception, and nature. The third is a far more explicit transformation of the kaleidoscope into a thing to think with in a poem written by the Scottish poet Anna Jane Vardill for *The European Magazine* simply entitled “On a Lady’s Kaleidoscope.”²⁰ Vardill, a relatively unknown poet and occasional satirist, made a name for herself deflating the grandiose claims of her male romantic contemporaries, a reputation which her poem’s witty insistence on the interdependency of literary and material culture playfully demonstrates.

II. AN AGE OF THINGS

In 1831 the *Metropolitan Magazine* announced that the nineteenth century was an age when writers ignored the “world of things” at their peril: “The great business of the modern author is to seize his opportunity. He knows that the world will neither await his leisure, nor suffer him to ‘bestow all his tediousness’ upon his readers. The age of things has arrived.”²¹ Intrinsic to this world of things was an idea of the crowd as that which consumed every new craze with a voracious appetite and paid little attention to the integrity of forms and sources. This notion haunts Brewster’s account of the mass popularity of his invention and, in turn, bears out Jon Klancher’s influential argument in *The Making of English Reading Audiences 1780–1832* that a fundamental shift was taking place at this time in patterns of cultural consumption, leading towards “a larger collective landscape of interpretive acts within which to situate the solitary reader.”²² Leaving aside the question of who actually participated in this “larger collective landscape” for a moment—a question to which I will return in

the context of Vardill's explicit gendering of the consumption of the kaleidoscope—Klancher's idea of reading as an evolving set of related, yet distinct, cultural practices is pivotal to this essay's emphasis on the symbiotic relationship between nineteenth-century literary descriptive techniques and visual technologies: a symbiosis succinctly distilled by Klancher in his reading of Shelley's *Defence of Poetry* as an exemplification of the ways in which writers in the early decades of the nineteenth century felt challenged to forge a new imaginative language capable of "apprehending the relations between things without becoming merely . . . collection[s] of 'things'" themselves.²³ Forged out of a productive tension between literary and material culture, this new literary language, as Christensen argues in the context of Byron and Wordsworth, takes the form of a poetics of "scattered intensities" characterized by competing assimilative and resistant responses to "the world of things": "For Byron, as for Wordsworth, the world in which the poet travels is a site of scattered intensities . . . The poem organises this body putting a face on it and making it into a book, thus capitalising on the attraction of those touching intensities."²⁴

According to Brewster's accounts, the kaleidoscope was intended to achieve just such an effect—to illuminate the relation between "scattered intensities." Initially intended as an instrumental demonstration of Brewster's celebrated experimentation with the polarization of light, the kaleidoscope was legitimated by its inventor through a fusion of scientific, literary, and magical terms.²⁵ Brewster described the visual effect of the kaleidoscope as a "magical union of parts," a choice of words that confirms the kaleidoscope's place in a long tradition of natural magic.²⁶ But, as Brewster himself discovered as he watched his beautiful instrument slip from his grasp, the harmonizing of the dissonant fragments of the material world into a magical unity was not so easily achieved when the vagaries of the mass market were involved. Cheap and easily copied, kaleidoscopes soon proliferated across early nineteenth-century London, moving freely from street to drawing room. To quote one of many contemporary poetic renditions:

'Tis a tube made of brass, pewter, copper, or tin,
 With a hole at one end of it where you look in,
 And see — gracious heavens! — you see such a sight,
 Should I try to describe it 'twould take me all night;
 The exquisite figures and colours you can see,
 No painter can copy, no poet can fancy:
 You see — what must all you've before seen surpass
 You see — some *small old broken pieces of glass!*

Need I tell you, indeed, that with such preparation,
So lovely a bauble has caused a *Sensation*?²⁷

These lines capture the interplay between spectacle and intimacy that distinguished the kaleidoscope from other visual sensations of the period, such as the panorama, which, as Stephan Oettermann has argued, was the only other mass medium of this period to be so quickly translated into a pervasive metaphor for a radically new way of seeing and mastering the world.²⁸ The fundamental difference between the panorama and the kaleidoscope being that the latter was synonymous with experiment and perceptual instability rather than mastery. The kaleidoscope was also primarily a domestic entertainment, designed to be taken home and enjoyed in the privacy of one's drawing room; a pleasure amplified by the agency given to spectators to construct their own kaleidoscopic slides out of the found objects in their immediate environment. Brewster's instructions encouraged consumers to put beads, hairs, wires, insects, and other fragments into the glass slides that came with the kaleidoscope to increase the number and variety of visual effects. In addition, the observer could transform the external world into a kaleidoscopic effect if the object plate was removed and the tube turned; to quote Brewster: "The furniture of a room, books and papers lying on a table, pictures on the wall, a blazing fire, the moving branches and foliage of trees and shrubs, bunches of flowers, horses and cattle in a park, carriages in motion, the currents of a river, waterfalls, moving insects, the sun shining through clouds or trees, and, in short, every object in nature may be introduced by the aid of the lens into the figures created by the instrument."²⁹ As this passage suggests, Brewster's audience were anything but docile bodies whose visual experience was passively, yet radically, reconfigured by what Martin Jay has described as the "scopic regime of modernity."³⁰ If anyone in the early reception history of the kaleidoscope was rendered docile, it was Brewster himself, as his loss of the patent to control the production of his wonderful invention evolved into an exemplary tragic tale and a salutary warning to all those inventors who followed in his wake. To quote Brewster's own melancholic account of London in the grips of the Kaleidoscope craze:

You can have no conception of the effect which the instrument excited in London; all that you have heard falls infinitely short of the reality. No book and no instrument in the memory of man ever produced such a singular effect. They are exhibited publicly on the streets for a penny, and I had the pleasure of paying this sum yesterday; these are about

two feet long and a foot wide. Infants are seen carrying them in their hands, the coachmen on their boxes are busy using them, and thousands of poor people make their bread by making and selling them.³¹

What further distinguished Brewster's kaleidoscope from other visual technologies of the time was the fusion of literary and entrepreneurial skills of Brewster himself. In addition to the multiple editions of his much read and cited *Letters on Natural Magic Addressed to Sir Walter Scott*, Brewster also published a prodigious number of essays, reviews, treatises, and works of popular science to accompany and legitimate his inventions.³² Addressing an increasingly scientific and technologically literate readership, the various editions of the kaleidoscope treatise register not only Brewster's conflicted relation to the extraordinary popularity of his invention but an awareness of the growing demand for a more interactive and creative relationship with new forms of technological and visual mediation on the part of his readers, a demand which Brewster was well placed to register given his close involvement with the Great Exhibitions of 1851 and 1862. Indeed, he conducted many famous visitors around the former, including Charlotte Brontë, who incorporated references to the kaleidoscope into *Jane Eyre*.³³ Brewster never missed an opportunity to expand upon the possible imaginative and technical adaptations of his marvelous invention. Fascinated by aesthetic affect, he claimed that the "combinations of forms and colours may be made to succeed each other in such a manner as to excite sentiments and ideas with as much vivacity as those which are excited by musical composition."³⁴ Variations in mood and feeling, in turn, could be induced by alternating between harmonic and dissonant color and formal sequences; "dull and gloomy masses, moving slowly before the eye" excited "feelings of sadness and distress," while "the aerial tracery of light and evanescent forms, enriched with lively colours" inspired "cheerfulness and gaiety."³⁵

Not content to limit the affective scope of his invention to the subjective interiority of the single observer, Brewster also suggested ways in which this experience could be transformed into a public spectacle by being projected onto a screen with the aid of an "electric lime-ball," appropriate musical accompaniment, and the transformation of the internal workings of the kaleidoscope itself into an elaborate magic lantern style apparatus:

The coloured objects might be fixed between the long stripes of glass, moved horizontally or obliquely across the ends of the reflectors; and the effects thus obtained might be varied by the occasional introduction of

revolving object boxes, containing objects of various colours and forms, partly fixed and partly movable. Similar forms in different colours, and in tints of varying intensity, losing and resuming their peculiar character with different velocities, and in different times, might exhibit a distinct relation between the optical and acoustic phenomena simultaneously presented to the sense. Flashes of light, coloured and colourless, and clouds of different depths of shadow, advancing into, or emerging from the centre of symmetry, or passing across the radial lines of the figure at different obliquities, would assist in marking more emphatically the gay or the gloomy sounds with which they are accompanied.³⁶

This wonder-inducing spectacle recalls the hallucinogenic effects of Paul de Philipstal and Etienne-Gaspard Robertson's *Phantasmagoria*, which had been such sensations in Paris and London just over a decade earlier.³⁷ Unfortunately, there are no accounts of Brewster's kaleidoscopic phantasmagoria being realized, although handbills and programs from the Royal Polytechnic Institute in London reveal that some version of Brewster's idea was produced there using dissolving views integrated into a lecture on kaleidoscopic vision given by Dr. John Henry Pepper during the Easter Holidays of 1866 and later still by a popular lecturer named Mr. Benjamin Malden, who ended his scientific lectures with a display of the kaleidoscopic effects of the chromotrope.³⁸ Whether Pepper's or Malden's illusions were true to Brewster's vision, the visual experience potentially offered by the kaleidoscopic phantasmagoria remains a tantalizing one, steeped in the spectacular traditions of natural magic and the sensual pleasures of optical revelation. Other kaleidoscopic variations haunted Brewster, such as a stereoscopic kaleidoscope and a photographic kaleidoscope, which, like his notion of the lime-ball kaleidoscopic lantern, were never realized in practice.

Brewster's increasing distress pervades his sensationalized accounts of the scenes of frenzied consumption that begin each new edition of his kaleidoscope treatise, culminating in the final edition revised for publication in 1858. In the first edition of the treatise, Brewster cast himself as a traumatized witness paralyzed by the marketplace's sublime indifference to the provenance of "this inexplicably wonderful toy." Falling prey to the unscrupulous avarice of London and Paris instrument makers, Brewster mournfully speculates that "no fewer than two hundred thousand" of these cheap, flawed instruments were sold in London and Paris in the first three months of 1817. This insult was compounded by the fact that less than a thousand were constructed of a quality sufficient to convey the extent of the kaleidoscope's visual

and aesthetic power to the million eyes that potentially looked instead through the flawed instruments. By the 1858 edition this account had altered significantly. Enlisting the empirical authority of the *Encyclopaedia Britannica*, Brewster significantly expanded the imperial scope of his invention:

“It very quickly became popular,” says Dr Roget, in his excellent article on the KALEIDOSCOPE in the *Encyclopaedia Britannica*, “and the sensation it excited in London throughout all ranks of people was astonishing. It afforded delight to the poor as well as to the rich; to the old as well as the young. Large cargoes of them were sent abroad, particularly to the East Indies. They very soon became known throughout Europe, and have been met with by travellers even in the most obscure and retired village in Switzerland.”³⁹

Everyone, on every continent, it seemed, was mesmerized by Brewster’s miraculous toy.

P. M. Roget was not the first to note the unique impact of the kaleidoscope; Brewster could have cited any number of essayists and letters to periodicals and magazines inspired by his invention.⁴⁰ One correspondent in the Royal Institution’s *Journal of Science and the Arts* argued that the visual effects produced by the kaleidoscope were far more striking than that of the microscope or the telescope: “Everyone admits that effects are produced by Dr Brewster’s instrument, of which no conception could have been previously formed.” He continues:

All those who saw it, acknowledged that they had never seen any thing resembling it before. . . . No proof of the originality of the kaleidoscope could be stronger than the sensation which it created in London and Paris. In the memory of man, no invention, and no work, whether addressed to the imagination or to the understanding, ever produced such an effect. A universal mania for the instrument seized all classes, from the lowest to the highest, from the most ignorant to the most learned, and every person not only felt, but expressed the feeling, that a new pleasure had been added to their existence.⁴¹

This emphasis on the uniquely democratic nature of the pleasures the kaleidoscope was pervasive in more popular Victorian scientific publications. Typifying this genre, John Timbs, the author of *Stories of Inventors and discoverers in Science and the Useful Arts*, concludes his story about Brewster’s kaleidoscope with the following personal anecdote: “The writer well remembers, in 1814–1815, in a large school, the avidity with which pseudo-Kaleidoscopes were formed of

pasteboard cylinders, blackened planes of glass, and pieces of coloured glass, when the fantastic variety of the results obtained by this rude means scarcely foreshadowed the symmetrical beauty of the forms subsequently obtained by more exact methods.”⁴² Timbs captures the speed with which Brewster’s invention was disseminated, not only on the street, but in institutional spaces and contexts. It also confirms Brewster’s fears for the diminished experience of those who fell prey to early, corrupted versions of his invention.⁴³ Brewster’s daughter and biographer, Margaret Gordon, also acknowledged that the kaleidoscope was responsible for spreading “his name far and near, from schoolboy to statesman, from peasant to philosopher, more surely and lastingly than his many noble and useful inventions.” “This beautiful little toy,” she continued, evoking magical metaphors to amplify her account, “with its marvellous witcheries of light and colour spread over Europe and America with a *furor* which is now scarcely credible.”⁴⁴ Gordon cites Brewster’s own spellbound response to the bewitching powers of his magical little invention in a series of letters he wrote from Sheffield and London to his wife in May 1818. From Sheffield Brewster wrote: “On my arrival at the Tontine Hotel, here, the first sight that displayed itself was a pair of kaleidoscopes in two tubes (most deplorable instruments) lying on the chimney piece. The waiter told us that they were invented by a doctor in London, who had got a patent for them. . . . The Sheffield newspaper lying on the table contained a flattering paragraph about the same instrument; and when I called on Mr Cam, I saw lying on his table a kaleidoscope, most beautiful on the outside, but deplorable within.” Then from London, a still more melancholy account informing his wife that Sir Joseph Banks had observed that if he had managed the kaleidoscope patent correctly he would have made “one hundred thousand pounds by it!”; a claim confirmed by Brewster’s equally melancholic accounts of London in the grips of “Kalleidoscopism.”⁴⁵

III. DUBIOUS GIFTS

Poor craftsmanship and inferior design of the early pirated kaleidoscopes could possibly explain why Byron responded so dismissively to Murray’s gift of one in the autumn of 1818, although Murray’s description of its beautiful design suggests a resemblance to the superbly crafted instruments that London and Birmingham opticians such as Robert Bate and Philip Carpenter were producing at this time.⁴⁶ In his letter dated September 1818, Murray refers to “a very

well-constructed kaleidoscope, a newly-invented toy which, if not yet seen in Venice, will I trust amuse some of your female friends.⁴⁷ A more likely explanation for the poet's seeming indifference lies in Murray's casual association of the kaleidoscope with light feminine distraction; an estimation which the poet's response confirms. Byron simply notes with some irritation the kaleidoscope's arrival, along with a new supply of corn-rubbers, before expressing his frustration that the books he had expected to arrive with this apparently useless array of objects were still in London: "Dear Sir, - Mr Hanson has been here a week and went five days ago; he brought nothing but his papers, some corn-rubbers, and a kaleidoscope. 'For what we have received, the Lord make us thankful!'"⁴⁸ Clearly the pleasures and distractions of the kaleidoscope are far removed in Byron's mind from the serious literary business that the missing books were obstructing, as a far less polite letter to John Cam Hobhouse containing another reference to the kaleidoscope reveals. In his letter Byron urges Hobhouse to bargain hard for the best price:

As one of the poems is as free as La Fontaine - & bitter in politics — too — the damned Cant and Toryism of the day may make Murray pause — in that case you will take any Bookseller who bids best; ... I only request that you & Doug. Will see a fair price — "as the Players have had my Goods too cheap" — if Murray won't another will. — I name no price — calculate by quantity — and quality — and do you and Doug. Pronounce — always recollecting as impartial Judges — that you are my friends — and that he is my Banker. — Spooney arrived here today — but has left in Chancery Lane *all my books* — everything in short except a damned — (Something) — SCOPE. I have broke the glass & cut a finger in ramming it together — and the *Corn rubbers* but I have given it to him! — I have been blaspheming against Scope's God — ever since his arrival. — Only think — he has left everything — everything except his legal papers.⁴⁹

Far away from London, Byron is forced to make do with the tools and things life throws up, a prosaic reality that confronts him daily with the limits of his own mastery, much as his failure to exact the right price for his poetry—articulated in the same letter—riddles his instructions to Hobhouse with anxiety over missed profits. What then are we to make of the metaphoric transformation of the kaleidoscope into a seemingly sympathetic "celestial rainbow" in *Don Juan* so soon after this querulous exchange of words and things? Was it simply a slip of the tongue, which reveals Byron's disavowed fascination with the kaleidoscope's charms, an unacknowledged surrender to the all too

seductive sensation of looking at but not mastering a visual field that perpetually oscillates on the verge of dissolution? Or, alternatively, is the reversal a symptom of the speedy assimilation of kaleidoscopic visual effects into an early nineteenth-century poetics forged out of and in response to life lived in an age of things? Like Brewster's invention, Byron's kaleidoscopic metaphor slips beyond his grasp, resonating in ways that he may or may not have intended. In the process, a rhetorical embellishment becomes a destabilizing distraction within the poem that creates the potential for a counter-reading which would situate the text within the relentless exchange of images and novelties that Byron was striving so vigorously to transcend.

Kaleidoscopic metaphors also surface in the context of creative anxiety in Coleridge's correspondence with his friend James Gilman. In Coleridge's hands, however, the kaleidoscopic metaphor is given another turn, transforming the transient multicolored configuration of Byron's celestial rainbow into the freakish distortions of failed aesthetic production. Bereft of youthful inspiration, the poet's ink turns to mud as the uninspired mind transforms once vital impressions into "kaleidoscopic freaks":

Alas! That Nature is a wary wily long-breathed old Witch, tough-lived as a Turtle and divisible as a Polyp, repullulative in a thousand Snips and Cuttings, *integra et in toto!* She is sure to get the better of LADY MIND in the long run, and to take her revenge too — transforms our To Day into a Canvass dead-coloured to receive the dull featureless Portrait of Yesterday; not alone turns the mimic Mind, the *ci-devant* Sculptress with all her kaleidoscopic freaks and symmetries! Into clay, but *leaves* it such a *clay*, to cast dumps or bullets in; and lastly (to end with that which suggested the beginning -) she mocks the mind with its own metaphors, metamorphosing the Memory into a *lignum vitae* Escrutoire to keep unpaid Bills & Dun's Letter in, with Outlines that had never been filled up, MSS that never went further than the Title-pages, and Proof-Sheets & Foul Copies of Watchmen, Friends, Aids to Reflection & other *Stationery* Wares that have kissed the Publisher's Shelf with gluey Lips with all the tender intimacy of inosculation! — Finis! -⁵⁰

Coleridge rails here against the disappointments of failed revelation. Nature's wonders elude him, and no device, no matter how magical, can animate his deadened capacity to decipher and translate its mysteries into words. All that the poet is left with are inadequate simulations, poor copies of the spells of a witch who no longer does his bidding. There is no rainbow that appears on cue in Coleridge's struggle with

the “kaleidoscopic freaks and symmetries” that his mind produces, and yet there are broader parallels with Byron’s resentful immersion in the world of things. Both Coleridge and Byron were aligned in their distrust of the growing consumer culture of early nineteenth-century London. Both men also railed against the homogenizing and sensation-driven tastes of an emerging reading public that they profoundly distrusted to make distinctions between the timeless pleasures of a poem and the ephemeral distractions of the day.⁵¹ And yet both men find themselves speaking in kaleidoscopic metaphors, whether in a positive or a negative sense. Writing against the grain of their own aesthetic values, they thus paradoxically contribute to the circulatory power of the kaleidoscope as a cultural idea that resonated far beyond the simple act of looking into a turning tube filled with light, mirrors, and colored glass.

In this context the work of Vardill provides an illuminating counterpoint. Vardill had no such trouble with the world of things or with the supposedly feminizing effects of a consumer culture distracted by literary fads, fashionable baubles, and ladies’ toys. Indeed, in her role as a leading contributor to the *European Magazine*, which was promoted as a mediator of the “Arts, Manners, and Amusements of the Age,” Vardill reveled in the age’s attractions and wittily deflated those who claimed to transcend them. The first half of “On a Lady’s Kaleidoscope” is typical of Vardill in this mode:

The mighty tube that shares its fame
 With good old Galileo’s name,
 Compar’d with this, was but a whim
 For cloister’d schools and sages grim.
 The seer of Florence only car’d
 To certify a comet’s beard:
 But art devises this to shew man
 The mind of Fashionable Woman.
 Has it a gilt exterior? — Well,
 It closer makes the parallel:
 At safe and modest distance seen,
 It seems an exquisite machine,
 For science or for genius fit,
 To draw things near, like truth and wit;
 But look within! — What motley heaps
 Of brittle things the covert keeps!
 Odd beads, mock jewels, shreds of lace.
 All find a temporary place.
 What seems a diamond, if you look
 Is but a pin’s head or a hook;

A meteor or a star examin'd
 Is some poor bauble women cram in't.
 See, thro' how many thousand changes
 Their love or their ambition ranges!
 Now in a lover's knot 'tis set,
 Now 'tis a ducal coronet:
 Now ribbons of all hues are streaming,
 And now a knightly star is gleaming:
 Next, the shawl pattern of a Hindu,
 And then — a church's painted window!
 Yet seen by love's light, and afar,
 This motley mass seems regular —
 Sages to buy the toy desire,
 And tho' they laugh they still admire.⁵²

Vardill delights in shifting meanings, playing with expectations, and riddling with gender stereotypes. This continues a theme begun in an earlier verse burlesque on *The Rights of Woman* in which Vardill progressively repositions women at the center of a sequence of religious and philosophical views, from the Christian creation myth to the Talmud, the Koran, and Hindu teachings, from Socrates to Plutarch, and from the Italian quattrocento to contemporary British bards.⁵³ What seems trivial and everyday in both poems is revealed to be profound and central. Sages may laugh, disavow, and feminize, but they are still drawn to a way of seeing and thinking that opens up a variety of unthought-of, or previously discarded, perspectives. What Byron reduces to a telling aside, Vardill transforms into a central organizing trope in a poem that celebrates the transformative powers of the kaleidoscope and the women who turn its metaphoric powers to their advantage. In its admittedly formulaic conclusion specifically addressed to her female readers, Vardill further expands upon the kaleidoscope's conceptually transformative powers, arguing that Brewster's invention provides the ultimate existential conceit:

But, Ladies! Can no other thing
 A parallel with Brewster bring?
 Yes, one thing more — our little life
 Changes as fleetly as a wife,
 When first the gay optician Hope
 Presents us her Kaleidoscope,
 How swift before our dazzled eyes
 The ever-moving pageants rise!
 As in the toy's refracted glass,
 Chang'd ere they fix, the colours pass:

.....

All in the gaudy wheel revolve,
 Shine, mingle, waver, and dissolve, -
 Thus Time and Fortune's turns confuse
 All Heraldry's unnumber'd hues,
 All the gay baubles mortals prize,
 Crowns, garlands, stars, and radiant eyes,
 Scarce gaz'd on ere they fade and fall —
 A breath, a step reverses all. —
 Brief scene, yet beautiful and gay
 Why snatch the secret spell away?
 Ah! Rather worship the illusion
 Which dignifies the rich confusion!
 Let Mem'ry the bright circle fill,
 And turn the lovely prism still.
 Fair mistress of a gayer pow'r,
 To wing away the frolic hour,
 Transform by virtue of a trope,
 The world to a Kaleidoscope,
 Where ever-changing Fancy shews
 Her rarest shapes and richest hues —
 But thy own soul's bright eye shall be
 The best Kaleidoscope for thee.⁵⁴

The consolatory privileging of illusion over reality, rich confusion over clarity and distinction, escapism over the banalities of domesticity that the kaleidoscope seems to signify to Vardill, promises the possibility of a parallel universe in which the hopes of wives, and women more generally, will take on the “rarest shapes and richest hues.” Rather than being an object of derision and disavowed value in the hands of sages and husbands, the “lady’s kaleidoscope” becomes far more than a transient revelatory pleasure. It becomes a tool to think with: one that inspires ever-widening referential patterns and imaginative speculation.

Vardill’s work exemplifies the rich and assimilative language forged out of the contested spaces of early nineteenth-century visual culture. In Vardill’s hands a lady’s kaleidoscope becomes a catalyst for writing and polemic, exemplifying the quite specific ways in which the differential powers of the kaleidoscope could be turned into a resonant cultural poetics. And yet Vardill’s positive engagement with the kaleidoscope is not that far removed from the disavowed fascination and ambivalence of Byron and Coleridge. All three use kaleidoscopic metaphors to capture moments of transformation. In the case of Byron, the transition from annoying material object to poetic metaphor signals a positive turn in Don Juan’s fate as well as introducing into the poem an eye-catching

image with a contemporary vernacular referent, while in Coleridge's letter, the transformation is a negative one, turning difference into derivative distortion, a distortive mimesis which Vardill playfully turns to her rhetorical advantage. More significantly still, in the context of this article's broader historical argument, these resonances and dissonances in the early literary reception of the kaleidoscope prefigure the celebratory embrace of kaleidoscopic vision by Baudelaire, as well as the kaleidoscope's productive assimilation into the critical bricolage of Benjamin and Kracauer. Likewise, there are resonances with the uneasy or skeptical accounts of the relative significance of the kaleidoscope in the work of contemporary historians of visual culture.

In contrast to the uncanny verisimilitude of photography and other more explicitly mimetic technologies, the kaleidoscope offered a more associative visual experience formed out of a random assemblage of external stimuli, objects, colors, and forms. This visual experience, by definition, offered an accessible, variegated perspective to observers, which, in turn, unsurprisingly appealed to writers and artists interested in capturing the eye of an increasingly visually sophisticated audience. The kaleidoscope also offered a different perspective on a perennial aesthetic and cultural fascination with the moment that precedes resolution and definition, when the mind and eye are open to sensation and difference. As the late nineteenth-century journalist George Sims would later observe in his own venture into the socially descriptive possibilities of kaleidoscopic vision in his preface to *The Social Kaleidoscope*, a two-part series on London life:

My purpose in these pages is not to strain metaphor, or to deal figuratively with important social subjects, but rather to describe truthfully and fearlessly the figure or shape of humanity which each turn of the Social Kaleidoscope offers for observation. Nay more than this. It will be my endeavour to trace it from the moment when the component parts are hurrying together, and to follow it down to the period when the atoms have parted and the figure is destroyed.⁵⁵

Sims captures the essence of the enduring appeal of the kaleidoscope. Rather than turning to photography, as so many of his contemporaries who were documenting urban life in the 1880s were doing, Sims found in the endless transformations of the kaleidoscope the ideal analogy for the "moving scenes of London" life.⁵⁶ Like Baudelaire, Sims wanted to be "a kaleidoscope gifted . . . consciousness," immersing himself in the electric chaos of modernity so he could capture life in progress rather than render static types; a pre-cinematic desire suggestive of

the brief inconclusive form of the actualities that the Lumieres would produce only a decade later.

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NOTES

¹ David Brewster also adapted Charles Wheatstone's stereoscope into the far more market friendly lenticular stereoscope, which sold in the millions during the late 1850s and 1860s.

² See Jonathan Crary, *Techniques of the Observer: On Vision and Modernity* (Cambridge: MIT Press, 1990).

³ Gillen D'Arcy Wood provides an account of the emergence of these different modes of mimesis in relation to canonical nineteenth-century literary culture in *The Shock of the Real: Romanticism and Visual Culture, 1760–1860* (London: Palgrave, 2001).

⁴ See Siegfried Kracauer, "The Mass Ornament," in *The Mass Ornament: Weimar Essays*, trans. and ed. Thomas Y. Levin (Cambridge: Harvard Univ. Press, 1995), 75–89.

⁵ Andrew Hewitt describes this process in the context of Havelock Ellis's conception of *The Dance of Life* (1923) in "The Dance of Life: Choreographing Sexual Dissidence in the Early Twentieth Century," in *Victorian Sexual Dissidence*, ed. Richard Dellamora (Chicago: Univ. of Chicago Press, 1999), 279–306, esp. 285.

⁶ Advertisement for "The Kaleidoscope, or Pay for Peeping!" in *The European Magazine and London Review*, January–June 1818, 526.

⁷ Charles Baudelaire, *The Painter of Modern Life*, trans. and ed. Jonathan Mayne (London: Phaidon, 1995), 9–10.

⁸ Amanda Anderson, "Cosmopolitanism, Universalism, and the Divided Legacies of Modernity," in *Cosmopolitics: Thinking and Feeling beyond the Nation*, ed. Peng Cheah and Bruce Robbins (Minneapolis: Univ. of Minnesota Press, 1998), 268.

⁹ Walter Benjamin writes of Baudelaire's kaleidoscopic vision: "Baudelaire speaks of a man who plunges into the crowd as into a reservoir of electrical energy. Circumscribing the experience of shock, he calls this man 'a kaleidoscope equipped with consciousness'" (*Charles Baudelaire* [London: Verso, 1997], 132).

¹⁰ A recent exception to this trend is Noel Gray's essay "The Kaleidoscope: shake, rattle and roll," *Continuum: The Australian Journal of Media and Culture* (1991): 154–62.

¹¹ See Martin Kemp, "'Philosophy in Sport and the Sacred Precincts': Sir David Brewster on the Kaleidoscope and the Stereoscope," in *Muse and Reason: The Relation of the Arts and Sciences 1650–1850, A Royal Society Symposium*, ed. B. Castel, J. A. Leith, and A. W. Riley (Ontario: Queen's Quarterly for the Royal Society of Canada, 1994), 203–32. Kemp also notes the recent revival of interest in the Kaleidoscope—to say nothing of the record auction price of 17,500 pounds for an elaborate instrument by W. Leigh Newton (206).

¹² Jerome Christensen, *Lord Byron's Strength: Romantic Writing and Commercial Society* (Baltimore: Johns Hopkins Univ. Press, 1993), 238.

¹³ Lord Byron, *Don Juan*, in *Byron Poetical Works*, ed. Frederick Page (Oxford: Oxford Univ. Press, 1970), 671.

¹⁴ Christensen, 238.

¹⁵ Simon During, *Modern Enchantments: The Cultural Power of Secular Magic* (Cambridge: Harvard Univ. Press, 2002), 281.

¹⁶ Crary, 116.

¹⁷ See Tom Gunning, "From the Kaleidoscope to the X-Ray: Urban Spectatorship, Poe, Benjamin, and *Traffic in Souls* (1913)," *Wide Angle* 19.4 (1997): 24–61.

¹⁸ David Brewster, *The Kaleidoscope. Its history, theory and construction with its application to the fine and useful arts* (London: John Murray, 1858), title page.

¹⁹ See Percy Bysshe Shelley to James Hogg, 21 December 1818: "Your Kalleidoscopes spread like the pestilence at Livorno. A few weeks after I sent your description to a young English mechanist of that town, I heard that the whole population were given up to Kalleidoscopism. It was like the fever which seized the Abderites who wandered about the streets repeating some verses of Euripides" (*The Letters of Percy Bysshe Shelley*, ed. Frederick L. Jones, 2 vols. [Oxford: Clarendon, 1964], 2:68–69).

²⁰ Anna Jane Vardill, later Niven, grew up in Galloway and lived in London and Lincolnshire. She wrote in a variety of styles, including mock-heroic satires on both sexes and a sequel to Coleridge's *Christabel* (in print before the original). She was a leading poetry contributor to the *European Magazine* from 1814 to 1821. More information on Vardill can be found in Virginia Blain, Patricia Clements, and Isobel Grundy, *The Feminist Companion to Literature in English: women writers from the Middle Ages to the present* (London: Batsford, 1990), 110.

²¹ "Literature of the Day: -The New Magazine," *The Metropolitan Journal of Literature, Science, and the Fine Arts* (May–August 1831): 19.

²² Jon Klancher, *The Making of English Reading Audiences 1780–1832* (Madison: Univ. of Wisconsin Press, 1987), 9.

²³ Klancher, 131.

²⁴ Christensen, 77.

²⁵ More detail of Brewster's inventions and career as a scientific writer can be found in 'Martyr of Science': *Sir David Brewster 1781–1868*, ed. Alison Morrison-Low and J. R. R. Christie (Edinburgh: The Royal Scottish Museum, 1984).

²⁶ Brewster, *The Kaleidoscope*, 2.

²⁷ "The Caleidoscope and the Tetrascope," *The Literary Journal* (17 May 1818): 122.

²⁸ See Stephan Oettermann, *The Panorama: History of a Mass Medium* (New York: Zone Books, 1997). Oettermann argues that unlike other optical technologies of the period, such as the Thaumatrope, the Phenakistiscope, and the Zoetrope, the Panorama quickly underwent a transformation from a specific technical term for a sensational new "pattern for organizing visual experience" into the broadly applied concept of panoramic vision understood as an all-encompassing perspective (6). This new visual experience, Oettermann suggests, materialized the expansive cultural and economic imperialism of nineteenth-century London audiences.

²⁹ Brewster, *The Kaleidoscope*, 84.

³⁰ Martin Jay, "The Scopic Regime of Modernity," in *Vision and Visuality*, ed. Hal Foster (Seattle: Bay Press, 1988), 19–32, and *Downcast Eyes: The Denigration of Vision in Twentieth-Century Thought* (Berkeley: Univ. of California Press, 1993), 1–21.

³¹ Brewster, quoted in Margaret Gordon, *The Home Life of Sir David Brewster* (Edinburgh: Edmonston and Douglas, 1869), 96–97.

³² A complete bibliography of Brewster's work can be found in Morrison-Low and Christie, 107–37.

³³ After meeting Brontë in 1851, Brewster wrote in his diary, as reproduced in his daughter's biography: "One of the most interesting acquaintances I have made since I came here, I made yesterday. It was that of Miss Bronte, the authoress of *Jane Eyre* and *Shirley*, a little, pleasing-looking woman of about forty, modest and agreeable. I went through the Exhibition with her yesterday" (quoted in Gordon, 223).

³⁴ Brewster, *The Kaleidoscope*, 160.

³⁵ Brewster, *The Kaleidoscope*, 160.

³⁶ Brewster, *The Kaleidoscope*, 160.

³⁷ In addition to the many accounts of these popular spectacles, Terry Castle describes the cultural and imaginative reverberations of Philipstal and Robertson's Phantasmagoria in "Phantasmagoria and the Metaphors of Modern Reverie," in *The Female Thermometer: Eighteenth-Century Culture and the Invention of the Uncanny* (Oxford: Oxford Univ. Press, 1995), 2–20.

³⁸ Dr. Pepper's lecture was entitled "Sir David Brewster and The Kaleidoscope" and was advertised in the *Illustrated London News*, 31 March 1866, 306. On 6 July 1874, a projecting device patented as the Kaleidograph was also exhibited in the Great Hall of the Polytechnic. See Polytechnic Programmes Collections, University of Westminster.

³⁹ Brewster, *Treatise on the Kaleidoscope* (London: Archibald Constable, Longman, Hurst, Rees, Orne and Brown, 1819) 7. Brewster quotes from the supplement to the *Encyclopaedia Britannica* (1824), *The Kaleidoscope*, 163.

⁴⁰ P. M. Roget's interest extended to the publication of an article, "On the Kaleidoscope," *Annals of Philosophy; or magazine of chemistry, mineralogy, mechanics, natural history, agriculture and the arts* (January–June 1818): 375–78.

⁴¹ "Article XVIII. History of Dr Brewster's Kaleidoscope, with Remarks on its supposed resemblance to other combinations of plain mirrors," *The Journal of Science and the Arts* 5 (1818): 335.

⁴² John Timbs, *Stories of Inventors and discoverers in Science and the Useful Arts* (London: Kent & Co, 1860), 176.

⁴³ The depleted visual experience nineteenth-century observers would have obtained by looking through these cheaper improvised toys is exemplified by the mid nineteenth-century papier-mâché kaleidoscopes in the Science Museum, London.

⁴⁴ Gordon, 95, 95–96.

⁴⁵ Letters reproduced in Gordon, 97.

⁴⁶ Examples of Bate's polyangular kaleidoscope and Carpenter's kaleidoscope with an accompanying box-set of 12 object plates with a variety of glass beads, wire, and other materials designed to produce diverse effects can be found at the Science Museum, London. The latter is accompanied by Brewster's instructions on how to operate the Kaleidoscope. I am most grateful to Adrian Whicher for his assistance with handling these instruments.

⁴⁷ John Murray to Byron, 22 September 1818, quoted in Samuel Smiles, *Memoir and Correspondence of the Late John Murray*, 2 vols. (London: John Murray, 1891), 1:397–98.

⁴⁸ Byron to Murray, 24 November 1818, in *Byron's Letters and Journals*, ed. Leslie A. Marchand, 12 vols. (London: John Murray, 1973–1994), 6:82.

⁴⁹ Byron to John Cam Hobhouse, 11 November 1818, in *Byron's Letters*, 6:76–77.

⁵⁰ Samuel Taylor Coleridge to James Gilman, 9 October 1825, in *Collected Letters of Samuel Taylor Coleridge*, ed. Earl Leslie Griggs, 6 vols. (Oxford: Clarendon Press, 1956–2000), 5:496.

⁵¹ On Coleridge's distaste for the English reading public, see Coleridge, "The Reading Public," in *The Collected Works of Samuel Taylor Coleridge*, ed. Kathleen Coburn, 14 vols. (London: Routledge Kegan Paul, 1969–2001), 6:36–37.

⁵² Anna Jane V [Vardill], "On a Lady's Kaleidoscope," *The European Magazine and London Review, containing Portraits and Views; Biography, Anecdotes, Literature,*

History, Politics, Arts, Manners, and Amusements of the Age, January–June 1818, 526–27.

⁵³ See Vardill, *Poems and Translations from the Minor Greek Poets and others; written chiefly between the ages of ten and sixteen by a Lady* (London, 1809), 71–83.

⁵⁴ Vardill, *Poems and Translations*, 75–76.

⁵⁵ George Robert Sims, *The Social Kaleidoscope*, 2 vols. (London: J. P. Fuller, 1881), 1:vii–viii.

⁵⁶ Sims, vii.