‘The potent magic of verisimilitude’: Edgar Allan Poe within the mechanical age

JOHN TRESCH

The British Journal for the History of Science / Volume 30 / Issue 03 / September 1997, pp 275 - 290
DOI: 10.1017/S0007087497003087, Published online: 30 October 2008

Link to this article: http://journals.cambridge.org/abstract_S0007087497003087

How to cite this article: JOHN TRESCH (1997). ‘The potent magic of verisimilitude’: Edgar Allan Poe within the mechanical age. The British Journal for the History of Science, 30, pp 275-290 doi:10.1017/S0007087497003087

Request Permissions : Click here
‘The potent magic of verisimilitude’: Edgar Allan Poe within the mechanical age

JOHN TRESCH

The role and status of writing in scientific practice have become central concerns in the history and philosophy of science. Investigations into the rhetoric of scientific texts, the ‘language games’ of calculation, experimentation and proof, and the uses of textbooks, reports and specialized journals in the formation of scientific communities have all brought a growing awareness of what the American author Edgar Allan Poe (1809–49) heralded as ‘The Power of Words’. In discussing several works of this author, who perhaps more than any of his ‘literary’ contemporaries grappled with the growing dominance of science and technology in his time, this paper shows the potential ambiguity and polyvalence of the rhetoric of science. Poe’s writings exploit this increasingly powerful language in a variety of ways: through logical proofs, satires, hoaxes, and the analysis of mysteries, codes and poetry, notably his own. Poe’s unorthodox use of scientific rhetoric highlights the importance of historically specific modes of discourse for the consolidation of truth.

Furthermore, by explicitly figuring the work of the man of letters as a ‘literary technology’, Poe’s writings force us to reconsider the assumed relationship between science and literature. The tendency, as rampant in literary and cultural studies as in histories of science, to place literature in relation to ‘real historical processes’ (whether scientific discoveries, technological innovations, or political and social transformations) as an epiphenomenal residue, ideological reflection, or, at its most ‘active’, as a critique, is itself a historical product, reflecting (and reproducing) the current status of art vis-a-vis other fields of cultural production. This paper questions the assumptions of strands of literary criticism that treat literature as a free space concerned only with itself, as well as literary historical approaches that take the text as the fully determined product of the author’s biography or of his political and economic circumstances.

We cannot take for granted that a specific relation between the printed word and the reader or between different domains of discourse is a historically persistent one. According to Roger Chartier, at the end of the eighteenth century a massive expansion in the quantity of printed matter transformed the relation between the text and its public, bringing issues

* Department for the History and Philosophy of Science, University of Cambridge, Free School Lane, Cambridge CB2 2RH, now Ecole Normale Superieure, Paris, France.

I would like to thank Simon Schaffer who supervised this essay. I would also like to thank John Forrester, Ian Higginson and Jim Secord for their helpful criticisms and advice.


of authority and belief to the fore. During Poe’s lifetime, the newly christened class of ‘scientists’ fought to establish their authority in the face of speakers deemed unqualified; it was by means of new machines (printing technologies, as well as experimental devices demonstrating the truth of claims) that the boundary between ‘real science’ and other modes of discourse was being definitively constructed.

In this paper, the questioning of the boundary between, on one hand, the hard facts of science and technology and, on the other, the fluid, epistemologically dubious productions of what are now read as ‘humanities’ revolves around the opposition between the mechanical and the natural as found in the writings of Poe and his contemporaries. If we bracket our current assumptions about the ‘literary’ status of Poe’s works and return the texts to the material and intellectual context in which they were created and first appeared, we see them drawing attention to and attempting to reconstruct the line separating scientific writing from other literary work. By examining Poe’s oeuvre as a heterogeneous ensemble of devices produced within and acting upon his society, I wish to show this ‘author of fictions’ as uniquely re-engineering the relation between the human and the machine.

**SOLVING ‘THE POE MYSTERY’**

Poe’s tales and criticism make frequent use of buried treasures, unsolvable crimes and cryptography. In combination with his tendency to people his stories with a variety of doubles with an ambiguous relation to the author, such themes challenge readers to solve the mystery that his work and his varied critical reception seem to pose. After his death many of his contemporaries, influenced by the defamatory biography written by his literary executor, Rufus Griswold, evaluated his life and works from a moral standpoint, often questioning his very humanity. His sometime literary ally Evert Augustus Duyckink wrote:

> His instrument is neither an organ nor a harp; he is neither a King David nor a Beethoven, but rather a Campanologian, a Swiss bell-ringer, who from little contrivances of his own, strikes a sharp melody which has all that is delightful and affecting, that is attainable without a soul. We feel greatly obliged to Messrs. Willis, Lowell, and Griswold, for helping to wheel into public view this excellent machine.

Another reviewer judged:

> He was an intellectual machine without a balance wheel; and all his poetry, which seems perfect in itself, was mere machine work.

---

These contemporaries explicitly figured Poe as a soulless machine.

Later commentators, following the lead of Poe’s French champion, his ‘semblable’ and ‘frère’ Charles Baudelaire, instead made Poe’s tortured and profound soul their central focus. The legend persists of Poe as the accursed romantic poet, an ‘aristocrat by nature even more than by birth’. He was ‘the Byron gone astray in a bad world’, the genius on the borderline of madness, the artist whose hatred for the idiocy of public tastes was matched only by the public’s utter lack of understanding of his brilliance. That Poe is now ‘generally acknowledged [as] the first critic in [the United States] to insist that literary work be measured by literary standards alone’ and is enshrined in the canon of English language literature is largely attributable to the force of his standing in France, where he is acknowledged as a central influence on Baudelaire and as the American ancestor of the Symbolist poets. This strand of analysis, which sees Poe as the defiant visionary, outside of or in opposition to his society, was suggested by his own self-representation; the fact that his short stories and poems, many of which avoid naming the characters or setting of the action, or occur in a realm of ideality, in his words ‘Out of Space – out of Time’, has made it a ‘commonplace that Poe’s stories are entirely without social relevance’.

To counter the excesses of Baudelaire’s refashioning of Poe in his own image, much work, particularly in English, has situated him in relation to his journalistic milieu, depicting him as a product of his time whose writings slavishly followed the demands of the market-place. For example P. L. Pattee, in 1923, stressed that Poe ‘studied the tastes of his age with the methods and the instincts of a yellow journalist’; likewise G. E. Woodberry, in 1909, quoted appreciatively by Yvor Winters, stated: ‘He had in the narrowest sense, a contemporaneous mind, the instincts of the journalist, the magazine writer’. While not all accounts of Poe as ‘magazinist’, a term he coined to describe the new role of the author, like himself, conversant in all styles and formats of magazine work, are derisory, the focus in such treatments is ordinarily placed on influences, borrowings and outright plagiarisms in the work. Where Baudelaire’s version of Poe mythologized him as the prototype of the Original Visionary Artist, less ‘Romantic’ critics, much like his contemporaries quoted above, have offered us the paint-by-numbers artist, the hack writer, the author who mechanically produced work according to a formula common to publications of his day.

As the literary obituaries above suggest, the image of the machine was as central to Poe’s reception and writings as it was in public discussions of progress in the mid-1800s. The
machine was a focal point for anxieties surrounding the unstable distinction between the machine and the human, the dead and the living, and the inauthentic versus the factual. Poe’s work took the machine as its subject and is inscribed within a literary practice thoroughly permeated by a recently industrialized mode of production. He used this combination to exploit unsettled anxieties about human progress and mechanization in an era overshadowed by the Enlightenment.

THE MECHANICAL AGE AND THE TECHNOLOGICAL SUBLIME

By the 1830s, when Poe first began looking for a ‘market for his brain’, developments in science and technology had become an international obsession. The homespun ‘usefulness’ that Benjamin Franklin had made into a creed found a compelling echo in a fashionable new philosophy from England, under the name ‘utilitarianism’. J. S. Mill placed the machine at the centre of his account of the present: ‘To see a powerful, efficient machine in the landscape is to know the superiority of the present to the past.’ Sir David Brewster, editor of the popular scientific review the Edinburgh Philosophical Journal (later Edinburgh Journal of Science), was not alone in praising the ‘one vast miracle’ of modern science, making the machine and science the bearers of a millenarian narrative of progress that, while parallel to the Lake Poets’ hope for a return to full knowledge, shared little of their fear of the ‘shades of the prison-house [which] begin to close’ upon the growing boy through education, worldly knowledge and modern custom. American journals and newspapers were filled with incredulous accounts of the wonders produced by science and technology. The rhetoric of what Leo Marx has called the ‘technological sublime’ is neatly typified by his extract from a magazine of 1844: ‘Objects of exalted power and grandeur elevate the mind that seriously dwells on them, and impart to it greater compass and strength…The same will be true of our system of Rail-Road.’

By means of the new machines, whether the factory, railroad, or steamboat, mankind would at last, according to this ubiquitous mode of rhetoric, overcome limits placed by nature that had before inhibited progress. The machine was a symbol not to be restricted to its physical instantiations, however. The physics of Newton and Laplace continued to offer a compelling image of a mechanical universe created by a ‘watchmaker God’. Samuel Bentham and his brother Jeremy, who along with Mill was a frequent target of Poe’s sarcasm, sought to regulate the functioning of society, standardizing workshops, dockyards and prisons through panoptic surveillance and calculation.

In the late eighteenth and early nineteenth centuries, the complex of poets now classed

22 Marx, op. cit. (20), 194.
as Romantic were vocal critics of a society being transformed by wage labour, mechanistic philosophy and new inventions. While the views of these authors were widely varied, in very general terms they each drew inspiration from ‘nature’, expressed a faith in its wisdom, and saw a golden age in which humanity was harmoniously united with it either in the past – Eden, or childhood – or in a future utopia: ‘the marriage of mind and nature’. Poetry, then, as ‘the spontaneous overflow of powerful feelings’ expressed the inner nature of the poet as a step towards reconnection with the nature without. The English critic Thomas Carlyle continued this tradition, definitively figuring the arrival of large-scale industrial capitalism in the opposition between the ‘mechanical’ and the ‘dynamical’. In an essay from 1829 widely recognized and commented upon in the United States he wrote that were he to put a name on the age, he would not choose the ‘Heroical, Devotional, Philosophical, or Moral Age, but, above all others, the Mechanical Age’. For Carlyle this insinuation of the machine into ‘not the external and physical alone… but the internal and spiritual also’, was seen as a threat to the ‘dynamical’ aspect of humankind, the ‘primary, unmodified forces and energies of man’, the ‘mysterious springs of Love, and Fear, and Wonder, of Enthusiasm, Poetry, Religion’. In the United States, Carlyle’s promoter and friend, R. W. Emerson, made similar critiques about the complexity and dangers of a suddenly industrialized society.

Poe was perhaps less concerned with defending mankind’s soul than he was with creating a space for poetic production in the new nation. In one of his repeated calls for an American literature, Poe complains:

> Our necessities have been mistaken for our propensities. Having been forced to make railroads, it has been deemed impossible that we should make verse. Because it suited us to construct an engine in the first instance, it has been denied that we could complete an epic in the second. Because we were not all Homers in the beginning, it has been somewhat too harshly been taken for granted that we shall be all Jeremy Benthams to the end. Poe problematizes the production of poetry in a nation and age dominated by railroads, engines and utilitarian philosophy.

**POE INSIDE ‘THE MAGAZINE PRISON-HOUSE’**

Exposed to the writings of Lord Byron as a student at Thomas Jefferson’s liberal University of Virginia, Poe followed the notorious idler’s flamboyant example to the extent that debts from purchases including three yards of ‘Super Blue Cloth’, a set of ‘Best gilt Buttons’, and a velvet vest along with $2500 in gambling losses led to his expulsion after one year. He then spent two years in the US Army under the assumed name of Edgar A. Perry, eventually securing a commission to the United States Military Academy at West Point. The Academy, sponsored by Jefferson’s political antagonist, the Federalist Alexander

---

27 ‘Some secrets of the magazine prison-house’ (Harrison, op. cit. (12), xiv, 160–4) describes the ‘poor-devil’ author’s sisyphean struggle to earn a living.
John Tresch

Hamilton, was in many ways the polar opposite of the University of Virginia. Where the primarily literary curriculum and German-inspired philosophy of education of Jefferson’s ‘academical village’ required no courses of the students and left them many unscheduled hours, at West Point, the first American institution to offer a primarily scientific curriculum, a disciplinary regime of constant surveillance modelled on that of the Ecole Polytechnique, was applied as much in the training of mathematics, geometry, drafting and engineering as it was in the military drill.\textsuperscript{29}

These institutional experiences were joined together in the definition Poe formed of his eventual trade. From referring to himself in youth as ‘Edgar. A. Poe-t’\textsuperscript{30} he came to identify himself as a ‘magazinist’:

The whole tendency of the age is Magazine-ward... We now demand the light artillery of the intellect; we need the curt, the condensed, the pointed, the readily diffused.\textsuperscript{31}

In Poe’s self-definition, the work of the modern man of letters will resemble that of the gunman.

Poe worked at all levels of this trade in a number of widely read magazines, not merely as contributor but as editor, proprietor and typesetter. This last skill demanded the precise and repetitive positioning of letter blocks into a pre-existing format of columns and headings, a technique in which letters, words and sentences were concretely assembled from replicable, standardized and interchangeable parts. His story ‘X-ing a paragrab’\textsuperscript{32} makes light of the dependence of the word upon this material technology, concluding in an absurd excerpt from a magazine written by an editor who seeks to mock the ‘oo-ooing’ of a rival journal; when the article is sent to the dim-witted typesetter, who has run out of ‘o’s, the printed copy appears with ‘x’s replacing the swarm of ‘o’s. The final outcome resembles a densely written code. Poe’s obsession with cryptography, on which he published a popular series in several journals, challenging readers to submit encoded messages for him to decipher, connects the coded messages, veiled allusions and obscure references he left throughout his writings to this technology of mechanical reproduction.\textsuperscript{33}

The nature of the magazines in which Poe’s works originally appeared has remained a source of some confusion for later readers. Although now frequently assembled under the category of ‘Tales’, Poe’s writings appeared in publications that combined articles of varied types; significantly, these magazines put tales of fiction, reports of scientific discoveries, fashion plates, poems and moral arguments at times literally on the same page. Michael Allen has demonstrated how Blackwood’s Magazine, printed in Great Britain but reprinted in the United States, became the most successful of these new magazines by


\textsuperscript{31} Harrison, op. cit. (12), xvi, 117–18.

\textsuperscript{32} Harrison, op. cit. (12), vi, 229–37.

\textsuperscript{33} See ‘A few words on secret writing’, Harrison, op. cit. (12), xiv, 114–49.
maintaining a careful balance between articles intended for ‘the few and the many’, creating a readership the older quarterlies, or the expensive market of books, never reached: ‘This second great wave of nineteenth-century journalism...looked for its audience to the great widening circle of those reaching the middle-classes during economic expansion and made literate by the new system of public education.’\textsuperscript{34} By the time Poe was hired as editor of the \textit{Southern Literary Messenger} in the early 1830s, the public forum of journals had become a obligatory point of passage for the dissemination of knowledge of all kinds. Advances in printing technology, specifically the emergence of the steam press, stereotyping,\textsuperscript{35} and later anastatic printing, which produced ‘absolute \textit{facsimiles} of the originals’,\textsuperscript{36} allowed the quarterlies, weeklies and the new dailies to proliferate. The accumulation of capital required to own and operate this technology meant that only a limited number of magazines with a wide distribution could survive; scientists, poets, politicians and critics alike were forced to show their wares in an oligopolized market of ideas.

The ‘Blackwood’s formula’ combined critical opinions, written in a tone of exclusivity and authority, with gossip, fiction and sensationalism, considered as lighter fare for a wider consumption.\textsuperscript{37} This formula of diverse tones, styles and audiences was part of Poe’s vision as both editor and author. Poe’s mastery of these varied genres allowed him to analyse and apply the principles of their construction. His satire ‘How to write a Blackwood’s article’\textsuperscript{38} suggests that the popular genre of the graphic, coolly described first-person ‘tale of sensation’ could, like the magazine itself, be assembled following a formula for the combination of its elements. Even in this relatively early work, however, Poe complicates what could be read as a critique of the mechanical repetition inherent in a formulaic genre by following ‘How to write’ with ‘A predicament (The scythe of time)’\textsuperscript{39} This tale, written in the voice of an aspiring author who follows Mr Blackwood’s recommendations to absurd effect, implies that mere demonstration of the formula for the production of a work does not equal the ability to produce such a work. The result is a satirical treatment of the satire, itself a generic form frequently appearing in Blackwood’s. The critical standpoint of the first article is satirically destabilized by the second, whose own epistemological foundation must remain nebulous.

A similarly complex ironic structure appears throughout Poe’s work. In the fantastic and ratiocinative tales as much as in the essays and poems, the form of the work, its author, the reader and the reader’s image of the author engage in a complicated dialectic of satires of satires and expositions of exposés, a recurrent logical architecture in which ‘there seems eternally beginning behind beginning’.\textsuperscript{40} I will present this dialectic in greater detail

\textsuperscript{34} Allen, op. cit. (17), 130.
\textsuperscript{35} ‘On a technological level, the increasingly widespread use of stereotyping, since its introduction into America in 1813, had made possible the low-price, large circulation form which has prevailed with such journals ever since.’ Allen, op. cit. (17), 130. See also F. L. Mott, \textit{A History of American Magazines, 1741–1850}, New York, 1930; R. D. Brown, \textit{Knowledge is Power: The Diffusion of Information in Early America, 1700–1865}, New York, 1989.
\textsuperscript{36} ‘Anastatic printing,’ Harrison, op. cit. (12), xiv, 155.
\textsuperscript{37} Allen, op. cit. (17), 19.
\textsuperscript{38} Harrison, op. cit. (12), ii, 269–82.
\textsuperscript{39} Harrison, op. cit. (12), ii, 283–97.
\textsuperscript{40} ‘Marginalia XLIII’, in Poe, \textit{Works}, op. cit. (26).
through a discussion of three of Poe’s more prosaic works, ‘The balloon hoax’, ‘Maelzel’s
chess-player’, and ‘Philosophy of composition’, each of which enacts similar relations in
explicit dialogue with machines.

‘THE GREAT PROBLEM IS AT LENGTH SOLVED’

The newspaper article by Poe now categorized as a short story entitled ‘The balloon
hoax’ originally appeared on 13 April 1844 in the New York Sun, the first of the ‘penny
dailies’, newspapers sold on street corners according to the ‘newsboy system’. These
dailies, made possible by an exponential increase in the production capabilities of the steam
press (the Sun’s masthead depicted a massive, radiant press floating above the earth) were
accessible to those for whom the sixpenny dailies, purchased by subscription, were too
great an investment. As the Sun’s editor wrote ecstatically in 1835, looking back over the
growth of the paper from its beginning in 1833 to a circulation of 19,360, then the world’s
largest, the paper’s expanded readership was seen as instrumental to a transformation of
the modern phenomenon of the mass:

Already we perceive a change in the mass of the people. They think, talk, and act in their own
interest, and feel that they have numbers and strength to pursue it with success. Poe attributed the rise of the Sun and the other penny dailies that attempted to follow its
remarkable success to a single work, John Locke’s ‘Moon story’, whose first instalment
appeared in the Sun on 25 August 1835. Locke’s series of articles fabricated in minute
detail the imagined findings of John Herschel from his South African observatory. Record
numbers of readers credulously followed the hoax from its first descriptions of the strange
creatures and civilization observed on the moon to the fire that destroyed Herschel’s
laboratory two weeks later. While Poe noted the similarities between Locke’s work and his
own more fanciful ‘Hans Pfaall’, appearing two months before the ‘Moon hoax’, which
described a balloon voyage to the moon, he deferred to Locke’s achievement and to Locke
himself. Ten years later, however, he published his own hoax in the Sun, adopting
Locke’s realistic approach to make a scientific achievement, though astounding, believable.
This article, announced in advance notices and printed in a special edition, reported a
group of aeronauts’ successful flight in a newly perfected air balloon from England to
Charleston, South Carolina, in three days. The paper was sold in great quantities to an
eager audience and appears to have been believed by many of its readers.

‘The balloon hoax’ addresses the popular obsession with the machine in three ways.

41 Harrison, op. cit. (12), v, 224–41.
43 O’Brien, op. cit. (42), 129.
44 See M. J. Crowe, The Extraterrestrial Life Debate 1750–1900: The Idea of a Plurality of Worlds from Kant
45 O’Brien, op. cit. (42), 125.
46 Harrison, op. cit. (12), ii, 330–44.
47 In ‘Autography’ Poe says of Locke, ‘There is an air of distinction about his whole person – the air noble
48 Poe’s own account of the extent of that response should be contrasted with that of Thomas Lowe Nichols.
First, the work of composing the article may be seen as mechanical. As shown by ‘How to write a Blackwood’s article’, Poe viewed ‘genre’ as a technology of mass production. An article is susceptible to analysis; once its principles are understood they may be methodically applied ad infinitum. ‘The hoax’ reproduces the principles of the technological news article, with the content suggested by the public’s fascination with mechanical wonders and details supplied by various pamphlets and encyclopaedic sources.49 Once constructed and put to work, the article produces excitement among the masses and profits for the editor. This jeu d’esprit, while satirizing the mechanized response of readers to wonderful machines, is itself produced mechanically; it is a machine designed to produce an effect.

Secondly, the topic of the article is a new technology. The vacuity of the ecstatic first announcements is ballasted by making the balloon’s technology the main protagonist of the tale. Following an introduction listing the journey’s precise time and the characters on board (all of whom were well-known figures involved in aeronautics),50 the tale describes at length the flaws of previous models and details the innovations of the balloon ultimately used (‘which, through want of time, we have necessarily described in an imperfect manner’), focusing on the Archimedes-inspired screw that controlled the balloon’s height, a guide-rope serving as a regulating counterweight and the perfection of a cane and silk rudder. This nearly impenetrable description was crucial to produce ‘the potent magic of verisimilitude’.51 The ‘Journal’ that follows unfolds with the same graphic precision (with occasionally effusive passages mimicking the style of its alleged author, Mr Harrison Ainsworth)52 as did the description of the balloon’s construction; each mechanical difficulty and perceptual novelty is duly recorded, with the author monitoring his own predictably ‘rapturous’ responses along with the progress of the balloon. In the article’s exclusive publication in the Sun, technologies of distribution are likewise implicated. The editor notes that it is ‘through the energy of an agent at Charleston, S.C. [that] we are enabled to be the first’ to print the story. Although it would be one month before the first long-distance telegraph would mark the definitive ‘annihilation of space’,53 the remark would be understood by readers to refer to competition among the dailies to get the news first. The improvements in communication technology at the time used by the Sun included special express trains run from Baltimore and a fleet of carrier pigeons.54

Finally, as a hoax, the article ridicules while also proving the machinic aspect of society. Employing the rhetoric of the technological sublime in the advance notices (‘Astounding News!…Signal Triumph’), and throughout the article (‘The great problem is at length solved! The air, as well as the earth and the Ocean, has been subdued by science’; ‘God be praised! Who shall say that anything is impossible hereafter?’), Poe sought to generate the enthusiasm with which earlier wonders had been greeted. By

49 Beaver, op. cit. (48), 368–74.
50 See O’Brien, op. cit. (42), 152, Beaver, op. cit. (48), 372, for histories of these individuals.
51 Poe, on Robinson Crusoe, Harrison, op. cit. (12), viii, 170.
52 See Beaver, op. cit. (48), 371, for discussion of the literary burlesque of Ainsworth.
53 Sun, 27 May 1844, quoted in O’Brien, op. cit. (42).
54 O’Brien, op. cit. (42), 146.
applying the proper techniques the masses are easily manipulated: 'The nose of the mob is its imagination. By this at any time, it can be quietly led.'§ The final line of the article, 'What magnificent events may ensue, it would be useless now to think of determining,' underlines the superfluity of thought in a mob; each reader is an automaton, and the mass itself acts as a single, easily manipulated entity. The reader's response is of the order of the machine.

DEBUNKING THE AUTOMATON

The newspaper hoax reports as facts events that never occurred. Once the hoax is officially debunked, the blurred boundary of fact and fiction is re-established. Similar cases of blurred boundaries dominated the public imagination in the early- and mid-nineteenth century in the form of travelling displays of automatons and mesmerism. As Alison Winter states, these two spectacles were symbolically linked by the confusion they created between the living and the dead and their location within the same networks of mass entertainment: 'The analogy of human to mechanical was impossible to miss, since mesmerised subjects, ventriloquists, and inanimate “human automata” were literally interchangeable on the popular stage.'§ Poe pushed the ambiguous status of the mesmerized subject to uncanny effect in his mesmeric ‘reports’, which profited from magazines’ unlabelled juxtaposition of news reports and tales of imagination by presenting his incredible stories in such factual terms that they were frequently believed.§§ The uncertain genre of ‘The facts in the case of M. Valdemar’ and ‘Mesmeric revelation’ played upon contemporary anxiety between fact and fiction, living and dead, and the human and the machine. Constraints prevent a further exposition; I will note only that reading these articles as enactments of mesmerism upon the reader would present Poe’s reflexive play on the concept of mechanization in another suggestive idiom.

The automaton, even more explicitly than mesmerism, brought anxiety about the difference between the human and the machine to the fore. Writing now as a debunker, rather than a hoaxer, Poe devoted a lengthy essay, ‘Maelzel’s chess-player’ to a chess-playing automaton, designed by the Hungarian Von Kempelen, which toured exhibition halls throughout the United States from 1826 to 1827. Presented by the inventor Maelzel, this metallic Turk sat at a large desk smoking a pipe and, to the sound of whirring gears, beat human contestants at chess (Figure 1, top). The automaton had already been exposed as a fraud when Poe published his article, yet this rhetorical performance, with Poe as the voice of sound reason opposing ‘men of…discriminative understanding, who make no scruple in pronouncing the Automaton a pure machine, unconnected with human agency in its movements’ served to confirm his growing reputation at the same time as the SLM’s
Edgar Allan Poe within the mechanical age

Figure 1. Top: Maelzel’s chess-player opens its doors for the audience, revealing only machinery. From Jacques Cabau, Edgar Poe, Paris, Ecrivains de Toujours/Seuil, Paris, 1960, 1. Bottom: Three images from Brewster’s Letters on Natural Magic (London, 1832, 41) expose the trick: as the doors are opened one by one, the human chess-player adjusts his position behind the façade of gears and mirrors.

‘tomahawk’, whose intolerance of intellectual and artistic mediocrity matched the sharpness of his tongue. The article was read as the careful yet devastating expose of a hoax in the tradition of the Enlightenment, unmasking the idols of the gazing populace by means of the pure light of reason.

The article seeks to demonstrate beyond any objection that ‘it is quite certain that the operations of the automaton are regulated by mind, and by nothing else’. While several pages are devoted to a technical explanation of how a skilled chess-playing dwarf must be hidden within the machine during Maelzel’s ritualized demonstration of its interior and while the game is played (see Figure 1, bottom), an analysis largely plagiarized from David
Brewster’s *Letters on Natural magic*, the greater part of the article is spent in a ‘train of suggestive reasoning’. These seventeen observations treat less the practical issue of the machine’s construction than the logic of the confidence game. The fact that ‘the interior of the trunk is seen to be crowded with machinery’, an effect created by mirrors, ‘must necessarily have reference to the spectator’; the appearance of a complicated machinery diverts attention from the dwarf’s presence. Likewise, the appearance and movements of the Turk are jerky and unnatural. For Poe this is proof of the bluff and counterbluff of Maelzel, whose other automatons were ‘free from the semblance of artificiality’: ‘Were the Automaton life-like in its motions, the spectator would be more apt to attribute its operations to their true cause (that is to human agency within).’ The epistemology of the hoax is Poe’s key to decoding the feints and misdirections of Maelzel, also remembered as the inventor of the metronome, who would claim to have mechanized not merely music but the human intellect. As an exposé the article can be read as re-establishing the division between the human and the machine.

The fact that Brewster’s *Letters*, noted by Poe as a muddled and failed attempt to subject the automaton to a rational debunking, is the unquestionable source for most of Poe’s technical analysis, leads to two significant and related points about Poe’s dialectic of the machine. First, while both Brewster and Poe make rhetorical use of Charles Babbage’s calculating machine, they do so to divergent purposes. For Brewster, the difference engine, which accurately performed and transcribed astronomical tables, forms the most recent and highest stage of a great chain of being presented in his *Letter* on automatons. His essay builds from descriptions of Vaucanson’s *bagatelles*, like the blushing lady and the digesting duck, through the exposure of the chess automaton’s trick, to a description of Babbage’s genuine innovation. In describing the calculating machine, his tone switches from scepticism to enthusiasm: ‘The effects which it is capable of producing, and the works which in the course of a few years we expect to see it execute, will place it at an infinite distance from all other efforts of mechanical genius.’ For Brewster this machine was a giant step along the road of human progress achieved through the ‘one vast miracle’ of modern science.

Poe deploys the example of Babbage to different effect. After paraphrasing Brewster’s descriptions of Vaucanson’s wonders, he asks: ‘But if these machines were ingenious, what shall we think of the calculating machine of Mr. Babbage?’ Unlike Brewster, Poe answers...
by placing the calculating machine far below the chess-player, which he locates at the apex of a different chain of being; if purely mechanical, the chess automaton would be 'beyond all comparison, the most astonishing of the inventions of humankind'. The two machines were qualitatively different. The calculating engine operates simply according to a 'succession of unerring steps liable to no change'; 'certain data being given, certain results necessarily and inevitably follow'. A game of chess, however, proceeds unpredictably. Unlike the fixed procedures of an algebraic equation, in chess 'a few moves having been made, no step is certain'.\footnote{71}{Harrison, op. cit. (12), xiv, 10. This is one of the earliest appearances of Poe's identification of a fluid logic of 'leaps' incommensurable with either deduction or induction ('two narrow and crooked paths – the one of creeping and the other of crawling'), the starting point for his extraordinary cosmological treatise \textit{Eureka} (xvi, 196). See E. Eco and T. Sebeok, \textit{The Sign of Three: Dupin, Holmes, Peirce}, Bloomington, 1983.} Once Poe has placed the task of the difference engine far beneath that of the chess-player, Babbage's machine disappears from the account; all further analysis is directed at the chess-player. Through this rhetorical sleight-of-hand, he implies that the force of argument he deploys to defuse the automaton would be more than sufficient to apply to the much humbler achievements of the calculating engine as well. Thus rewriting the narrative of mechanical progress, Poe quietly redirects the thrust of Brewster's teleology, placing himself, the infallible mechanical reasoner, at its highest point.

The second issue raised by the fact that many of the elements of Poe's exposé have been traced back to Brewster's \textit{Letters} is that of the accusation of plagiarism that has quite justly followed much of his work. Critics have repeatedly pointed out Poe's sources with a mixture of recrimination and awe; the critic supplants the image of Poe as an original thinker with one of Poe as an 'easy-street…cobbler';\footnote{72}{S. J. Gould, 'Poe's greatest hit', \textit{Natural History} (1992), 7, 10–19.} methodically hammering together found objects and audaciously passing them off on innocent students of literature as art. He positively invited such scrutiny. Poe was one of plagiarism's most vituperative attackers as well as one of its most infamous practitioners. He published 'Pinkanadia', a series of notes exposing cases of suspected or incontestable plagiarism throughout the history of literature (for example 'There are one thousand lines identical in the \textit{Iliad} and \textit{Odyssey}'), while identifying himself as originality's greatest advocate.\footnote{73}{'The philosophy of composition': 'keeping originality always in view', Harrison, op. cit. (12), xiv, 48.} At times he took a provocatively moralistic tone:

\begin{quote}
It is impossible, we should think, to imagine a more sickening spectacle than that of the plagiarist, who walks among mankind with an erecter step, and who feels his heart beat with a prouder impulse on account of plaudits which he is conscious are the due of another.\footnote{74}{'Marginalia CLXXXVIII', in Poe, \textit{Works}, op. cit. (26).}
\end{quote}

However, as in 'Pinkanadia', the judgement becomes complicated in the following, where it is impossible not to hear a note of admiration (or pride) for the skilful purloiner of letters:

\begin{quote}
To disguise his stolen horse, the uneducated thief cuts off the tail; but the educated thief prefers tying on a new tail at the end of the old one, and painting them both sky blue.\footnote{75}{'Marginalia CXXI', in Poe, \textit{Works}, op. cit. (26).}
\end{quote}
The incriminating evidence was amply indexed throughout his writings, with clues planted in his voluminous correspondence, his frequent contributions to magazines, and his ‘Marginalia’.

In ‘Maelzel’, Poe openly referred to Brewster’s *Letters*, as if taunting his audience. He methodically reassembled his sources in the language of the scientific proof, the language of pure reason and observation devoid of emotion or personal interest, according to the principles of the genre of the Enlightenment-style exposé. Whether or not this is ‘original thinking’ is irrelevant; for Poe ‘to originate, is carefully, patiently, and understandingly to combine’. Poe’s claim to originality in ‘Maelzel’ is, paradoxically, the unveiling of the human agent inside the automaton in a mechanical fashion. Rather than clarifying the boundaries between the machine and the human, which is the ostensible aim of the exposé, the plagiarized, mechanically constructed article adds a further layer of complexity.

THE WHEELS AND PINIONS OF THE SUBLIME

The main difficulty posed by Poe’s mission statement, ‘The philosophy of composition’, has been its appearance of utter senselessness. In the light of the previous discussion its ironic positioning becomes clearer. In that essay, published on the heels of the popular success of ‘The raven’, Poe reconstructs the process by which he composed the poem. The result reads as an instruction manual for the assemblage of a sublime work. If Maelzel’s chess-player had been authentically pure machine it would have been far above Babbage’s calculating engine whose ‘movements, however complex, are never imagined to be otherwise than finite and determinate’. In the ‘Philosophy of composition’ Poe claims that his own mode of poetic production is just as mechanical as that by which Babbage’s calculator produces its tables: ‘It is my design to render it manifest that no one point in its composition is referable either to accident or intuition – that the work proceeded step by step, to its completion with the precision and rigid consequence of a mathematical problem.’ He begins with a consideration of the effect to be produced in the reader, dismissing ‘as irrelevant to the poem per se’ the circumstances that led him to create a popular poem. He then explains the considerations that arose at each point of the procedure and presents, in the form of the completed ‘Raven’, the means he found for solving each step: the poem must not exceed one hundred lines; it should treat the ideal ‘Beauty’; its tone should be melancholy, ‘the most legitimate of all the poetic tones’; it should have a refrain adaptable to ‘produce continuously novel effects’; and so on. As the axiomatic scheme unfolds, the author-machinist at each step selects the element perfectly suited to the effect.

It is this vision of poetry as a form of engineering moving logically from consideration of the effect to be produced to the means of producing it, from general and infallible axioms on the nature of poetry to local determinate choices, that has most baffled

76 Peter Snook, Harrison, op. cit. (12), xiv, 73.
77 Seelye, op. cit. (30).
78 Harrison, op. cit. (12), ix, 10.
79 Harrison, op. cit. (12), ix, 195.
English-speaking critics. While the subject and execution of most of Poe’s poetry as well as many of his tales reveal the influence of early nineteenth-century English poets, including Coleridge, Shelley and Byron, the ‘Philosophy’ represents a complete overturning of a basic tenet of the Romantics. Wordsworth’s oft-repeated declaration, that ‘Poetry is the spontaneous overflow of powerful feelings’, has organized much of the criticism and poetry from 1800 onwards. Poe’s ‘Philosophy’ directly contests this understanding of the nature of poetry by explicitly rejecting the self-representation of poets who ‘prefer having it understood that they compose by a species of fine frenzy’. Instead, he offers us a ‘peep behind the scenes’ into the workshop of the poet, a view of the ‘painful erasures and interpolations – in a word, at the wheels and pinions’ of the poetic machinery.

The novelty of ‘Mr Poe’s “Raven”’, having made celebrated appearances in magazines and newspapers throughout the transatlantic entertainment circuit, was enhanced by its inventor’s exposure in the ‘Philosophy of composition’ of the novel principles of its construction. The open-handed demonstration of the modus operandi of ‘The raven’ thus places Poe in a position directly analogous to that of the exhibitor of the chess-playing Turk. Von Kempelen blithely dismissed the automaton as ‘a very ordinary piece of mechanism – a bagatelle whose effects appeared so marvellous only from the boldness of conception, and the fortunate choice of the methods adopted for promoting the illusion’. Maelzel, presenting this marvel to the audiences of England and America, offered the audience the chance to inspect the amazing machine, opening its drawers one by one to show that there was nothing inside but a complex system of gears and pinions. In his demolition of the ‘chess-player’, Poe argued that Maelzel took great lengths to make the machine appear less lifelike than his abilities allowed; every instance where mechanism was emphasized alerted the undupable analyst to the human agent adeptly hidden inside the machine.

The ‘Philosophy of composition’ can thus be seen as Poe’s attempt, in the face of America’s technological fetishism, to astound the machine-hungry crowds and critics by presenting himself explicitly as a poetry-automaton. The ‘philosophy’ challenges the reader to consider the human agent in even its ‘dynamic’, artistic faculties, as ‘pure machine’. The parallelism between this article and ‘Maelzel’, however, suggests that to mistake the action of the automaton for that of the dwarf inside is to be duped by the ingeniously manipulated spectacle.

Or is it? The romantic hears from behind the mirrors the breathing of a human frantically hiding himself from sight. Such is the position of Baudelaire, for whom the ‘Philosophy’ is a minor hypocrisy, made pardonable by reading into it a satirical intent.

81 Hoffman, op. cit. (11), is not the first to approach ‘The philosophy of composition’ ‘to determine – once and for all!!’ – Poe’s intention.
85 Harrison, op. cit. (12), xiv, 11; Brewster, op. cit. (63), 321.
86 Baudelaire, op. cit. (10), 637: ‘This article seemed to me tainted with a light impertinence.’
But against this view of Poe as the original and inspired artist, we have legions of reviewers who have unmasked Poe as either a methodical thief, a mechanic, or a machine tout court, as in Marie Bonaparte’s psychoanalytic depiction of Poe as an oedipal automaton: ‘The monstrous repetition of the same theme, as of its expression, enables us to feel how crushingly Poe’s soul, his life and work, were dominated by the compulsion to repetition.’

Critics who have ‘debunked’ Poe by uncovering the underlying cause of his productions as a mechanistic bricolage, as much as those who privilege his works as a fundamentally ‘human’ response to an increasingly inhuman world, have taken the treasure buried and cryptically mapped for them by Poe as their own discovery. As he put it, ‘Where is the ingenuity of unravelling a web which you yourself have woven for the express purpose of unravelling?’

The apparently automatic recurrence of themes, the compulsive plagiarism, and the assemblage of his texts from varied sources and influences were as much a part of his project for the machinic construction of a literary identity as were the fabricated autobiographies and the Byronic daguerreotypes by which he made himself known. Poe’s obsessively shifting authorial position leaves unanswered the possibility that the hidden dwarf responsible for the works collected under his name might himself be an automaton.

The tales, poems and essays of Edgar Allan Poe continually direct the reader’s attention to the detailed mechanics of reason to divert it from more powerful, incomprehensible forces undermining the Enlightenment vision of a logically reducible universe. Yet Poe’s reaction to mechanical philosophies and industrialization is not that of the Romantic. In Poe’s complex metaphorics the irreducible agent responsible for the actions visible on the outer surface of seemingly rational structures is itself machinic. Further analysis would show this structure of shifting screens of the natural and the mechanized, of chaos and control, reproduced in, for instance, ‘The tell-tale heart’, where the narrator’s efforts to present himself as the consummate rational strategist intensify the effect produced by his insane acts and perceptions; the beating of the victim’s heart echoes the incessant ticking of the cosmological watchworks. Likewise in Eureka the model of a mechanical and logically accessible cosmos offered by Newton, Laplace and Nichol gives way to an apocalypse of man’s dissolution into a divine, unreasoning, yet ultimately mechanized infinity. Like ‘The balloon hoax’ and the mesmeric tales, Eureka can be seen at once as a complicated Enlightenment-style satire of his science-obsessed audience, as an argument for new avenues and modes of scientific investigation, and as an act of sabotage within the social machinery. By focusing on the production of effects as the defining relation between the author and the reader, a relation mediated by the paradigm of the machine at every stage, Poe’s works demonstrate, enact and redirect the machine’s capacity to incite terror and wonder.