

THE ALGORITHMIC IMAGINATION:

POTENTIAL LITERATURE AND NEW MEDIA

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INTRODUCTION

Imagine a text that can be summed up in a sentence. Imagine a list, for example, that contains everything the author ate and drank for a year, organized by food group and tabulated by quantity, down to the last bottle of Calvados or raspberry sorbet. Imagine a story about sixty-four cities – all of them imaginary (and suspiciously alike) – that together form the grid of an elaborate game of chess. Imagine a book of poetry in which each chapter uses only a single English vowel, weaving a perfectly grammatical epic out of words like parallax, belvedere, gingivitis, or monochord. Imagine a different sort of list, this time alphabetical, that contains every English-language translation of the first tercet of Dante's Commedia, a list whose digressions and repetitions mirror the pilgrim's bewilderment at finding himself lost, again, in the middle of a dark wood. Imagine a book that takes Shakespeare's Sonnets and erases all but a handful of words, forging a new poem out of those that remain, enclosed within the whitespace left by those that do not. Imagine a text – to push the hyperbole a little further – you can grasp purely as a concept, a poem you can deduce from its title, a book you can enjoy without turning a single page. I say hyperbole because all of the examples described above – Georges Perec's "Tentative d'inventaire des aliments liquides et solides que j'ai ingurgité au cours de l'année mil neuf cent soixante-quatorze," Italo Calvino's Città invisibili, Christian Bök's Eunoia, Caroline Bergvall's Via, and Jen Bervin's Nets – are also brilliant works of literature that invite and reward close reading, pushing back against the constraints that govern their composition.

I begin by playing devil's advocate, however, indulging what Cleanth Brooks might call "the heresy of paraphrase" (192), in order to gesture towards the powerful mythos that surrounds writing of this kind: the notion that a literary work could, in theory, be reduced to an abstraction, an epitome so minimal and attenuated, so bereft of rhetorical artifice or affective texture, that it might as well not be read (or written) at all. Hyperbolic as it may be, this vision of a literature *in potentia*, appealing to the mind more than to the senses, to a "thinkership" more than to a "readership," continues to animate pressing debates in poetry studies and elsewhere, as the following pages will make clear, around the perceived waning of literary value and readerly attention in our post-medium age.³

As you may already have surmised, I owe the phrase *potential literature* to the Oulipo, or Ouvroir de Littérature Potentielle, a group of writers and mathematicians (among other eclectic trades) founded in 1960 by Raymond Queneau and François le Lionnais. I will say more about the Oulipo in a moment, although this dissertation is focused less on the group itself (which remains, despite its notoriety, more than a little reclusive) than on the diverse works it has inspired. I use *potential literature* (uncapitalized, unabbreviated) to encompass a corpus that is not, for the most part, officially sanctioned by the Oulipo, although certainly influenced by its signature techniques and by the work of its most accomplished members. I draw upon an archive that spans two continents and three languages – from the historical origins of the Oulipo in postwar Europe (with a focus on the late 1970s and early 1980s, when Perec and Calvino wrote their most celebrated novels) to the work of three contemporary poets, who, at the turn of the millennium, put

the practice of *écriture sous contrainte* into dialogue with new forms and new genres occasioned by the rise of a rapidly digitizing culture. By reading these two moments alongside each other, I hope to show how potential literature – often dismissed as a marginal or even esoteric practice, insulated from the historical and social entanglements of other postwar avant-gardes – is deeply responsive to the new media of its time. From Calvino's vision of an epigrammatic literature composed of "weightless bits" to Bervin's conceit of poetry as a form of artificial memory that can be endlessly erased and overwritten (Lezioni 10), this constellation of writers forges a powerful analogy between digital algorithms and literary constraints, addressing an epoch in which emergent forms of artificial intelligence seem poised to automate every facet of human endeavor.⁴ To write under constraint is to embody a machine, subjecting oneself to procedures and routines that a robot might conceivably perform instead: Perec's enumeration of his annual diet, for example, insists upon tabulating the exact quantity of each foodstuff he ingests, a practice that anticipates the modern use of biosensors (on the FitBit or Apple Watch, for example) to log a user's every heartbeat or footfall, feeding a biopolitical regime that aggregates such data on a global scale in order to measure, optimize, and thereby govern the life of populations. By resituating this algorithmic logic within the domain of literature, however, and by carrying out programmatic tasks by hand, these writers also resist the lure of the digital by revealing its capacity for failure and error: Perec thwarts the veracity of his food diary at every turn by allowing taste – the most proximal of senses, the most bodily, and therefore the least susceptible to abstraction – to influence his tally. (After all, how can you reliably count how many bottles of wine you have drunk, if you are already drunk on wine?) Against the commonplace view of constraint-based writing as a cerebral or disembodied practice (a perfect compliment, some critics argue, to the sense of disaffected mastery and analytical poise endemic to contemporary techno-capitalism),⁵ my readings suggest on the contrary that potential literature, at least in the examples gathered here, foregrounds the embodied act of writing and its recalcitrance to routinization. In various genres and by various means, all of these writers resist the power of constraints to quantify the sensible world and regulate the bodies that inhabit it. That the dissertation begins with taste is hardly incidental: all of the texts in question, despite their commitment to procedural abstraction, appeal viscerally to the reader's senses. From Calvino's baroque ekphrases of miniature objects to the monovalic feasts that embellish the chapters of *Eunoia*, the abundance of the sensible world refuses to bow to the laws of abstraction, striving as they do, with tireless precision, to reduce lived experience to computable data.

Read this way, potential literature offers a new perspective on some of the broader quandaries that beset the humanities in the digital age: How can the literary and the aesthetic – which place such a high value on contingency and indeterminacy, on those qualities of experience that no governing concept or analytical procedure can reduce to a definitive summary – endure in a world that is being programmed to bits? What forms of expression are still possible within a system that tracks even the most minute details of quotidian life, syncopating the movements of bodies and affects within a clockwork that leaves no room for error? Is our only recourse to embrace this algorithmic logic, as some

digital humanists argue, harnessing the power of computers to summarize vast corpora of texts into graphs, maps, and trees that can be scanned at a glance? Potential literature, I argue, offers a less dystopian strategy: if new media strive to model sensible experience through statistical aggregates, these writers reverse the process, making the abstract structures at the heart of computation – the list, the set, the grid, the database – into rhetorical and literary forms. Forms, moreover, that are prone to failure: lists that overflow their bounds, catalogues that redound and digress, accrue here an affective charge, an aesthetic texture, that runs against the grain of the systems they are designed to exemplify. Potential literature opposes the digital fantasy of a wholly dematerialized world – where all our data dwell eternally in the cloud – by bending the rigid protocols of computation to the swerves and detours of literary expression.

The notion that *écriture sous contrainte* offers a critical response to the threat of demediation, however, is not entirely new, and to grasp the longer arc of this narrative it is worth turning briefly to the origins of the Oulipo in postwar France – to the restaurant Cerisy-la-Salle, to be precise, where, in November 1960, the group convened its inaugural session. Originally named the Séminaire de Littérature Expérimentale (a subcommittee of the Collège de Pataphysique), the founding members swiftly took leave of this umbrella organization and dropped the term *Séminaire* (with its scholastic overtones, deemed to be too sterile, too *structuralist*) by their second meeting. (Queneau was the official scribe of Alexandre Kojève's seminars on Hegel – in the company of Georges Batailles, Maurice Merleau-Ponty, and Jacques Lacan – although he later sought to distance himself from the

dominant strands of postwar French theory. In the Second Manifesto, François le Lionnais urges the reader not to confuse the group's penchant for literary structures with structuralism proper - "a term that many of us consider with circumspection" [29].) And so the Ouvroir de Littérature Potentielle was born. Oulipo for short, giving each syllable of its triadic structure an equal semantic weight. *Ouvroir*: not just a workshop, but a workroom – originally denoting a wing of a convent where nuns assemble to do needlework, a sewing circle, a place of handicraft. (In his introduction to the Oulipo Primer, Warren Motte contrasts the word with oeuvre, which implies canonicity and consecration. The work of the *ouvroir* is more collective than individual, more artisanal than artistic, more laborious than inspired [9-10]). Literature: although the Oulipo has spawned numerous analogues in other media and other genres – the Oucuipo, for example, is the Workshop of Potential Cuisine - the group began as an exploration of the potentiality specific to literary and linguistic structures, from minute permutations of the alphabetic code (anagrams, lipograms, palindromes) to the epic scale of encyclopedic novels whose plots derive from the rules of chess. (Two such novels – Calvino's Città invisibili and Perec's La vie mode d'emploi – make an appearance in this dissertation.) The fact that literary texts are made primarily of letters (in the European tradition, at least) - and therefore constitute a discrete sequence that can be subdivided, inverted, and freely rearranged – inspires the early efforts of the Oulipo to formalize natural language and impose constraints that make literary texts precisely quantifiable: Perec's 1969 novel La Disparition, for example, entirely omits words that contain the letter e - a fact that either a

simple algorithm or an assiduous human could verify beyond doubt. (That early reviews overlook this obvious omission testifies to the masterful subtlety with which Perec carries out his constraint.) At the same time, the existing codification of literary (and especially poetic) genres, many of them deemed obsolete – the villanelle, the rondeau, the sonnet, among others – serves to legitimize the Oulipian project of reviving old forms and devising new ones.

This is the essential vocation of the group: to discover and to invent (*inventio*: to find again) constraints that can be used to craft literary texts – texts that would otherwise be unthinkable. And here we arrive at the third term, one that echoes throughout the Oulipo archive and proves the most difficult to pin down, a sort of *point de capiton* that sutures the Oulipo together and yet itself remains elusive. The OED defines *potential* as "[p]ossible as opposed to actual; having or showing the capacity to develop into something in the future; latent; prospective." Derived from the Latin *potentia* – force, power, ability (although also, in ecclesiastical Latin, a crutch, a prosthesis), potential in this sense describes what something can do – whatever is possible, capacious, eventual – and directs itself toward a future when this latent possibility will finally be actualized. In this sense, potential is powerful, even violent – a taut bow, an unsprung trap – that befits its imperial etymon, "[p]ossessing potency or power; potent, powerful, mighty, strong; commanding." But potential is also the absence of actuality. What is *possible* is not yet actual; what is latent is not yet manifest. Without this latency, potential is impotent: the sprung trap is no longer a threat. Potential is the abyss between capacity and act, between what something

can do or be and the doing or being itself. Potential is therefore also the capacity *not* to do or *not* to be, to defer action indefinitely, remaining forever unactualized. To be potential is to be – at least for the time being – inactive, reticent, dormant.⁸

In his entry on *potential* in the *Oulipo Compendium*, Harry Matthews quotes the above definition from the OED, adding his own gloss:

The last word of *Ouvroir de littérature potentielle* defines the specificity of the Oulipo. From its beginnings the group has insisted on the distinction between "created creations" (*créations créés*) and "creations that create" (*créations créantes*), to the benefit of the latter: it has been concerned not with literary works but with procedures and structures capable of producing them. When the first sonnet was written almost a thousand years ago, what counted most was not the poem itself but a new potentiality of future poems. Such potentialities are what the Oulipo invents or discovers. ("potential")

Like many of his fellow Oulipians, Matthews emphasizes the generative potential of constraints, their capacity to engender new poems in a yet undefined future. Whether focused on invention or discovery – what Le Lionnais calls the "synthetic" and the "analytic" modes of the Oulipo, proposing new constraints and reviving old ones – the impetus of the group is essentially productive and creative, furnishing writers with tools for constructing truly original works of literature (a rarity, the Oulipians often lament, in a literary world that seems to place little value on formal competence). At the core of this definition is the distinction between *créations créantes* and *créations créés*, between potential literature (or constraints that *could* be used to write literature) and literature proper (including literary texts written under constraint). According to its founders, the Oulipo *stricto sensu* concerns only the former, relegating the latter to what Warren Motte

calls (echoing Le Lionnais) the "limbo of the 'applied Oulipo'" ("Introduction" 12).

(Although this limbo is also home to the group's most distinguished works: the prizewinning novels of Perec and Calvino avowedly belong to the realm of applied constraint, not to the realm of pure potential. Had the Oulipo insisted too rigidly upon this technicality, refusing to count such works as its own, it may well have perished in obscurity.) Queneau echoes this distinction in his definition of potential:

The word 'potential' concerns the very nature of literature, that is, fundamentally it's less a question of literature strictly speaking than of supplying forms for the good use one can make of literature. We call potential literature the search for new forms and structures which may be used by writers in any way they see fit. (ctd. in Arnaud xiii)

Even as he distinguishes potential literature from "literature strictly speaking," Queneau suggests that its aim consists of "supplying forms," like moulds to be filled, for writers to use "in any way they see fit." Constraints serve "the good use one can make of literature," and potential – for all of its associations with absence and deferral – exists to be actualized. At the same time, however, Queneau gestures towards the obverse sense of the word by implying that potential literature is not properly literature at all, only something that could – in the right circumstances, in the right hands – *become* literature. Matthews, for his part, cedes that this becoming might never take place, that a work of potential literature might remain unactualized, unwritten: the isopangram, he observes, is straightforward enough – a sentence that uses each of the twenty-six letters of the alphabet only once – and yet no poet to date has succeeded in composing one (213). Other constraints have a vanishingly short half-life: Le Lionnais' proposal for a one-letter

poem can be repeated only twenty-six times. Despite their emphasis on literary creation, then, these definitions suggest that potential literature keeps something in reserve, that its potential is never completely (or irreversibly) actualized. It is for this reason, as David Levin Becker argues, that "no static definition of potential literature exists: it remains an ineffable ideal toward which members are free to work as they see fit, each beholden to his or her own fascinations and bugbears and biases" (23).

Among the many divergent attempts to define and delimit the Oulipo, however, there is one exemplary text that appears again and again – even though its own literary potential remains radically unrealized. Published by Éditions Gallimard in 1961, Queneau's *Cent mille milliards de poèmes* is widely credited as the inaugural Oulipian text, one that, like its many successors, at first seems disarmingly simple: a sequence of ten sonnets, composed in a flippant yet charming sort of doggrel. Here is the first quatrain of the first sonnet (with an English translation by Stanley Chapman):

Le roi de la pampa retourne sa chemise Pour la mettre à sécher aux cornes des taureaux Le cornedbeef en boîte empeste la remise Et fermentent de même et les cuirs et les peaux

Don Pedro from his shirt has washed the fleas The bull's horns ought to dry it like a bone Old corned-beef's rusty armor spreads disease That suede ferments is not at all well known (1-4)

Between each of these lines is a dotted border, marked with a scissors glyph where the page is to be cut apart. With the loose lines still attached to the spine, the *Poèmes* become a sort of flip book that invites readers to construct their own sonnets, choosing one line at

a time from among ten possible variants. (Queneau credits the idea to children's books that allow their readers to assemble monsters by flipping segmented pages – selecting a head, a torso, and a pair of legs from the bodies of different imaginary creatures ["Poems" 14].) No matter how readers recombine the composite lines, the rules of the Petrarchan sonnet – meter, rhyme scheme, even, to some degree, the delicate balance between octet and sestet – remain intact (as do the rules of French grammar). This structure makes the *Poèmes* doubly potential: first, in the sense that the concept precedes and constrains the writing itself (a book of ten sonnets whose lines can all be interchanged); and second, in the sense that the book is, in the words of Calvino, "a machine for making sonnets" (Literature Machine 12), capable of generating a vast quantity of possible sonnets – 10¹⁴, to be exact, one hundred trillion (or, as in the French title, one hundred thousand billion). Queneau calculates that even the most dedicated bookworm – at the rate of one sonnet a minute, eight hours a day, two hundred days a year – would require almost two hundred million centuries to read them all.⁹ Le Lionnais expands upon this sense of enormity in his postface to the work:

Thanks to [its] technical superiority, the work you are holding in your hands represents, itself alone, a quantity of text far greater than everything man has written since the invention of writing, including popular novels, business letters, diplomatic correspondence, private mail, rough drafts thrown into the wastebasket, and graffiti. (ctd. in Motte, "Introduction" 3)

With a nod to Borges' Library of Babel (structured by an analogous principle, containing every possible combination of the letters of the alphabet), Le Lionnais discerns in the *Poèmes* a form of information overload, a sublime excess of textual data that – like other

mass media (and even more voluminous) – threatens to overwhelm our readerly senses. That this vast archive fits comfortably into the reader's hands – a "technical superiority," as Le Lionnais puts it – anticipates our own digital moment when just about "everything man has written since the invention of writing" can indeed be squeezed onto a pocketsized device. Like digital text (which is typically stored as a sequence of 8-bit Unicode characters, a binary code that can be endlessly permuted and recombined), the *Poèmes* achieves its peculiar density by atomizing the sonnet into its component lines, a set of discrete units whose possible combinations exceed by many orders of magnitude the space they occupy in their physical medium. Like an anagram (or Borges' Library, for that matter), the potentiality of the *Poèmes* emerges in part from this combinatoric structure, whose minimal units – letters for Borges, lines for Queneau – already implicitly contain all their possible orderings. At the same time, however, this potential is fated to remain unrealized: no reader (no human reader, at least) could ever devour the work in its entirety. Queneau anticipates a post-human future when the efficiency of machine readers (already nascent in the early 1960s in the form of automated punchcards) threatens to render human reading obsolete – a future where text is produced and consumed on a radically inhuman scale. Le Lionnais suggests that this future is already here: the *Poèmes* enter into an assemblage of ephemeral texts that are both quotidian (graffiti, mail, crumpled drafts) and, by their very ubiquity, illegible - too numerous, too ordinary, to reward sustained attention.

It is for good reason, then, that the *Poèmes* frequently appear in scholarly histories of

new media. *The New Media Reader*, for example, reprints Queneau's work in a section entitled "Six Selections by the Oulipo," curated and prefaced by Nick Montfort. No stranger to constraints in his own work – Montfort is the author of *2002: A Palindrome Story*, which reads the same backwards and forwards – he prefaces the selection by observing how Oulipian texts often empower readers through a sense of combinatorial play:

The potential that lies within such an understanding of interactive experiences is a reconfiguration of the relationship between reader, author, and text. The playful construction within constraints that the Oulipo defined as the role of the author can become an activity extended to readers, who can take part in the interpretation, configuration, and construction of texts. (148)

The *Poèmes*, in particular, carry "the potential to define a new type of computer-mediated textuality, producing custom poems in ways that give the reader an enhanced role in the process of literary creation" (147). Montfort is not alone in reading Queneau's work as a precursor of digital textuality: his preface echoes the way Espen J. Aarseth, in his landmark study *Cybertext*, repeatedly cites the *Poèmes* as an example of "ergodic literature," where the reader plays a non-trivial role in the construction of the text – a predecessor, Aarseth argues, of "digital systems for information storage and retrieval" that allow text to be rapidly parsed and recombined (10). In line with this interpretation of potential literature as a practice of creative *reading*, Stephen Ramsay invokes the Oulipo as a model for his own theory of "algorithmic criticism" and its "emphasis on the liberating forces of (computationally enforced) constraint" (xi). He cites Queneau's *Poèmes* in order to show how forms of procedural reading might augment, rather than terminate, the

practices of heightened attention and sustained interpretation that distinguish hermeneutic criticism. The graphs generated by algorithmic reading are not essentially different from the less restrictive filters through which close readers view their objects of study (reading *for* rhyme or reading *for* plot), the result of layers of selective attention, reducing a multifaceted text to a manageable abstraction – an abstraction, however, that still invites and requires critical thought. For all of these scholars, then, the *Poèmes* serve as a paradigmatic example of the way that constraints, like algorithms, are as generative for readers as they are restrictive for writers, looking forward to a digital era when computational processes will inexorably shape and extend the ways we read and write.

In this way, Queneau's text also anticipates the work of contemporary anglophone poets – many of them inspired by the Oulipo – who turn to constraint-based writing as a response to the superabundance of information in the digital age. In *Nobody's Business*, for example, a study of twenty-first-century experimental poetry, Brian Reed observes that "writing today is strangely immaterial, able, as electronic bits, completely to transcend the limitations of space and time yet, as viewable text, absurdly weightless, mere dots of transient light that, once gone, leave no trace" (21). Today's poets, he argues, must contend with "the wholesale displacement of sensuous empirical reality by a more easily managed, dematerialized alternative" – that is, a universal medium in which text and image alike "are reducible to strings of ones and zeros ... susceptible to disappearing into an undifferentiated sea of digital bits" (25-6). Why is this sea of bits such a threat to poetry? Because poetry, the argument goes, thrives on the materiality of the signifier: whether

verbal or visual, rhetorical or graphic, the texture of the poem as a crafted artifact is what grounds its aesthetic value – as well as the disciplinary practice of close reading for which poetry often serves as an exemplary object. Poetry is unable to keep pace with a world in which texts, reduced to a common binary code, are seamlessly transmitted from medium to medium, platform to platform – without regard for their rhetorical texture or formal complexity.

Reed goes on to argue, however, that poets can and do resist the numbing effects of information overload. They "often confront the reality of the digitally enabled communications revolution by persisting in what they do not simply despite but because of its obsolescence" (2). Rather than seeking to nostalgically return to a pre-digital moment when poetic language is untainted by mass mediation – perhaps there has never been such a moment, at least not since the rise of print culture – many poets choose instead to strategically embrace the obsolescence of their genre, abandoning formal craft altogether and adopting the textureless language of the web as their own. By inscribing digital practices and digital texts within the form of the printed codex, such works of poetry "can gain critical purchase on the push toward mass digitization, the compulsion to reduce all communication to intangible, infinitely portable ones and zeros" (3). Reed gestures towards what we might call a new media poetics of the page (in distinction to born-digital genres like hypertext or electronic poetry) that defamiliarizes the experience of information overload by reframing banal data in and as poetry. Such works constitute what Scott Pound, in a PMLA article on Kenneth Goldsmith, calls "miniatures of a new

cultural ecology in which language-cum-information endlessly flows: abundant, redundant, cheap, and fertile" (328). There is a sort of chiasmus at work here: language is fertile and therefore abundant, multiplying without limit, but this abundance also makes it redundant, cheapened by its very plenitude. Poets call attention to this devaluing of poetic language by imitating its fluid logic, appropriating vast sums of unadulterated prose and reprinting them as books of poetry. Pound describes "a poetry that treats language like so much data or information, chosen for its quantitative rather than its qualitative allure, prized for its mass and availability rather than its originality or aesthetic value" (317-8). By presenting such redundant information as poetry, Pound suggests, these poets seek to rematerialize it, transforming virtual abundance into physical heft. Goldsmith's Day, for example, a transcription of an edition of the Sunday New York Times, impresses readers with its sheer bulk, comprising over eight hundred pages and weighing almost three pounds. In his preface to the anthology *Against Expression* (which he co-edited with Goldsmith), Craig Dworkin argues that such works of "conceptual poetry," taking after conceptual art, approach language as if it had "a certain opacity and heft" - "something to be digitally clicked and cut, physically moved and reframed, searched and sampled, and poured and pasted." "The most conceptual poetry," he contends, "is also some of the least abstract, and the guiding concept behind conceptual poetry may be the idea of language as quantifiable data" ("Echo" xxxvi). From this perspective, conceptualism renews our attention to the codex as a physical substrate, presenting remediated text as something to be looked at rather than looked through. Even as it claims to exchange its readership for a

thinkership (an axiom that the many close readings in my chapters will contest), conceptualism continues to approach poetry as an aesthetic object that can be apprehended and enjoyed through the senses, resisting the way that the digitization of culture threatens to make every medium – and print above all – obsolete.

A NOTE ON STRUCTURE

The dissertation falls into two major sections. I begin with two members of the historic Oulipo, Perec and Calvino, who joined the group in 1967 and 1973 respectively, although their affiliations with constraint-based writing stretch back to the early 1960s. Both of these authors are known primarily for their experimental fiction: Perec's La vie mode *d'emploi*, published in 1978, won the prestigious *Prix Médicis* the same year and is widely cited as his *chef d'oeuvre* – an encyclopedic novel about a Parisian apartment block, where the lives of its tenants intertwine according to the invisible logic of a knight's tour across a chessboard; Calvino's trilology of so-called hypernovels (Città invisibili [1972], Il castello dei destini incrociati [1979], and Se una notte d'inverno un viaggiatore [1973]), all of which William Weaver translated into English almost as quickly as they were published in Italian, established his reputation abroad as a pioneer of postmodern metafiction. I touch upon some of these works in this dissertation: several passages from La vie mode d'emploi compliment my reading of Perec's use of lists in his work – the novel is full of them, especially lists of food and drink – and the frame narrative of *Città invisibili*, also structured around a chessboard, is the focal point of my chapter on Calvino. Although

these texts make use of constraints – often subtle enough to escape the attention of their mainstream readers – they also deviate in revealing ways from the protocols that govern much Oulipian writing, and grow out of preoccupations that long predate official membership in the group. As second-generation Oulipians who had already established themselves as gifted writers (and, unlike some of their colleagues, had no formal training in mathematics), their contributions often focused less on theory – concocting new constraints and unearthing old ones – and more on composing original works, which, like all of the examples assembled here, warrant and reward our readerly attention with the adroitness of their execution. This is true even of the more programmatic texts in this assemblage: Perec's inventory of everything he ate and drank for a year, for example, despite its rigorous premise, turns out to be full of slippages and omissions that reveal, on closer inspection, a surprising resistance to its formal laws. Calvino, for his part, tempers his avowed and oft-criticized penchant for "geometric rationalism" by allowing a degree of multiplicity – the fine-grained details of an ekphrastic scene, for example – to overwhelm and undermine the Oulipian desire for order (*Six Memos* 70).

In the second half of the dissertation, I turn to the work of three poets – Christian Bök, Caroline Bergvall, and Jen Bervin – who adopt the practice of *écriture sous contrainte* under the rubric (or in the margins) of conceptual poetry. All three of the primary works considered here – *Eunoia*, "Via," and *Nets* – appear in *Against Expression* alongside formative texts by card-carrying Oulipians (Queneau, Perec, and Duchamp, among others). Conceptualism gives my three readings a common milieu, a unifying polemic

that at once rejects the confessional tenor of the mainstream lyric and embraces constraints and other procedural tactics as a way to tarry with (if not wholly to embrace) what Dworkin calls (after Lev Manovich) the "structural logic of the database" ("Poetry" 674). Like all polemics, however, conceptualism is an abstraction, serving to rally a diverse group of poets under a common banner (and against a common enemy). Although these poets share an urgent sense that poetry is under threat in the digital age (and, at the same time, that new media offer unprecedented opportunities for poetic innovation), they remain ambivalent toward the conceptualist project as a whole, especially its tendency to vilify the lyric as a merely confessional or expressivist mode. Read closely, these poems show how constraints can bring affect and embodiment to the fore - often through and against canonical poetic forms (Dante's Commedia and Shakespeare's Sonnets are the source texts for "Via" and *Nets*, respectively) without reducing affect to an epiphenomenon of personal expression. In these poems, rather, the lyric is a genre that resists any demand for calculable results: the impasses and suspensions of lyric time give readers room to breathe in a technical epoch that seeks to quantify and quantize every dimension of human life. Dismantling the opposition between lyric experience and programmatic constraint, these poems attest that even the most rigid systems and even the harshest restrictions leave room for error, contingency, and play.

I wish to emphasize at the outset that the chronological structure of this dissertation

– moving from postwar Europe to today – implies neither a direct path of influence nor a

teleological progression. To some degree, of course, Bök, Bergvall, and Bervin have the

benefit of reading and reflecting upon the work of their predecessors among the Oulipo. But the way that the legacy of that group, and Perec's work in particular, circulates among contemporary poets also makes it impossible to disassociate this prior moment from the concerns of the present – when, with the benefit of hindsight, the eclectic preoccupations of potential literature speak with renewed urgency to our own digital moment. I would probably not have chosen to begin with Perec's inventory of food and drink, for example, had I not first encountered this poem – something of an obscurity even to Perec enthusiasts - in Against Expression, framed as an example of conceptual poetry avant la lettre and a French analogue to similarly programmatic inventories composed at the same time, across the Atlantic, by conceptual artists like Sol Lewitt and Vito Acconci. The editors of the anthology, to their credit, never claim to legitimate their curatorial decisions through philological or biographical evidence: the texts reproduced in Against Expression appear like artworks in a gallery, drawn into a shared narrative by the gravity of their proximity. And without this editorial frame – a polemic, I argue in my first chapter, which overstates the impersonality and artifice of Perec's deeply idiosyncratic constraint – my argument would have nothing to push back against, no ground for dissensus. So although my readings of Perec and Calvino come first, they also come last (and were written last, at least in part) insofar as they begin with a question posed in the present – how can literature endure in a quantified world? – and delve into the past in order to discover new perspectives and unexpected swerves that throw our contemporary assumptions into disarray. This constellation of Oulipians and "para-Oulipians," as Jean-Jacques Poucel

fondly calls them,¹⁰ serves less to trace a prehistory of conceptual poetry – one in which the past serves only to legitimate the present, where poetry and technology march forward in lockstep – than to challenge the assumption that digitization is a uniquely contemporary (and therefore intractable) problem. My detour through the historic Oulipo, on the contrary, aims to unearth largely forgotten strategies for resisting the inflexible logic of computation, tracing the ways in which this potential for resistance continues to animate the poetry of the present.

1. SUBLIME DATA:

GEORGES PEREC AND THE VERTIGO OF LISTS

In his 1982 essay "Penser/Classer," the last piece he wrote before his death, Georges Perec offers the following reflection on the art of writing lists:

There are two contradictory temptations in any act of enumeration: the first is to cover EVERYTHING, the second is to leave something out all the same; the first temptation would seek to close the question forever, the second would leave it open; between the exhaustive and the incomplete, enumeration seems to me to be, prior to any sort of thought (and prior to any thought of sorting), the intrinsic mark of our need to name and to collect without which the world ("life") would be unmappable. (131)

A list that strives for completeness must also confront all the miscellaneous things that it cannot account for. The "unmappable" and the "incomplete" signify a negation that is also a surplus, disrupting the list from within and gesturing toward the world without, a world that is too capacious and too chaotic to be subsumed under an abstract rubric. If enumeration gives rise to "ineffable joys," that is because the list conceals an abundance that cannot be collected or named, even if "our need to name and to collect" carries the force of an obligation.

The word *enumeration* itself exemplifies this problem. Derived from medieval rhetoric and negative theology, the trope of *enumeratio* involves composing a deliberately incoherent list in order to evoke the unnameable attributes of God. From the sixteenth century onwards, as Christopher Johnson observes, *enumeratio* begins to register a waning belief in the power of analogy to structure our knowledge of the world. The

redundancies and digressions of the list serve less to instruct and delight than to dramatize its own failure to achieve closure:

[W]hen enumeration, as is increasingly the case in the late Renaissance, becomes more disjunctive than conjunctive, when the semantic elements it enlists are divergent or lack a stable conceptual frame, the impression is created that the world's many parts and attributes are fragmented, discontinuous, that the writer's perception of these parts is chaotic, aporetic, or that the *division* or analysis necessary for abstract thought, deductive certainty, is impossible. (1106)

Johnson goes on to argue, however, that the impossibility of summing up the world itself becomes a powerful theme of enumeration, reflecting upon the loss of the ordered cosmos is once served to praise. The list registers "that language (*verba*) has failed to furnish that definitive, supplementary part [which would make the list complete], and that this failure is now itself the subject, the matter (res) at hand" (1098). In this sense, the excessive copia of enumeration acquires a generative force, a force that is both redundant (from the Latin redundare, to surge again) and abundant (abundare, to overflow): "Rhetorical enumeration is redundant in the original sense of the word: it provides the necessary, material abundance out of which new thinking might emerge" (1111). The abundance of the list, capable of inciting new forms of thought through redundancy and supplementation, is closely tied to its paratactic structure, its omission of conjunctions or other connective tissue that would ossify its elements into a taxonomic order. Johnson draws upon Theodore Adorno's argument that parataxis, in the poetry of Friedrich Hölderlin, produces "artificial disturbances that evade the logical hierarchy of a subordinating system" (131): enumeration, for Johnson, is paratactic in its tendency "to

spurn the epistemological comforts of axioms and concepts, preferring instead to linger in the material precincts of language, where multiplicity and contingency can be best experienced, catalogued, and often given metonymic order" (1098). Although he leaves open the question of whether enumeration constitutes a properly transhistorical genre, Johnson mentions the "experiments of the OULIPO" as one of the many "verse and prose forms that enumerate conjunctively, disjunctively, paratactically, hypotactically, mechanically, or haphazardly," gesturing towards a more capacious entanglement between Oulipian constraints and the enumerative tradition that my own reading of Perec will explore in more depth (1105).

Beyond its use as a rhetorical trope, enumeration is etymologically related to number: to enumerate is also to count. The OED offers four definitions:

- 1. The action of ascertaining the number of something; *esp.* the taking a census of population; a census.
- 2. a. The action of specifying seriatim, as in a list or catalogue.
- 3. b. *concrete*. A catalogue, list.
- 4. *Rhetoric* transl. Latin *enumeratio*: A recapitulation, in the peroration, of the heads of an argument. ("enumeration")

In many programming languages – a domain not covered by the OED entry – *enumeration* also denotes a method of assigning related names to a set of integer values and, less commonly, as a function that loops through a data collection by returning each of its members as an index-value pair. All of these definitions share an emphasis on the inherently serial, iterative, and quantitative character of enumeration, requiring its operator (whether human or machine) to collect, tally, epitomize, or otherwise reduce an

assortment of items to a linear series or finite sum. This sense of enumeration as a mode of counting stretches back to the rhetorical origins of the word: as Johnson observes, Renaissance poets and rhetoricians frequently draw comparisons between metrical verse and empirical measurement, two complimentary ways of comprehending the world by number. With this analogy in mind, he asks what happens to rhetorical enumeration when all fields of knowledge, not only mathematics, are increasingly understood in quantitative terms: "[H]ow does enumeration, not of numbers, but of words and things function in an epoch when quantification comes to dominate the emerging episteme?" (1105) Although the epoch in question is the late Renaissance and the Baroque, Johnson's query resonates far beyond those periods - as his allusions to Hölderlin, Beckett, and the Oulipo suggest – and speaks with particular urgency to a digital milieu in which the distinction between the enumeration of numbers and the enumeration of things can no longer be taken for granted. In *Digital Memory and the Archive*, Wolfgang Ernst takes up this connection between list-making and computation in a chapter on the intertwined etymologies of the German words for telling and counting (zählen und erzählen): "Between the cultural practices of telling and counting, one finds both an affinity and a disjunction; narration and the numerical code can be seen as functions of alternating conditions of the media. The numerical order, the basis of digital technologies, has always already been performed as a cultural practice before becoming technically materialized." (147). Like other verbs that bridge the numeric and the rhetorical – such as *connote* (whose original connotation, Ernst observes, is both "telling" and "mathematical counting

in discrete leaps" [148]) or the minimal pair of *count* and *recount* (or the French *compter* and *conter*) – the verb *erzählen* encodes a historical connection between the literal and the numeric: "To tell, we learn, as a transitive verb, means not only 'to give a live account in speech or writing of events or facts' (that is, to tell a story) but also to count things' (to tell a rosary, for example). The very nature of digital operations and telling thus coincide" (147–8). Cognate with *zählen* (and Old English *talu*), the English *tell* is no less polysemic: one can tell a story, but also tell one thing from another ("the very nature of binary calculations," as Ernst observes [148]), or, with John Keats, feel the numbness of "the Beadsman's fingers, while he told / His rosary" (5-6).

These two exigencies of enumeration – the exhaustive and the incomplete, order and disorder – also animate the relatively sparse body of criticism on Perecquian lists. In an essay for a 2004 special issue of Yale French Studies (fittingly entitled "Pereckonings"), Bernard Magné explores Perec's use of the index as a form of "peretext," a concept that (with a nod to Gérard Genette, although *Paratext* itself makes no mention of indices) gives this otherwise supplemental genre "a role that goes well beyond its usual functions in order to make it into one of the text's major constituents, a place of scriptural maneuvers that contribute to the construction of meaning" (72). Through his readings of the indices to *Quel petit vélo* and *La Vie mode d'emploi*, Magné shows how the index, arguably the most banal and innocuous of genres, is riddled with hidden puzzles and oblique constraints that belie its merely indexical function:

Far from offering a convenient tool for understanding the story, the Perecquian index constitutes above all an opaque space, largely enigmatic, transforming the reader into a specialist of hermeneutics. It is not a means to locate, it is an invitation to search. Perhaps we should take this list for what it undoubtedly is, a type of enumerative poem whose signifiers are finally less important than its radical strangeness. (76)

On the one hand, Magné suggests, the index aims to exhaust its object, to reduce each of these novels to to a finite set of topics and to assign each topic a page number that points unambiguously to the corresponding passage. Such anchors or locators, as they are sometimes called, promise to deliver the reader swiftly to any topic she desires, and lend the index the sense of authority typically reserved for more empirical forms of tabular data. On the other hand, errors are inevitable: whether by authorial design or editorial blunder, the index to La Vie mode d'emploi occasionally confounds the reader with page numbers that lead nowhere, or at least not to the topic they index. Most striking among these misdirections is that of Perec's own name: the Livre de Poche edition of the novel omits the author from the copyright page (the only place, in the Hacette-POL edition, where the proper noun *Perec* appears) without updating the corresponding entry in the index, leaving a dead link that points, in turn, to the absence of the author. Such detours, Magné argues, transform the page numbers of the index into "markers that lead the reader astray into a space mined by the undecideable" (87). Undecideable because, if even such a reliable apparatus as the index proves fallible, how can the reader decide what part of the text constitutes the fiction proper, and what part makes up its paratext? The resemblance between lists printed inside the novel and those printed as appendices makes it impossible to tell where the novel itself begins and ends, to delimit the text from its constitutive

outside.

By suggesting that the Perecquian index constitutes "a type of enumerative poem," Magné implies that the tension inherent in this genre – one that aims to supplement, organize, and explain, but ends up revealing "a radical strangeness" at the heart of the text - might also operate within the more explicitly literary forms of enumeration that Perec explores in his writing. In Constraining Chance, an incisive and capacious monograph on Perec, Alison James takes up this question (which Magné's brief and avowedly schematic essay leaves undecided) as part of her larger argument that Perec explores contingency and error in his work as a way of tempering the determinacy inherent in Oulipian forms. Resisting the temptation to read Perec's lists of things as a merely "sociological" critique of consumerist experience, she argues that "[a]lthough the openness of enumeration threatens the stability of the characters' worldview, it can be also be seen in positive terms as an acknowledgement of the infinite multiplicity of the real" (212). For James, the failure of the list to exhaustively capture its object is one way that Perec mediates between the Oulipian project of eliminating chance through programmatic constraints and a realist desire to register the complexity and contingency of lived experience:

Perec's own classifications – whether of cars, umbrellas, reading habits, or eyeglasses – might seem to be symptomatic of a "utopian" obsession with producing order and excluding chance. However, Perec's texts also undermine the notion of classification, suggesting that no ordering principle can ever completely account for the real – or rather, that too many organizing principles can be found or invented, none of which can be privileged. Perec's lists thus suggest the existence of a disorder more radical than the disorder of incompletion. (222)

It is because the world itself is fundamentally disordered, James suggests, that even the most exhaustive list cannot hope to capture it. She reads the list as one form in which chaos and order, chance and constraint, collide: "Understood in this context, the antichance of Oulipian constraints is only apparently at odds with Perec's fascination with the randomness of the infraordinary: constraints both incorporate and resist disorder, while acknolwedging that all order may be founded on chance – or vice versa" (224). James offers a compelling account of Perecquian enumeration that situates his otherwise eclectic use of lists within the context of his broader fascination with contingency, challenging the assumption (propagated by Oulipians as well as by their critics) that constraints, conceived as deterministic rules, serve only to insulate writing from the eventfulness of the world. On the contrary, James argues, the constraint implicit in enumeration – that an exhaustive list will organize its contents into a coherent system – ultimately founders when confronted with the multiplicity of the world it seeks to contain, because "no ordering principle can ever completely account for the real."

In what follows, I build upon this persuasive account (which focuses on Perec's most canonical works of fiction and accordingly draws primarily upon realist theories of description) by reading some of his more experimental and poetic lists alongside his critical reflections on list-making in "Penser/Classer." Perec's observation that enumeration mediates between the exhaustive and the incomplete, between the quantitative rigor of the list and its inconclusive form, resonates, I argue, with debates in media studies and the digital humanities around the question of how literature written for

the page might engage with (and to some extent resist) our increasingly digitized culture.

THE DATABASE SUBLIME

In a special issue of *PMLA* on the database as a literary genre, Edward Folsom invokes *Leaves of Grass* as a pre-digital example of information overload:

Anyone who has read one of Whitman's cascading catalogs knows this: they always indicate an endless database, suggest a process that could continue for a lifetime, hint at the massiveness of the database that comprises our sights and hearings and touches, each of which could be entered as a separate line of the poem. (1572)

Folsom goes on to suggest that such a "database does not handle completion well – it is voracious and thrives on revision, addition, and supplementation." Other contributors to the special issue echo this language of the endless and the incomplete. Meredith McGill observes that the database "holds out the promise of completeness" and yet also embodies "the open-endedness of the digital medium itself, a quality that points toward a utopian future in which archival scholarship is bound not by financial or physical constraints but by the imaginations of its creators and users" (1592). Jerome McGann contrasts the power of the database "to draw sharp, disambiguated distinctions" with the literary text that is "necessarily n-dimensional, protean, shifting," but adds that "works like poems and novels are already marked data … multiply coded" (1589–1).

Perhaps the most compelling response is from Katherine Hayles, who challenges Folsom's assertion (following Lev Manovich) that database and narrative are "natural enemies." On the contrary, she argues, they are "natural symbionts," casting narrative (and

the literary more broadly) as an elusive figure that the database depends upon but is unable to capture or exhaust. On the one hand, databases are "self-describing artifacts" governed by "formal properties of closure": they must articulate their values explicitly and unambiguously in order to reliably store information. On the other, narratives "gesture toward the inexplicable, the unspeakable, the ineffable," supplementing the rigor of data with "the unknown hovering beyond the brink of what can be classified or enumerated" (1605). Hayles associates this "unknown" with the inherent polyvalence of literary texts and their potential to afford a nearly endless array of possible readings. The ineffable here is not so much a specific mode of aesthetic experience, a moment when language strives to represent the supersensible by confessing the impossibility of doing so, than the concept of the literary as a disturbance within the formal logic of the database. Narrative and interpretation endure in the new millennium because they are supple enough to engage with forms that defy representation, not only forms that cannot be quantified as numeric data but also the unrepresentable excess of the database itself.

This tension between the ineffable and the digital echoes a broader concern among media theorists with what Alan Liu (after Julian Stallabrass) calls the "data sublime" (228). Liu draws upon both Kantian and Lyotardian conceptions of the sublime in order to describe the surfeit of information produced by postindustrial (and especially digital) culture, a surfeit that is too vast to be captured in a single image and yet which for just that reason has inspired countless attempts to depict it. Invoking Lyotard's definition of the postmodern sublime as what "puts forward the unpresentable in presentation itself," Liu

extends this definition to include the way that new media work to dissolve both "the substrate of a work and the bodily practices of the artisanal artist," so that the unrepresentable or "transcendental" character of disembodied data becomes the general condition of aesthetic practice in the digital age (235).

If data are unrepresentable, however, it is not just because they lack a proper medium, but also because the very concept of data denotes something that cannot be grasped by the senses. The word derives from a Latin participle meaning literally "the things having been given," a sense preserved by the French term les données. As Alexander Galloway observes, a datum is not simply a fact or measurement but rather a "natural gift" or "empirical trace" that is "not so much thrown into the world, but left over, bare, remaining after the tide of being recedes" (81). For this reason, data as such are unrepresentable: they have no pregiven form and must be shaped into information in order to become perceptible. Information is a process as much as a product: "the act of taking form or putting into form" (81). Since data are fundamentally mathematical values that lack any inherent or self-evident relation to the objects they measure, any representation of data reveals more about the procedure used to generate the representation than about the data itself. Visualizing data requires "a contingent leap from the mode of the mathematical to the mode of the visual," a leap made possible by artificial rules for converting abstract numbers into legible signs. For this reason, Galloway argues, every data visualization is "first and foremost a visualization of the conversation rules themselves, and only secondarily a visualization of the raw data" (83).

Galloway goes on to argue that the unrepresentability of data and its tendency to generate uniform images feeds into what Friedrich Kittler would call "convergence": the way in which new media appear to erase distinctions among media and medium-specific forms and genres by encoding diverse media (images, audio, film, text) as an undifferentiated stream of numeric data. Galloway puts the matter rather bluntly:

What are the aesthetic repercussions of these claims? One answer is that no poetics is possible in this uniform space. There is little differentiation at the level of formal analysis ... One can not talk about genre distinctions in this space, one can not talk about high culture versus low culture in this space, one can not talk about folk vernacular, nor about modernist spurs and other such tendencies. (85)

For Galloway, to align the unrepresentable with "aesthetic information," whose purpose is no longer to educate or communicate but to stultify observers with the vertigo of massively complex systems, is to nullify its power to estrange. If the mathematical sublime belittles our imagination by presenting a phenomenon so vast that we cannot apprehend it as a unified image, he argues that the graphs he cites do the opposite, reducing the unrepresentable surplus of the web to an infographic we can easily download and digest: "[E]very map of the Internet looks the same. Every visualization of the social graph looks the same. A word cloud equals a flow chart equals a map of the Internet. All operate within a single uniform set of aesthetic codes. The size of this aesthetic space is one" (85). Despite the axiomatic character of this claim (underscored by logical terms such as every, all, set, and equals), Galloway goes on to suggest more modestly that representations of enormous datasets all end up looking the same because they rely upon routine algorithms

and generic protocols that reveal more about the process used to generate a given image than the data from which it derives. In this view, images of data overload are not properly sublime at all: although their network graphs and particle clouds might dazzle viewers with their complexity, the forms they take are predetermined, and bear no signs of the sublime attempt, always destined to founder, to register traces of the unrepresentable, to give insensible data a perceptible form.

Galloway goes too far, however, in arguing that new media as such – not only visualizations of the web – banalize and homogenize aesthetic representation to the point where "no poetics is possible in this uniform space" (85). Citing the same passage, Patrick Jagoda observes that this claim "resembles the common critique (really, the truism) that realist representation fails to totally capture its object" (21). He goes on to argue that collections of data (specifically networks) take many diverse forms that invite close reading and medium-specific analysis (as well as receptiveness to analogies across media). The unrepresentable remains an integral concept for understanding new media and one that is irreducible to its use in network graphs that aestheticize data into a static image. Liu anticipates this position in his analysis of the data sublime: artists who strive to depict the nebulousness of disembodied information, to mediate demediation itself in the form of an image, are still constrained by the affordances of the media in which they work. One striking example is W. M. Turner's *Light and Color (Goethe's Theory)*, a painting of Moses writing the Pentateuch that figures the overflow of the divine word as a vortex of radiant light – or what Liu calls "a romantic prefiguration of the data pour":

Out of this data pour emerges what seems to be the first record of a transcendental database: an image of Moses writing the Pentateuch. Yet what necessary quantum of aesthetic experience, we may ask, is added by Turner's distinctively formal and material signatures – his rough yet limpid handling of oils and his very imposition of the vortex form? (229)

Liu leaves this question open, turning swiftly from Turner to a series of contemporary artworks that more explicitly address the theme of "data transcendence" (239). This romantic example, however, fortifies Liu's broader argument that art can only give form to formless information through and against the resistance inherent in its specific medium, which registers in turn, however obliquely, the signature style of an embodied artist. It is through the layered opacity of oil paint that Turner both obscures any perspectival lines that would yield an illusion of spatial depth and, at the same time, whorls the pastel colors of the image into a vortex that seems to emanate from, and revolve around, the solitary figure of Moses writing at its center. Shaped by and through the unique affordances of oil paint (and the "formal and material signatures" that it invites and permits), this painting differs radically from the cliché maps of the internet that Galloway cites as examples of the banality of new media. Liu argues, on the contrary, that attempts to represent the formlessness of data are rarely formless or homogenous in and of themselves, but rather emerge from (and give form to) "material embodiment – in the substrate of a work and the bodily practices of the artisanal artist both" (234-5). If aesthetic embodiment appears endangered or besieged in post-industrial culture, it endures, Liu argues, through the material practices of artists who register traces of what he calls the "ethos of the unknown," the ethos "of the unencoded, unstructured, unmanaged – in human

experience" (236). It is through heightened attentiveness to specific media and specific forms – and not by embracing their demediation – that, "[i]n our current age of knowledge work and total information," an "experience of the structurally unknowable can still be conveyed in the structured media of knowledge" (236).

THOUGHTS OF SORTS

How can the unknown endure in a quantified world? This is also the question posed by Perec in "Penser/Classer." Much as Whitman's epic catalogues offer literary scholars such as Folsom and Hayles a way to theorize the database through the lens of genre theory, Perec's reflections on enumeration shed new light on this debate by drawing rich analogies between language and computation, even though (or perhaps because) those analogies rarely move beyond the hypothetical. Like media theorists and digital humanists who query the uncertain future of literature in the new millennium, Perec turns to the figure of the unrepresentable as a way of tracing the intertwined fates of literary expression and quantitative data. If the joys of enumeration are indeed "ineffable," that is partly because enumeration is inseparable from the numeric, and numbers have the potential to reach unthinkable sums. The question then becomes: is thinking also a sort of counting, a type of sorting? In Perec's own gloss, the forward slash between penser and classer implies that the relation between thinking and sorting cannot itself be sorted out (an ambiguity ingeniously preserved by David Bellos's translation, "Thoughts of Sorts"). Must one think before one sorts? Or is sorting (images, words, thoughts) a prerequisite for thinking? To

think is itself to sort intuited objects under general concepts, to encapsulate and abstract. But what separates this sort of abstraction from more programmatic or procedural methods of organizing information? Is there a sort of thinking that is irreducible to the output of a thinking machine?¹²

One answer is that there are sorts of thoughts that cannot be sorted, and perhaps even ones that cannot be thought. Much as enumeration spans the abyss of the "unmappable" and the "incomplete," thinking must inevitably confront the "unthinkable":

It is as if the question prompted by the title, "Thoughts of Sorts / Sorts of Thoughts," questioned thinking and sorting in such a way as to make "thinking" unthinkable except in splinters, in dispersion, forever returning to the fragmentation it was supposed to try to put in order. (120)

The unthinkable embodies many of those values that Hayles associates with narrative and the literary: it is fragmentary, polyvalent, resistant to being classified under fixed categories or abstract concepts, and for that reason never merely exemplary. But rather than oppose the dispersive force of the unthinkable to the inflexible logic of taxonomy, Perec figures the unthinkable as a fold *within* the thinkable and the sortable. The sentence unravels like a möbius strip whose two sides share a continuous plane: the question of how to sort thoughts reveals thinking itself to be unthinkable (i.e. unclassifiable under the rubric of a determining concept) and, at the same time, implies that the unthinkable precedes and conditions the logical orders that try to assimilate it. Like Perec's concept of the "infra-ordinary," an imperceptible fabric that dwells in the interstices of lived experience, the unsortable is thoroughly intertwined with

the systems that we use to map and comprehend the world, even as it threatens their coherence. This is perhaps why Perec calls thinking unthinkable "except in splinters, in dispersion" (in the French: "sémiettant, se dispersant," literally what splits and disperses itself [150]): the attempt to systematize thought reveals the degree to which thought is already splintered and contradictory. Perec recounts how the essay emerged from an assemblage of disparate jottings:

What hove into my mind's eye were things all fuzzy and wavering, fleeting and unfinished, and in the end I decided to retain the perplexed and uncertain character of these shapeless scraps, to stop short of pretending to organize them into anything that might have a claim to the appearance (and the charm) of an article with a beginning, a middle, and an end. (120)

Constructed as a cluster of splintered thoughts, the essay performs its own argument that beneath the semblance of enumerative order lurks a fundamental disorder, or, as Perec puts it, "that thinking refers ultimately to the unthinking underneath it, and that's what's really filed away in well-sorted files, what they serve to mask, ferociously, is the unsortable, the unnameable, and the unsayable…" (121).

The essay itself is an unsortable collection of lists culled from diverse sources: grammar manuals and dictionaries (including a section on interjectives from "a rather poor crossword dictionary"), the Universal Decimal Classification, a catalogue of the 1900 Paris Exhibition, Sei Shonagan's eleventh-century *Pillow Book*, Borges's Chinese Encyclopedia, and novels by Jules Verne, Raymond Queneau, Harry Matthews, and Italo Calvino. A single letter marks each section of the essay but the order of the letters is not alphabetical, a system that Perec critiques (in Section L: "The Alphabet") for

"superimposing a hierarchy onto a sequence that is inert by definition" (126). Instead the sections take their order from the first sentence in Calvino's *If On A Winter's Night A Traveller* and, like the stories in that book, they could be reordered at random without making the text any less readable. Perec describes his process as "a matter of *montage*" – an apt metaphor both because he splices together disparate chunks of text ("notes scrawled on pads or loose sheets") and because the disjunctive structure produced by this method allows the examples to form their own series of "fortuitous encounters" (136). An essay about sorting that is nothing but unsorted fragments: the text exemplifies its own argument that literary enumeration, despite its ambition of forming a cohesive image of the world, ultimately dissolves into parataxis.

For Perec, one of the most perplexing examples of such "taxonomic vertigo" is the Dewey Decimal System. The DDS is a universal method for classifying books, encoding their primary topic as a three-digit arabic numeral and specifying subtopics with a series of fractional decimals. This system replaces an older library model that assigns books a fixed location in the stacks, usually following their order of acquisition. By contrast, the DDS gives each book a relative index and corresponding relative location that ties it to a stable yet flexible category. What makes such a system vertiginous is not just its dizzying scale but also its systematic reduction of things to numbers: a library is no longer a collection of objects but an array of indices that bear no resemblance to the things they index:

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By what sequence of miracles was it ever agreed, more or less all over the world, that
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668.184.2.099
refers to toilet soap (finishing processes), and 629.1.018-465
refers to ambulance sirens, whereas 621.3.027.23
621.436:384
616.24-002.5-084
796.54
913.15
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refer respectively to electrical tension under fifty volts, foreign trade in diesel engines, prophylactics for tuberculosis, camping, and the historical geography of China and Japan! (127)

Here vertigo is a matter of style as much as of quantity. Perec heightens our sense of bewilderment by translating this array of numbers into a catalogue of disconnected topics. Jumps in syntax are also jumps in scale: the apposition between the list of numbers and the list of things underscores the power of numeric abstraction to shrink-wrap objects of any size into a portable fraction. Although the first half of the sentence is conjunctive, joining examples with *and*, the examples quickly multiply to form disjunctive lists: the third example reads like an index to a library catalogue, and the final clause, glossing this example, forms a list that, with the exception of its final *and*, is largely asyndetic, omitting conjunctions among its disparate elements. To some extent, this is a side-effect of the syntactic rules governing the production of lists in English and French, where conjunctions are reserved for the final pair of items. In this context, however, the otherwise normative syntax of the list appears oddly disjunctive – both because it follows and comments upon an unintelligible block quote (which, although grammatical in the context of the sentence, nevertheless blockades and interrupts the flow of reading) and

because the elements of the list itself are radically incongruous. Linked only by nonsequiturs, they belie the promise, implicit in any list, that its members relate, if not directly to each other, than to some overarching category that justifies their inclusion and, by the same token, eliminates the need to use conjunctions (or other forms of connective tissue) to bind them all together. In contrast, Perec's list more closely resembles the randomaccess database it annotates: first used in івм's Fortran language in 1972, the commaseparated list is a common format for storing tabular data and is still widely used (with the official extension .csv, or "comma-separated value") in library databases today. It also appears in numerous programming languages as the default syntax for defining an array or a set, as in Swift: "An array literal is written as a list of values, separated by commas, surrounded by a pair of square brackets." (The items listed above, for example, can be expressed with the following literal: "["electrical tension under fifty volts", "foreign trade in diesel engines", "prophylactics for tuberculosis", "camping", "the historical geography of China and Japan"]" – a code snippet that, despite the brackets and quotation marks, is not significantly more telegraphic than Perec's own.) Whether composed for machine compilers or for human readers, the comma-separated list has the effect of abruptly suturing its elements together without explicitly subordinating them to a governing concept. Part of a broader strategy of parataxis in the essay (including the disruptive use of block quotes in the passage above), the list forges an analogy between the rhetorical art of enumeration – with its propensity to generate incongruent lists – and the indexical art of sorting: both express the vertigo of data by removing the connectives that would

otherwise shape that data into an intelligible form.

This vertigo of the index finds another rhetorical counterpart in the *etcetera*, a word that innocently conceals the unsorted surfeit that every list is compelled to exclude. Perec cautions against the abstraction of the etcetera even as he concedes its necessity:

nothing seems simpler than making a list, but in fact it's much more complicated than it seems: you always leave something out, you're tempted to write etc., but the whole point of an inventory is not to write etc. (14)

The etcetera guards against infinity while also conjuring up a hoard of unlisted things that remain barely concealed, waiting to spring into view. It is a sort of carte blanche, assuring the reader that, given sufficient time and space, the list would be complete. Confessing upfront to exclusions that can then be dismissed as negligible or irrelevant is an effective way to preempt our suspicion that something crucial has been omitted: the etcetera suggests that the elided information is accessible somewhere else, if only there were an interface capacious enough to represent it. Many of Perec's lists call attention to this elision. Consider, for example, a list of categories of animals that Perec claims to have culled from bureaucratic records (a response, he notes, to Borges's infamous taxonomy of impossible animals in "The Analytical Language of John Wilkins"):

A) animals on which bets are laid, B) animals which may not be hunted between 1 April and 15 September, C) beached whales, D) animals subject to quarantine on entry into France, E) animals in joint ownership, F) stuffed animals, G) et cetera*, H) animals which are carriers of leprosy, I) blind dogs, J) animals to which large estates have been bequeathed, K) animals which may be taken on board, L) lost dogs without collars, M) asses, N) mares thought to be gravid. (129-30)

The asterisk after "et cetera" marks a revealing footnote: "There's nothing intrinsically odd

about 'etc.'; it's just its position in the list that makes it seem bizarre" (129). ¹⁶ But that is precisely the point. The list relegates its own excess – what is too numerous to count or too random to sort – to this trailing delimiter that offers a semblance of closure, assuring us that we have read everything we need to know, that there is nothing more of import to tally. Shifting the etcetera to the middle of the list destroys this semblance. It is no longer a coda but an internal limit, a fold or *point de capiton* that reveals the incompleteness and incoherence of the set it sutures together. ¹⁷

ATTEMPT AT AN INVENTORY

Perec's work includes countless examples of lists that struggle with miscellaneous excess: all of the objects on his writing desk, everything he can see from a café window in central Paris, all the places has has slept. Undoubtedly the most bizarre of these experiments is his Rabelaisian catalogue of everything he ate and drank for a year. The title is itself a mouthful: "Attempt at an Inventory of the Liquid and Solid Foodstuffs Ingurgitated by Me in the Course of the Year Nineteen Hundred and Seventy-Four." An analog forerunner of the now almost ubiquitous practice of posting realtime images of meals to Instagram and Twitter, the inventory is one of Perec's many attempts to trace the infra-ordinary, the sensible fabric and granular texture of everyday life. In contrast to other texts in *L'infraordinaire* that deviate freely from the task of describing the everyday, "Inventory" is remarkably strict, comprising nothing but a list of food and drink loosely grouped by category. Imagine ten pages of paragraphs like this one:

Two Guéméné andouilles, one jellied andouillette, one Italian charcuterie, one cervelas sausage, four assorted charcuteries, one coppa, three pork platters, one figatelli, one foie gras, one fromage de tête, one boar's head, five Parma hams, eight pâtés, one duck pâté, one pâté de foie with truffles, one pâté en croûte, one pâté grand-mére, one thrush pâté, six pâtés des Landes, four brawns, one foie gras mousse, one pig's trotters, seven rillettes, one salami, two saucissons, one hot saucisson, one duck terrine, one chicken liver terrine. (244)

More interesting than what Perec ingurgitates (read: gargantuan portions of meat, cheese, and cake, and over a hundred bottles of wine and spirits) is how he tries to sort this gastronomic data into meaningful categories. Should a salad with crab and Roquefort be filed under salads, seafood, or cheese? (For Perec the answer almost always seems to be cheese. Yogurt, too, is apparently a kind of cheese.) Do fruity sweets count as fruit? Yes, especially if you only eat one piece of fresh fruit a year and need to bolster your Vitamin C intake with such healthy alternatives as "one pêce de vigne in syrup, one peaches in Sancerre, one bananas flambées." And what does it mean to eat one peaches or one bananas? Perec often uses the singular article to describe plural nouns ("one stuffed dates"), presumably because stuffed dates or bananas flambées count as a a single dish, albeit a dish whose size is left speciously ambiguous. He also mixes the general and the specific in ways that undermine the authority of his tally: how can one eat "five rabbits" and "two rabbits en gibelotte, one rabbit with noodles, one rabbit à la crème, three rabbits à la moutarde, one rabbit chausser, one rabbit à l'estragon, one rabbit à la tourangelle, three rabbits with plums"? Such redundancies dispel the illusion of rigor promised by the title. The inventory serves less as a culinary portrait than as a critical reflection upon its own enumerative method.¹⁸

The gap here between descriptive rigor and Perec's reluctant confessions (or calculated omissions) recalls a similar passage in *Life A User's Manual*, his encyclopedic novel about the tenants of a Parisian apartment block and the complex ways in which their lives intertwine. The novel abounds with lists, often in the form of block quotations, that disrupt the already digressive narrative even as they tell stories of their own, revealing subtle details about otherwise circumspect characters through the things they choose to inventory and preserve. One such enumerative portrait introduces the minor character of Beatrice Breidal, the elder of two teenage sisters who live with their grandmother, Madame de Beaumont, in a large flat on the second floor. In a parody of her namesake Beatrice Portinari, Dante's abstraction for perfect feminine beauty, Breidal is "constantly preoccupied by her weight" and subjects herself to a Spartan diet that, like Perec, she records in a diary "obviously kept for this purpose alone." Consulting her personal database, the *Complete Table of Energy Values of Customary Foods*, she draws up a list of each item together with its caloric value:

| Tea, no sugar, no milk o |) |
|--|------|
| One pineapple juice 6 | 66 |
| One yoghurt 6 | 60 |
| 3 rye biscuits 6 | 60 |
| Grated carrots 4 | 15 |
| Lamb cutlets (two) | 192 |
| Courgettes 3 | 35 |
| Goat cheese, fresh | 190 |
| Quinces 7 | 70 |
| Fish soup (without bread or garlic mayonnaise) 1 8 | 3o |
| Fresh sardines 2 | 240 |
| Cress and lime salad 6 | 66 |
| Saint-Nectaire 4 | 100 |
| Blueberry sorbet 1 | 110 |
| TOTAL 1 | ,714 |

But if the purpose of this diary is "obvious," an act of self-accounting legitimated by hard facts, such candor also serves to veil the countless repasts that go unmarked:

Despite the Saint-Nectaire, this analysis would be absolutely reasonable if it did not sin grievously by omission; to be sure, Anne has scrupulously entered all she ate for breakfast, lunch, and dinner, but she has taken no account at all of the forty or fifty furtive raids she made between meals on the fridge and the larder to try to calm her insatiable appetite ... In fact she is practically continuously nibbling something or other, and whilst she is now doing her self-consoling sum with her right hand, with her left hand she is gnawing a chicken leg. (203)

Raw data is an oxymoron, as Lisa Gitelman reminds us, and the data in this table is most certainly cooked. Each food is equated with its caloric value – rather than, say, its nutritional content or gustatory savor – a value that is itself abstracted from a statistical average. (Not all quinces, after all, are exactly seventy calories). But Beatrice's palate rebels against such abstractions: her nightly binges are the consequence less of her personal foibles than of the system's failure to account for the sensuous appeal of each food and its

claim on the human appetite. The discrepancy between *rillette pâté* (600) and *tea*, *no sugar*, *no milk* (0) is one of sensible quality as well as caloric quantity, the difference between an object of desire – singular, irreplaceable, affectively charged – and a countable sum that renders any food potentially equivalent to any other.

To sin grievously by omission: we might say the same of Perec's inventory, if the omission were not so self-consciously marked. The text includes not one but three lacunae, three etceteras, disguised under the rigor of algebraic variables: "n buffet froid" (102), "N café" (106), and "n vin divers" (106). A buffet, of course, is already an unspecified quantity of food, and n is the algebraic equivalent of all-you-can-eat. Stranger still are the wines: paired with the epithet *divers* (sometimes translated as "miscellaneous," although I prefer the archaism of John Sturrock's "n sundry wines," implying something that is sundered or set apart), ²⁰ the phrase is doubly ambiguous, refusing to specify not just how many but how many of what: glasses, bottles, cases? This ambiguity contrasts starkly with the wine list that precedes it, which meticulously records both variety and vintage:

Nine Bordeaux, one Bordeaux Clairet, one Lamarzelle '64, three Saint-Emilions, one Saint-Emilion '61, seven Château-la Pelleterie '70s, one Château-Canon '62, five Château-Négrits, one Lalande-de-Pomerol, one Lalande-de-Pomerol '67, one Médoc '64, six Margaux '62s, one Margaux '68, one Margaux '69, one Saint-Estèphe '61, one Saint-Julien '59. (248)

The two-digit year after each wine forms a sort of poetic refrain that harmonizes the list even as its achronological order breeds confusion. It is no less thorough than the ledger that keeps stock of the Altamont's cellar in *Life A User's Manual*: "a wine list in which

every bottle is entered by geographical region, name of grower, name of supplier, vintage, date of entry, optimal maturity date, and, where relevant, date of leaving," followed by a two-page deluge of just such oenological data (176). But Perec's own wine list seems ill-content to be reduced to a series of abstract figures. Shifting his attention from the orderly to the sundry, he echoes the moment in *Georgics* II when Virgil, after spending over two dozen lines describing nothing but vineyards, confesses that he cannot go on:

Non ego te, Dis et mensis accepta secundis, transierim, Rhodia, et tumidis, Bumaste, racemis. Sed neque quam multae species nec nomina quae sint, est numerus; neque enim numero conprendere refert.

Don't think I would omit the wine of Rhodes, fit for Gods and saved till last, or Bumastus with its lavish clusters. But there's no number for the sorts of wine nor names for each of them, and little to be gained by trying to concoct the list. (101–4)

Umberto Eco cites this passage in *The Infinity of Lists* as an example of "the topos of ineffability," the reduction of "something that is immensely large, or unknown" to "a specimen, example, or indication, leaving the reader to imagine the rest" (*The Infinity of Lists* 49). The overripe grapes form a fitting analogy for the poet's own excess, both truncated and extended *ad infinitum* by a negation. Perec amplifies the trope from the ineffable to the innumerable: not just too many to tell, but quite literally beyond count. "[N] sundry wines" gives the illusion of quantitative rigor but instead opens the floodgates to an endless binge, permitting any amount of wine to be smuggled into the list untabulated. The phrase recalls what Christopher Johnson describes as the inbuilt "redundancy" of enumeration: much as engineers add a similar or identical component to

any part of a complex machine that is likely to fail (n+1), poets and novelists in the baroque and neo-baroque tradition often compose hyperbolic lists that repeat previous elements for rhetorical effect. As the redundancies grow (n+3, n+4, etc.), the encyclopedic function of the list, its power to collect, order, and ratify information, threatens to dissolve into a string of unregulated particulars.²¹

The joke, of course, is that Perec is too blotto after drinking these sundry wines to accurately record their labels. Ian Jack suggests that *sundry* "presumably mean[s] the stuff that just arrives slyly at the table in a carafe, or the stuff that one is too drunk to remember drinking." The task of composing the inventory involves ingesting substances whose deleterious effects on human memory make this task impossible, a sort of self-defeating constraint. In this way, Perec stages a tension between visceral confession and clinical detachment: the fact that he is drinking these wines as he attempts to record them undermines his position as an impartial observer. This is an old quandary. In the Third *Critique*, Kant relegates the enjoyment of wine to the status of the merely "agreeable" [angenehm], a counterexample to the universal subjective validity of the beautiful:

[A person] is perfectly happy if, when he says that sparkling wine from the Canaries is agreeable, someone else should improve his expression and remind him that he should say "It is agreeable to me"; and this is so not only in the case of the taste of the tongue, palate, and throat, but also in the case of that which may be agreeable to someone's eyes and ears. (97)

As with so many of his examples, Kant's invocation of wine at the critical juncture in the text is hardly accidental. Wine is agreeable rather than beautiful not only because its enjoyment is a matter of personal taste, *merely* subjective rather than subjectively

universal, but also because the senses involved in its perception ("the tongue, palate, and throat") are more vulgar and proximal than the ears and the eyes. To judge wine means ingesting it into one's own body, abolishing the fragile distance between subject and object proper to disinterested aesthetic reflection. And wine itself dulls and perplexes our powers of judgement, making it more agreeable the more we drink.

In a similar way, the humor behind Perec's sundry wines lies in the gap between the aloofness implied by the catalogue form and the obvious impossibility of remaining distinct from or impartial towards the things we eat and drink. Everything listed is also ingested, making the cataloguer's own body as much a part of the list as the foodstuffs he ingurgitates. As with Beatrice Breidel, a failure of accounting betrays an incurable habit or insatiable appetite that is indifferent to the distinction between one portion and the next, an error in description that is also a confession of unmastered desire. What Craig Dworkin and Kenneth Goldsmith call "Perec's Rabelaisian list" unleashes a sense of *copia* no less monstrous than the one Christopher Johnson finds in *Gargantua and Pantragruel*:

To list for Rabelais is to ludically dissolve ossified categories and concepts in the face of more vital, contingent truths. It is to give voice to the dynamic profusion of material things and words, but especially to express, the undeniable, if irrational claims of the body." (1112)

But the confession is not without an air of calculation: Perec is suspiciously eager to confess his vices while staying circumspect about his virtues. He gobbles up a cornucopia of beef and pork but only one (unspecified) piece of fresh fruit. And besides an innumerable quantity of coffee ("*N* café"), the only nonalcoholic drinks can be counted on

one hand: a tisane and three Vichy waters. Such glut is less a matter of what he eats than of how he collects and organizes the data: the imbalance between booze and healthy drinks, for example, might look very different if he had decided to include tap water. It is as if the capacious form of the inventory demands an equally intemperate diet, even if the author must resort to hyperbole. Roland Barthes argues that taking pleasure in food above and beyond its function of sustaining life makes gastronomy perverse, and this perversion takes the form of an elaborate sequence (from the first whiff of a new dish to its lingering aftertaste) that memory prolongs indefinitely.²² If the list is a genre that tends toward excess, the food list redoubles that tendency by making excess its own visceral theme.

Like other Perecquian catalogues involving his body – places where he has slept, his movements through urban space – embodiment in this context has less to do with sensory experience than with data about the body. In another essay in *Penser/Classer*, Perec describes how he staves off his fear of "losing track of myself" by keeping a detailed log of "objective" experiences: "time of waking, timetable, journeys, purchases, progress in work (measured in lines or pages), people met or just seen, details of the evening meal I had eaten in this or that restaurant, books read, records listened to, films seen, etc" (51). If such timetables and biometrics threaten to make the body docile and governable, they also constitute a reparative practice that seeks to insulate the self from being reduced to a mere number.²³ Perec contrasts his method of logging the infra-ordinary with more sinister forms of enumeration: the death tolls published in weekly newspapers, for example, which quantify the impact of plane crashes and hijacked airplanes by counting

lives as statistical metrics rather than grievable losses. Our compulsion "to measure the historic, significant, and revelatory" obscures the sensible fabric of daily life and its power to resist totalizing systems of abstraction. Yet the infra-ordinary opposes big data not through nostalgia for the lost world of things, but by appropriating the former's own programmatic logic. To record every nuance of modern life, a life that is composed as much of numbers as of objects or words, requires a method that is algorithmic as well as imperative: "Describe your street. Describe another street. Compare" (*Species* 210). Such rigor is what distinguishes Perec's peculiar form of enumeration from more capacious genres such as the epic catalogue or the encyclopedic novel. (Rabelais, for example, shows Pantagruel gobbling hordes of tripe but never deigns to give an account of exactly how *much* he eats.) A list should be exhaustive rather than merely copious: to omit details simply out of convenience is to legislate unjustly what sorts of things deserve to be remembered.

Omission is inevitable, of course, which is why Perec calls his gargantuan list a *tentative* as well as an *inventaire*. Derived from the medieval scholastics, both the English and the French forms of this word signify an experiment as well as an attempt, a provisional trial that proceeds with rigor despite the uncertainty and contingency of its result.²⁴ As with the two other tentatives in Perec's oeuvre – *Tentative de description de quelques lieux parisiens and Tentative d'epuisement d'un lieu parisien* – this attempt to capture his annual diet as a finite set runs aground on its own surfeit. Perec's redundancies and elisions register traces of a world that is too subtle and too complex to be counted,

even if, without "our need to name and collect ... the world ('life') would be unmappable" (131). It is these glitches, more than the system they corrupt, that makes the infraordinary palpable. A bottle of pinot gris left untabulated, an extra portion of duck confit – what is stake in such omissions is not Perec's appetite but the system that records it, a system that is too riddled with error to succeed in reducing life to a statistical average or a governable sum. What is not "computationally tractable," to borrow Willard McCarty's phrase, can still be felt as a disturbance, however tentative, within the order of the list, a gap between our embodied sense of being-in-the-world and the abstract models that call that world to account.²⁵

2. THE SOVEREIGN GRID:

ITALO CALVINO'S INVISIBLE CITIES

In Six Memos for the Next Millenium, a series composed for the 1985 Charles Eliot Norton Lectures at Harvard, Italo Calvino speculates how literature – or the literary codex, already an embattled medium at the time – might endure in a world increasingly saturated with information. If literature has a future, he suggests, that is because it already embodies many of the qualities that define new media – and which form the five topoi of the lectures: lightness, quickness, exactitude, visibility, and multiplicity. These qualities overlap: to the degree that Calvino's writing – like that of his colleagues among the Oulipo – aspires to the exactitude of mathematics, his style tends to be concise (and therefore quick to reach its point) and abstract, unburdened by historical circumstance or referential texture. Lightness, even more than speed for Calvino, is also the force that governs computation:

È vero che il software non potrebbe esercitare i poteri della sua leggerezza se non mediante la pesantezza del hardware; ma è il software che commanda, che agisce sul mondo esterno e sulle macchine le quali esistono solo in funzione del software, si evolvono in modo d'elaborare programmi sempre più complessi. La seconda rivoluzione industriale non si presenta come la prima con immagini schiaccianti quali presse di laminatoi o colate d'acciaio, ma come i bits d'un flusso d'informazione che corre sui circuiti sotto forma d'impulsi elettronici. Le macchine di ferro ci sono sempre, ma obbediscono ai bits senza peso. (10)

It's true that software cannot exert the power of its lightness except through the heaviness of hardware, but it's software that's in command, acting on the outside world and on machines that exist solely as functions of their software, evolving in order to run programs that are ever more complex. The second industrial revolution doesn't present itself, as the first did, with overwhelming images of rolling mills or molten steel, but as bits in a stream of information that flows, as electronic impulses, through circuits. There are still machines of iron, but they obey bits without weight.²⁶

Calvino anticipates contemporary theories of new media as a "sovereignty of data," a regime, as Tung-Hui Hu defines it, that "blurs the distinction between the regulatory protocols of data networks and the sovereign's right to kill" (139).²⁷ The Italian text makes the analogy more forcefully: it is software that *commands* ("è il software che commanda") and hardware, for all its heft, must obey. Software is light because, like all binary data, it exists beyond the confines of any particular medium: every application – after its source code is compiled into an executable binary (a process that itself follows a sovereign logic, as Wendy Chun observes) - can move seamlessly from machine to machine, from medium to medium. Software passes essentially unchanged (as it does every time a user downloads an app) from a magnetic drive in a server farm, through a vast network of fiberoptic cables, over a wifi signal, and finally onto the flash drive of a mobile phone. With the future of networked computing already on the horizon, Calvino discerns a connection between the immateriality of software, composed of weightless bits ("bits senza peso"), and its demand for absolute obedience, its power to command the most formidable of machines. He goes on to relate the lightness of the digital to that of literature – or rather, potential literature, whose constraints, like the axioms and theorems that drive computational logic, make it fluid and swift enough to carve a path through

"the dense network of public and private restrictions" that envelops contemporary life. Potential literature is "a literature as the extraction of its own square root," a genre that "dreams of immense cosmologies, sagas, and epics encapsulated in the dimensions of an epigram" (50). The abstraction inherent in such epigrammatic writing is what ensures its staying power in the digital age: only through "the highest concentration of poetry and thought," as if shrinking itself to fit the storage capacity of a microchip, will literature survive "in the ever more congested times that await us" (50).

Later in the lectures, exemplifying the exactitude promised by this computational turn, Calvino cites a passage from *Invisible Cities* in which Kublai Khan attempts to map his empire onto the surface of a chessboard.²⁸ A Cartesian grid whose sixty-four squares align with the book's sixty-four chapters, the chessboard is a fitting analogy for the "geometric rationalism" embodied by the emperor and his desire to reduce the "tangle" of urban life to a governable structure of lines and points.²⁹ It is the chessboard that prompts Kublai to envision his empire as "a desert of labile and interchangeable data, like grains of sand, from which there appeared, for each city and province, the figures evoked by the Venetian's logographs" (22). Chess is a medium that allows the two characters to establish "a different communication": when Polo arrives at the court "totally ignorant of the Levantine languages," he expresses himself "with objects he took from his knapsacks – ostrich plumes, peashooters, quartzes – which he arranged in front of him like chessmen" (21). At first blush, this strained effort to communicate with objects ("a helmet, a seashell, a coconut, a fan" [121]) evokes a sort of nostalgia for the lost immediacy of

things – an allusion, perhaps, to the professors at Jonathan Swift's Academy of Lagado, who carry enormous sacks containing every possible object they might need to name.³⁰ But Polo communicates less by moving objects across the chessboard than by moving his own body: when he first arrives at the court, he can "express himself only with gestures, leaps, cries of wonder and of horror, animal barkings or hootings" (21). It is his "improvised pantomimes" that the khan must "interpret" and "decipher": a city depicted by "the leap of a fish escaping the cormorant's beak" or "a naked man [*l'uomo nudo*] running through fire unscorched" (21). A comically excessive display of affect that animates and enlivens the body, these gestures also encipher the body into an instrument of semiosis: speech is stripped away, but rather than returning to a naïve or prelinguistic sense of completeness, Polo performs – at the command of his sovereign – a form of nude life from which the dignity and polity imparted by speech has been subtracted.

What Calvino calls "a language without a speaking subject," then, undergoes a grotesque inversion in *Invisible Cities*. Rather than allow gestures to signify the continuity of a world that has yet to be discretized by alphabetic writing (as Swift does), the text codifies the gesturing body itself into the differential logic of the grid. Calvino stages a crisis analogous to the one that Bernard Stiegler (after Jacques Derrida) ascribes to the invention of alphabetic writing, fracturing an illusory "state of continuity" into "a play of analyzable, diacritical, combinatorial elements" ("Image" 160). *Invisible Cities* traces this combinatory logic from writing to the cities themselves: the citizens of Zenobia, for instance, imagine a replica of their metropolis that is "perhaps quite different, a-flutter

with banners and ribbons, but always derived by combining elements of that first model" (35). The chessboard enacts this combinatory in miniature: an eight-by-eight grid that analyzes even gestures and interjections into a grammar composed of discrete signs. But unlike natural language, where signifiers acquire meaning through shared convention, the language of the chessboard takes on a sovereign force the moment each object is *assigned* an arbitrary referent:

A ogni pezzo si poteva volta a volta attribuire un significato appropriato: un cavallo poteva rappresentare tanto un vero cavallo quanto un corteo di carrozze, un esercito in marcia, un monumento equestre; e una regina poteva essere una dama affacciata al balcone, una fontana, una chiesa dalla cupola cuspidata, una pianta di mele cotogne. (57)

To each piece, in turn, they could give an appropriate meaning: a knight could stand for a real horseman, or for a procession of coaches, an army on the march, an equestrian monument: a queen could be a lady looking down from her balcony, a fountain, a church with a pointed dome, a quince tree. (121)

If William Weaver's translation effaces the semiotic valence of some of these words (rappresentare, significato) in favor of familiar monosyllables, his crib of cupola as dome adds another layer of meaning by echoing Coleridge's "Kubla Khan," one of Calvino's models for the book.³¹ Like his romantic namesake (who did "a stately pleasure dome decree" – above "a mighty fountain" and "many an incense-bearing tree" [2-19]), the emperor of Invisible Cities decrees his duomo, fountain, and quince tree through a speech act that both engenders and replaces the things it names. The sovereign act of naming aligns with the decisive operations permitted by the grid: the connection between signifier and signified is not merely arbitrary but forcibly arbitrated into being. At the same time,

the use of passive voice in the Italian ("si poteva volta a volta attribuire": to each piece could be attributed) abstracts the source of this power away from the emperor to the game itself (which is played "volta a volta," turn by turn). If the passage draws an analogy between sovereign power and the power of a chess player over the pieces he commands, it also reveals the degree to which the emperor is subject to protocols outside his control. Chess permits little ambiguity: a piece cannot occupy more than one cell at once (by straddling the border between two cells, for example) nor can the game be left suspended between two turns (as any novice discovers who unwittingly lets go of a piece before fully committing to its new position, an action that irrevocably ends the turn). Each piece occupies both an absolute point in the sequence of turns and an absolute position on the grid. These two systems converge in the algebraic notation used to record games (and codified quite strictly by the Fédération Internationale des Échecs), where a step-by-step ledger coordinates the exact coordinates of each piece at any given point in time ("c5," for example, signifies a classic opener: a pawn advancing two spaces to the third column of the fifth row). When Kublai compels Polo to contort his body across the surface of a lifesized chessboard, then, he also makes the board a figure for the structures that precede and condition his own authority. If the emperor succeeds in deciphering Polo's pantomime of cities, it is only because he is himself "an emblem among emblems" (23).

This tension between sovereign power and rigorous protocol comes to a fore at the end of book, when the chessboard allegory reaches its logical conclusion.

Allo scacco matto, sotto il piede del re sbalzato via dalla mano del vincitore, resta un quadrato nero o bianco. A forza di scorporare le sue conquiste per ridurle all'essenza, Kublai era arrivato all'operazione estrema: la conquista definitiva, di cui i multiformi tesori dell'impero non erano che involucri illusori, si riduceva a un tassello di legno piallato: il nulla... (58)

At checkmate, beneath the foot of the king, knocked aside by the winner's hand, a black or a white square remains. By disembodying his conquests to reduce them to the essential, Kublai had arrived at the extreme operation: the definitive conquest, of which the empire's multiform treasures were only illusory envelopes. It was reduced to a square of planed wood: nothingness... (131)

Scacco matto: a synecdoche for regicide. Kublai concludes his meditation on chess with the figurative death of a king. Checkmate "disembod[ies]" him, or rather he arrives at the essenza of chess only by force (a forza) of his own excorporation. The verb scorporare (from ecclesiastical Latin: (e)xcorporare, to dissolve a body or uniform substance) carries a legal and economic force in Italian: to expropriate part of a whole in order to redistribute it elsewhere, such as removing land from an inheritance ("scorporare"). In this context, as an antonym of incorporate, it recalls the theological doctrine of the king's two bodies: the emperor embodies a divinely ordained kingship to the extent that his power is excorporated from (and therefore able to outlive) his mortal body. With every checkmate a king dies, and yet the king survives to play another game.

This sovereign afterlife depends in turn upon the differential logic of the chessboard, the "black or white square" on which the king's chess piece lies toppled and deposed.

Kublai arrives at the *ezzenza* of sovereignty by way of an *operazione*, a word that combines military conquest, surgical precision, and algebraic calculation: in chess, the tactics of warfare coincide precisely with formal operations performed on a grid. The operation is

"extreme" and "definitive" to the degree that it excludes the possibility of a middle term.

Either the white king dies or the black – a binary that describes the outcome not just of a particular game (underscored by the indefinite article: *un quadrato* and not *questo quadrato*), but of every possible game. A multiplicity of conquests inheres in "a square of plain wood": not a *quadrato*, a shape capable of standing alone, defined by its angles and edges, but a *tassello*, a shape that exists only as part of a pattern, a shape that can *tessellate*, forming a mosaic by repeating itself without overlapping or leaving gaps (as in Escher's images of chessboards formed from the tessellated silhouettes of birds). The shift from *quadrato* to *tassello* in the passage fortifies the analogy between sovereign force and binary logic: the square on which the "definitive conquest" takes place is itself defined purely by difference, one stitch in a recursive pattern where each element signifies only the absence of its neighbor.

A tassello is also a wedge or a plug, with the same technical connotation as in English: a device that draws electricity from a socket. If this plug is capable of powering Kublai's empire, it is partly because it is a conduit for those weightless bits, as Calvino calls them, that "flow, as electrical impulses, through circuits" (*Lezioni* 10). Like a digital processor, the *operazione* of the chessboard toggles between a pair of discrete values: one and zero, something and nothing (where *nulla* echoes *nullo*: null, void, invalid). The bit (or *binary digit*) is the elementary unit of information, the unit that gives the digital its name: every number and every instruction manipulated by computers is ultimately encoded as an array of binary digits. Although bits are proverbially described as ones and zeros, Calvino's

use of *nulla* here registers a pivotal distinction between the binary and the numeric: a sequence of bits can encode a number, but they do not represent it. In his notes for the Norton lectures, Calvino uses the bit as the exemplary instance of lightness precisely because it lacks any sensible texture or conceptual heft: in the post-industrial epoch, "[t]here are still machines of iron, but they obey bits without weight" (10). If software is "in command," that is because the bit, as an essentially *logical* category that only happens to be materialized by silicone chips, appears to transcend the machines it governs. An array of bits that encode a letter (as an 8-bit Unicode character, for example) may well be realized as an electrical charge on the device that stores it, but, as Aden Evens observes, "no longer does that materiality bear any inherent or sensible relation to the letter it encodes" (11). Data composed of bits is severed from sensible matter just as each individual bit is severed from every other bit (and from its own opposite value): a binary between presence and absence that is rigorously enforceable (if not always incorruptible). The bit is the "apotheosis" of abstraction, as Evens aptly puts it (9) – a unit of pure difference, a grammē, seemingly immaterial, immutable, and yet, like a kingly body, capable of assuming a material form.

But *Invisible Cities*, for its part, does not end with the deadlock of checkmate. Nor does the binary logic exemplified by chess succeed in governing the divergent subplots and lyric vignettes that fill the long gaps between the Khan's decrees. Challenging established readings of the book as a defense of the rational and the geometric, many recent critics observe that Kublai, however formidable, contributes only one half of a dialogue in which

Polo frequently holds the cards. Jennifer Scappetone, for example, argues that "[w]hile Kublai seeks refuge in the chessboard as a model of the invisible order that governs the destiny of cities, Polo's telling stresses the 'infinite deformities and discords' that ultimately elude the imposition of a 'coherent, harmonious system' from without" (298). Rather, Kublai and Polo together stage a dialectic between order and disorder, between the colorless geometry of the grid and the intricate texture of urban life that no abstract structure can map without remainder. Polo's penchant for digression and deferral (often disguised as flattery and deference) not only frustrates the emperor's desire to exhaustively chart and thereby govern his empire but also unravels the rhetorical and narrative forms that underwrite his power.

No sooner does the emperor posit the reducibility of his empire to a binary square than the Venetian explorer launches into an ekphrasis of the chessboard that undermines its function as a communicative medium.

La tua scacchiera, sire, è un intarsio di due legni: ebano e acero. Il tassello sul quale si fissa il tuo sguardo illuminato fu tagliato in uno strato del tronco che crebbe in un anno di siccità: vedi come si dispongono le fibre? Qui si scorge un nodo appena accennato: una gemma tentò di spuntare in un giorno di primavera precoce, ma la brina della notte l'obbligò a desistere. (63)

Your chessboard, sire, is inlaid with two woods: ebony and maple. The square on which your enlightened gaze is fixed was cut from the ring of a trunk that grew in a year of drought: you see how its fibers are arranged? Here a barely hinted knot can be made out: a bud tried to burgeon on a premature spring day, but the night's frost forced it to desist. (131)

No longer a grid of information or a platform for gameplay, the chessboard appears for the first time as a solid block of wood. A hand-carved block, to be precise, whose rustic

texture is untouched by mechanical reproduction: the wood has been cut by a lumberjack ("chosen for chopping down" rather than deforested) and "scored by the wood carver with his gouge." Nothing about the board is uniform. It is made of two woods ("ebony and maple") whose fibres, in marked distinction to the black and white squares, are inseparably interwoven. The surface bears traces of half-formed life: a knot left by a frozen bud, a pore gnawed through by a caterpillar. Even the grid of the chessboard is uneven, and protruding squares have been pared down by hand. If these details converge in a nostalgic (albeit ironized) scene of pastoral labor that suspends the clockwork of the game in a moment of idyllic reverie (a reverie, moreover, that seems largely indifferent to the imperial subjects on whose handiwork it depends), the passage also interrupts the emperor's operazione in order to give the chessboard what the game (which quantizes time volta a volta, turn by turn) has so far precluded: a moment of sustained attention.

Directed toward a crafted artifact, this attention (and the heightened rhetoric it occasions) elevates the passage from a mere description of a woodblock into an ekphrastic description of an aesthetic object. Polo's labored speech seems to absorb the solidity of the thing he evokes, charging language with the vividness of an image even as he digresses from (and thereby suspends) the Khan's demand for narrative progression. The slightest hint of a plot is cut short and ossified into the woodgrain: a spring bud is frozen into a knot, a caterpillar into a hollow pore. Polo trades the lockstep of chess (and the imperial conquests it subtends) for what Murray Krieger calls the "still moment" of ekphrasis, the moment when image and text are "sutured" to each other and the properly temporal

medium of language assumes the frozen guise of the artwork it evokes. Even as ekphrasis strives to narrativize the saccades of an eye roaming across the surface of an image, the ekphrastic description arrests the narrative in which it is embedded, imitating the solidity of painting or sculpture in a way that also intimates the stillness of death. As with Paul de Man's analysis of prosopopoeia, the act of addressing an inanimate object not only animates the object but also strikes the living speaker dumb.³²

But if classical ekphrasis presents the artwork as a singular object of attention, Polo's ekphrasis of the chessboard dispels the aura of singularity by focusing on incongruous details that never quite form a coherent whole. The uneven squares, the interwoven fibres of ebony and maple, the knots left by critters and outgrowths: Polo is at pains to disclose the variety that mars the chessboard's surface, revealing that it is not an isolated artifact but the confluence of many contingent forces. In this way, ekphrasis reverses the reduction of the chessboard to a mere substrate for binary information or stepwise gameplay: the noise that the game is compelled to elide (or more precisely to quantize, counting every square as all black or all white) returns in the form of a fine-grained description that regards even the minutest detail as worthy of attention. Put another way, the ekphrasis reveals a discrepancy between the insensible structure of information and the sensible texture of its material substrate: insofar as encoding information onto a binary grid presupposes the reduction of these minute variations into discrete quantities, the act of describing the chessboard reverses this process and unveils the multiplicity on which it depends.

The noise revealed by ekphrasis gestures towards a sort of mathematical sublime, a failure to make description coincide with a world that is either too vast or too minute to capture in its entirety. If Kublai sees the enormity of his empire reflected in the chessboard (with its nearly endless array of possible games), Polo sees the lives of insects traced in the woodgrain, just as he discerns, in the crumbling walls of imperial cities, "the tracery of a pattern so subtle it could escape the termites' gnawing" (6). This shift from the massive to the minute is one way of resisting the desire, embodied by Kublai, to subsume the particular under the general, to reduce the multiplicity of sensible experience to a binary code of white/black cells. Much as Perec often punctuates his lists with an etcetera that signifies the sublime excess of things too numerous to count, Calvino turns to ekphrasis as a way of allowing himself to be seized by "another vertigo, that of the detail of the detail of the detail": the attempt (never more than tentative) to describe things in their multiplicity, to "divide" and "subdivide" the field of the visible and the sayable, refocuses his attention from "the infinitely vast" to "the infinitesimal, the infinitely small" (67-8).

Like enumeration, ekphrasis is a genre that struggles to delimit and contain its object. In *The Infinity of Lists*, Umberto Eco contrasts the potentially endless form of the list with Homer's ekphrasis of Achilles's shield, whose "perfectly circular nature suggests that there is nothing else beyond its bounds": the shield is "a finite form," "a closed world" with "no outside" (12). And yet the ekphrasis of the shield also digresses into an encyclopedic list that strives to encompass the totality of Greek life, ultimately erasing the distinction between the world circumscribed by the bronze rim of the *apsis* and the world in which it

was forged. To the extent that ekphrasis engages the artwork as a portal to a figured world, it risks allowing that world to grow beyond (and therefore disfigure) the frame of the artwork itself. In a similar fashion, the ekphrasis of the chessboard in *Invisible Cities* moves swiftly from description to enumeration, embarking on an epic catalogue of images that seem to crawl out of the woodwork:

La quantità di cose che si potevano leggere in un pezzetto di legno liscio e vuoto sommergeva Kublai; già Polo era venuto a parlare dei boschi d'ebano, delle zattere di tronchi che discendono i fiumi, degli approdi, delle donne alle finestre... (63)

The quantity of things that could be read in a little piece of smooth and empty wood overwhelmed Kublai; Polo was already talking about ebony forests, about rafts laden with logs that come down the rivers, of docks, of women at the windows... (132)

On the one hand, this passage panders to Kublai's desire to survey the chessboard as a microcosm of his empire, a grid that could reduce the multiplicity of cities described by Polo to a single "quantity." Taking the form of the list (a form, as Perec reminds us, that counts as well as recounts the elements it enumerates), Polo's description feeds the emperor's ambition to embody the "sum of all wonders" and to distill narrative digression into informative summary (5). Like many of Perec's lists, however, this one ends with an ellipse: a device that promises continuity and completion while exposing the list to an innumerable surfeit of things that remain unsaid. Just as the ekphrasis of the chessboard reveals a multiplicity of details within its surface, the list suggests that each of those details in turn unfolds into a multiplicity of wooden artifacts adrift in imaginary cities: out of the woodgrain grow forests, rafts, logs, windowsills. A vertigo of details within details: it is not

simply things, but the "quantity of things" that overwhelms Kublai (*sommergeva*, literally submerges or inundates him), a sort of mathematical sublime that defies the capacity of the imagination to intuit an image of the infinite. The ellipse gives voice to the unquantifiable, the countless details that make the chessboard not one object, but many.

The multiplicity that ekphrasis reveals within the grain of the chessboard – an essentially spatial form – finds a temporal counterpart in digression, a device that divides the singular chronology of plot into a multitude of forking paths. Ekphrasis offers a respite from the narrative continuity that Kublai attempts in vain to impose on Polo's maddeningly digressive account. It suspends both the causal logic of plot and the quantized time of chess, a time governed by sequential moves and the swift execution of unquestionable commands. It is this regimented sense of time that Calvino contrasts with the pleasures of digression in his memo on "Quickness," citing Carlo Levi's introduction to an Italian translation of *Tristram Shandy*:

La morte sta nascosta negli orologi, come diceva il Belli; e l'infelicità della vita individuale, di questo frammento, di questa cosa scissa e disgregata, e priva di totalità: la morte, che è il tempo, il tempo della individuazione, della separazione, l'astratto tempo che rotola verso la sua fine. (46)

Death is hidden in clocks, as Belli said, along with the unhappiness of individual life, of this fragment, of this thing that is divided and disintegrated, deprived of wholeness: death, which is time, the time of individuation, of separation, the abstract time that rolls towards it end.

If abstract time disintegrates the continuum of lived experience by making it calculable and accountable, digression redoubles this fragmentation in order to make time "so complex, tangled, tortuous, and so rapid as to obscure its own tracks." Clock time divides

the temporally continuous into the spatially discrete, a process of grammatization, as Stiegler observes in his reading of Heidegger in *Technics and Time*, that reveals "[t]he 'clockness' of the *grammē*, or rather the *grammē* or programmness of the clock" (*Technics* 224). If Heidegger's antidote to the administered time of modernity is to champion the yet undiscretized presence of the *now* (a move that Stiegler critiques as fundamentally logocentric), Levi proposes an alternative model in which narrative digression, rather than nostalgically seeking to restore "wholeness," reveals a difference, a fracture, within clock time itself.

On the one hand, then, Polo's ekphrasis gives the chessboard (as well as the prose through which it becomes visible) a sort of fragile solidity, allowing language to congeal – and this is the ekphrastic illusion – into an almost sculptural form that evokes the texture and heft of a silent work of art. At the same time, the ekphrasis digresses from and thereby thwarts Kublai's desire to propel the narrative forward, suspending the clockwork with which the book divides time into discrete episodes and sequential (if ultimately inconsequential) events. Ekphrasis is always digressive to the extent that it foregoes the causal entanglements of plot for the dilated and often asynchronous time of description (as in Homer's ekphrasis of Achilles' shield, where a story of oxen plowing a golden field becomes indissociable from the forging of the golden shield itself as well as the writing of the furrowed lines of the poem: three moments, all superimposed). But Polo's ekphrasis of the chessboard is also digressive in the more narrow sense defined by Levi, interrupting the discretized and purely logical time of the game with a description that is much too

hesitant, too carefully qualified to achieve that sense of ambient stasis that distinguishes the ekphrastic mode. Of course, one could agree with W. J. T. Mitchell that hesitancy and self-doubt are themselves hallmarks of the genre, registering an ethical ambivalence toward the other as well as toward the artwork whose alterity ekphrasis seeks to neutralize.³³ In Polo's case, however, the tentative character of his speech also extends a long line of similarly halting (and unabashedly ekphrastic) descriptions of cities, many of which begin with a modesty *topos* that is as impish as it is disarming. It is through omissions, negations, and slippages that the ekphrastic object imprints itself on language as a sort of negative impression: a "black hole," to borrow Mitchell's phrase for the sublimely ineffable artwork that remains forever indescribable even as it warps language around the gravity of its absence (158).

In a 1974 letter to Giovanni Falaschi, who reviewed *Invisible Cities* and *The Castle of Crossed Destinies* in *Belfagor*, Calvino objects to the suggestion that the empty square of the chessboard signifies the impossibility of empirical knowledge, observing that, in the same passage, "one learns that this apparent void is full of the details of real life, and that one can read these indefinitely" (381). If the journey reveals nothing but "approximations and errors," that is because there is "no other form of knowledge except that which is gained through successive approximations and corrections of mistakes" (382). It is precisely because objects can never be exhaustively described that they continue to occasion description. The letter echoes his earlier remark in a 1967 essay on comedy:

Una cosa si può dirla almeno in due modi: un modo per cui chi la dice vuol dire quella cosa e solo quella; e un modo per cui si vuol dire sí quella cosa, ma nello stesso tempo ricordare che il mondo è molto piú complicato e vasto e contraddittorio. ("Comico" 157)

A thing can be said in at least two ways: one way in which, in saying it, you want to say that thing and that thing alone; and one way in which you want to say that thing, certainly, but at the same time remember that the world is much more complicated and vast and contradictory.

It is this desire to register traces of a contradictory world that tempers Calvino's penchant for formal harmony and geometric rigor. In the Harvard lectures, almost twenty years later, he contrasts the exactitude of mathematics with the more elusive forms of exactitude pursued by literary description. Exactitude concerns, "[o]n the one hand, the reduction of contingent events to abstract schemes like the ones used to perform operations and demonstrate theorems; on the other, the effort of words to account as precisely as possible for the sensible aspect of things" (72). Despite the crisp parallelism of this analogy, description differs radically from calculation in its desire to confront the contingency of the sensible world – a collision between words and things that mars the texture of descriptive prose and makes an otherwise fluent style seem tentative and hesitant. In Calvino's words: "[I]n accounting for the density and continuity of the world around us, language reveals itself as lacunose, fragmentary: it always says something *less* than the totality of what can be experienced [totalità dell'esperibile]" (72). Description is paradoxically most exact when it admits the impossibility of coinciding with its object: to say a thing "more than one way" is to describe it again and again, each attempt a little nearer the mark – a history of errors, of estimates and corrections, that never converge

into the finality of an equation.

In this sense, Calvino shares with Perec a desire to mediate between number, word, and image, to offset the rigor of formal constraints with what Manet van Montfrans, in the subtitle of his influential study on Perec, calls "la Contrainte du réel." The dialogue between Kublai and Polo stages a literary analogue of the tension that Perec discerns in enumeration: just as a list oscillates between the promise to exhaust its topic and the etcetera that leaves it incomplete, the dialectic at the heart of *Invisible Cities* mediates between a desire to govern the world through calculation and the rhetorical forms – description, digression – through which an incalculable, ungovernable world pushes back. As Perec does with the infra-ordinary, constructing tentative lists of the details of quotidian life, Calvino sets out to approximate experience through "the impalpable dust of words" (74), crafting images of a world that is too granular, too noisy, to conform to his otherwise attenuated style – much less to the protocols and axioms that would otherwise reduce life to the order of weightless bits.

Reading Perec and Calvino this way gestures towards a broader entanglement of potential literature with new media, anticipating the ways in which poets two decades later, at the turn of the millennium, will adapt the tradition of writing *sous contrainte* to respond to a digital milieu – only just nascent at the founding of the Oulipo – that has since exploded into the fully networked, fully quantified realm we inhabit today. What Perec and Calvino offer their millennial successors is the sense, perhaps utopian, that the sovereignty of data, for all its glossy surface, conceals points of fracture that potential

literature is especially poised to reveal. By making the digital itself (or the formal logic on which it depends) an object of literary description, potential literature gives a sensible texture to what is properly insensible: structures of information – lists and grids – that never quite manage to filter out the noise, the granularity, on which literature thrives.

3. LETTERS ENFETTERED:

CHRISTIAN BÖK'S EUNOIA

"Constraint, as everyone knows, has a bad press," writes Marcel Bénabou. "All those who esteem the highest value in literature to be sincerity, emotion, realism, or authenticity mistrust it as a strange and dangerous whim" (40). Few books of contemporary poetry are as whimsical (or as dangerous, some might say) as Christian Bök's Eunoia. Inspired by the Oulipo, the book follows a simple premise: each of the five chapters uses a single vowel. The resultant text reads something like a truncated dictionary, a Rabelaisian catalogue of obscure words that nevertheless form a surprisingly legible and compelling narrative. Despite its difficulty, Eunoia has been wildly successful: it is the most popular book of poetry in Canadian history, an international bestseller (hitting number eight on Amazon.uk a few weeks after its British publication), and the winner of the prestigious 2002 Griffin Prize for Poetry. It has been choreographed for dance ensemble, mined for hiphop lyrics, and translated into emoji.³⁴ The book's success – almost unprecedented in the world of experimental poetry - has also fueled the animosity of its detractors, who complain (as Bénabou might predict) that Bök trades authentic expression for gimmickry and repartee.35

What is it about *Eunoia* that appears so threatening to its critics? How can a text so widely celebrated by its mainstream readers also elicit suspicion and contempt from other contemporary poets? Perhaps it is because *Eunoia* flaunts its constraint with a gusto that

seems to preclude the sort of hesitancy we find in Perec and Calvino, embracing the procedural and the programmatic without leaving adequate space for their critique. Bök frames the practice of writing under constraint as a tedious affair that resembles, or even exemplifies, the forms of disaffected, deskilled labor that characterize post-industrial life. *Eunoia* foregoes *otium* for *labor* – and so appears both to capitulate to the capitalist demand for calculable yields, dismissing poetry's potential to resist that demand through radical forms of indolence and reverie. This is a narrative, however, that I will push back against: a close reading of *Eunoia* together with Bök's scholarly work on 'pataphysics suggest that his poetry is both more lyrical and more radical than either he or his critics are often willing to admit.

The postface to *Eunoia* describes its procedure in detail:

'Eunoia' is the shortest word in English to contain all five vowels, and the word quite literally means 'beautiful thinking.' *Eunoia* is a univocal lipogram, in which each chapter restricts itself to the use of a single vowel. *Eunoia* is directly inspired by the exploits of Oulipo . . . the avant-garde coterie renowned for its literary experimentation with extreme formalistic constraints. The text makes a Sisyphean spectacle of its labour, willfully crippling its language in order to show that, even under such improbable conditions of duress, language can still express an uncanny, if not sublime, thought. (103)

Eunoia takes after Perec's La Disparition, a 300-page novel that omits the letter e (a true feat in French, preventing the use of almost all feminine nouns as well as the masculine definite article). A parody of hard-boiled detective fiction, La Disparition tells the story of several friends in search of a companion, Anton Vowl, whose absence (like the vowel missing from his name) becomes an allegory both for the lipogram itself and for the chaos

that follows in its wake. Dozens of characters are murdered on the verge of pronouncing the forbidden letter: the Corsican detective Ottavio Ottaviani, for example, spontaneously dies just as he is about to announce that the text he is reading, a poem without the letter a, also lacks the letter e ("Mais il n'y a pas non plus d' …").

Like Perec's novel, *Eunoia* obeys one of the founding principles of potential literature: "a text written according to a constraint describes the constraint" (Roubaud 41 – 2). Constraints are generative as well as restrictive: they shape the content whose expression they constrain. The opening salvo of each chapter is glibly self-reflexive: "Awkward grammar appalls a craftsman" (1); "Enfettered, these letters repress free speech" (31); "Writing is inhibiting" (50). And, as with Perec, characters die on the brink of saying the unsayable: Hassan, the protagonist of Chapter A, expires amid a "grand mal spasm and, *ahh*, gasps a schwa, as a last gasp" (30). But there are more constraints:

All chapters must allude to the art of writing. All chapters must describe a culinary banquet, a prurient debauch, a pastoral tableau and a nautical voyage. All sentences must accent internal rhyme through the use of syntactical parallelism. The text must exhaust the lexicon for each vowel, citing at least 98% of the available repertoire (although a few words do go unused, despite efforts to include them: *parallax*, *belvedere*, *gingivitis*, *monochord*, and *tumulus*). The text must minimize repetition of substantive vocabulary (so that, ideally, no word appears more than once). The letter Y is suppressed. (103 – 4)

Many of these constraints are also Oulipian. The goal of exhausting the available lexicon recalls another common principle: "the Oulipian text actualizing a constraint [is] envisaged only on the condition that this text contain all the possibilities of the constraint" (Roubaud, "Deux Principes" 95). Raymond Queneau's *Cent mille milliards de poèmes*, for

example, does not just give us a new collection of sonnets; it gives us so many sonnets that even the most assiduous reader could never hope to read them all in a lifetime – indeed, the work relieves poets of the need to write a sonnet ever again.³⁶ The Oulipian text generates an unmanageable surfeit that exhausts the novelty of its constraint. Kenneth Goldsmith's endorsement in the book's blurb is apt: "*Eunoia* takes the lipogram and renders it obsolete."

Even *Eunoia*'s thematic content seems to derive from the constraint: by Bök's own account, the four principle motifs (banquet, debauch, tableau, voyage) emerge fortuitously out of the vocabulary common to all five vowels. By setting out to exhaust his repertoire, Bök seeks to reveal the latent preoccupations of the English language: what topics recur so frequently in the dictionary that we can speak of them even under the harshest of restrictions? Of course, the motifs are also suspiciously literary: Bök notes that they are "the kinds of scenarios that you typically see in Greek epic poetry" ("On Being Stubborn"). Chapter E, whose heroine is Helen of Troy, retells the entirety of Homer's *Iliad* – and with a sense of elegance and poise that befits the epic tradition of aestheticizing violence: "When the helmeted men get pelted, the slender needles (*les fléchettes*) dent the crested helmets" (45).³⁷ Bök would maintain, however, that Chapter E is only epic because the epic is deeply inscribed in the history of our language: not just centuries of translating the classics, but centuries of glorified combat have left English with a rich vocabulary for speaking eloquently about war.³⁸

Despite its international success, *Eunoia* has not always met with enthusiasm. What

some readers celebrate as the deftness and ingenuity of its difficulté vaincue, others see as an obsequious display of the poet's labor. For many poets sympathetic to the lyric tradition, the book's technical artifice comes at the expense of poetic affect: the book substitutes elbow grease and gimmickry for emotion recollected in tranquility. Bök would seem to agree: such a "Sisyphean spectacle," he notes in the afterword, "has required seven years of daily perseverance for its consummation" (105). This is no joke. In an interview with Charles Bernstein, Bök recounts the duress of his writing process: an overworked graduate student at the University of York, holding down two jobs at sixty hours a week, he toiled away on the project from midnight to early dawn every night for the better part of a decade, gradually succumbing to the paranoid suspicion that the vowels themselves were conspiring against him ("On Being Stubborn"). The story is hyperbolic, of course, and possibly apocryphal, but it is part of the mythos of toil that has shaped *Eunoia*'s reception, a mythos promulgated by the text itself. Work is a recurrent motif in Bök's oeuvre: by way of prefacing his recent translation of the fourth book of Virgil's Georgics, for example, he explains how he micromanaged his workload by parsing the text into fifty blank verse sonnets, each to be completed in just under two days. He maintained this pace for the duration of the ninety-day project, mimicking Virgil's own analogy between the geometrical structure of the beehive and the division of apian labor.³⁹

This emphasis on work has led many critics to dismiss *Eunoia* as "pointless toil." The Canadian poet Carmine Starnino coins this phrase in an infamously scathing review that describes the book "not so much as a triumph of ambition as a triumph of stamina" (130):

technically adept, yes, and a "spectacular *jeu d'esprit*," but ultimately frivolous and without aesthetic merit. Starnino's reading, for all its polemic, is representative of critiques leveled at the Oulipo in general: on the one hand, constraint-based writing appears juvenile and self-indulgent, indifferent to any extrinsic purpose beyond the reshuffling of written signs; on the other hand, it is ruthlessly logical to the point of masochism.

Such critiques are often indignant towards the Oulipo's apparent disregard for the value of literary and artistic freedom: the sense that language games of this sort are fundamentally hostile to the free play of the imagination. Starnino condemns "such selfpunishing acts of technical adroitness" not because they produce absurd results (130), but because they threaten the concept of the lyric as an organic form: "A difficulty mastered should never itself be the prompt that motivates poems into life, particularly since that difficulty will stop representing a danger the moment it can no longer shock the reader with its impossible surmise" (131). Novelty value has a half-life, no doubt, although Starnino's point is also that the book fails to sustain its defamiliarizing effect because the procedure itself is static. If the effect of *Eunoia* is "attritional – less and less achieved," that is because the constraint effectively generates the text in advance, foreclosing at the outset the dialectical play between literary form and aesthetic judgement on which lyric poetry depends. Starnino's authority here is Coleridge: "The idea which puts the form together cannot itself be the form" (133). Poetry submits itself to the rigor of form in order to bring that form to life (and thereby justify its rigor in the first place); *Eunoia*, on the other hand, offers only the "confirmation of a conundrum solved" (133). Hence the irony of Starnino's

witty if spiteful remark that *Eunoia* places "authorship" on "autopilot" (134): the procedure submits poetry to just the kind of tedium and automatism that the avant-garde's tactics of *ostranenie* set out to disrupt. If *Eunoia* estranges conservative readers who expect poetry to be expressive, it also estranges many avant-garde readers who see its constraint as an affront to aesthetic freedom and an effort to subdue the contingency of quotidian life.⁴⁰

One way to defend *Eunoia* against this charge is to argue that the constraint does, in fact, generate surprising images and turns of phrase that are every bit as pleasurable as those we find in poetry written with all five vowels. If we accept that poetry is characterized less by personal expression than by verbal originality (the traditional formalist defense of the genre), *Eunoia* is poetic indeed: the constraint gives rise to highly improbable yet beautiful sentences that would otherwise have been unthinkable. The book is multi-generic, rich in literary allusions, and tonally complex, ranging from somber elegy to ribald humor and epigrammatic wit. In her influential essay "The Oulipo Factor," Marjorie Perloff defends *Eunoia* on precisely these grounds: not only do such constrained texts reward (and continue to reward) close reading; they give us an antidote to a pervasive lack of formal competence among contemporary poets who see language as a self-effacing vehicle for spontaneous feeling. Perloff laments that today the word *poetry* typically designates "not the melopoetic origins of lyric poetry or the page designs of visual prosody but rather an ironized narrative or, more frequently, the personal expression of a particular insight" (31). What the Oulipo offers contemporary poetry - amid the play of homophones and lipograms, amid all the pantoums, rondeux, and

villanelles – is a renewed sense of the value of form. From this perspective, constraint-based writing shares a common imperative with modernism: by foregrounding the materiality of poetic language, texts such as *Eunoia* revive the avant-garde (and Russian Formalist) project of estranging us from our naturalized habits of perception, starting with our perception of the graphic and phonetic materiality of language.

Perloff mounts a powerful defense of potential literature that side-steps the charge of gimmickry by linking the work of constraint to a modernist paradigm whose literary value is difficult to deny. On the other hand, she does so by privileging the verbal originality of such works, even though (as she observes herself in *Unoriginal Genius*) this is precisely what contemporary procedural writing calls into question. By his own account, Bök is a founding member of the conceptual writing movement – and Eunoia is a definitively conceptual text, part of a genre that champions boredom, disdains originality, and resists close reading (or even reading at all). In Kenny Goldsmith's words, such poetry aims to procure a "thinkership" rather than a "readership." It is strategically illegible – not because the language itself is disjunctive, paratactic, or otherwise difficult in the sense that Ezra Pound's Cantos, Zukofsky's "A," or the work of the Language poets is difficult, but because the texts are unbearably tedious and boring to read.⁴¹ Such texts invert the relation between linguistic difficulty and literary value that is integral to formalist criticism: if they are difficult, it is because their language appears so quotidian, so bereft of verbal texture; if they are valuable as works of poetry, it is because they appear so profoundly unpoetic. Either these works are written in everyday prose lifted wholesale

from unremarkable sources (such as Goldsmith's Day, which transcribes the entirety of a random edition of the *The New York Times* into a *Ulysses*-sized tome) or they follow an axiomatic procedure that renders the text uniform, mechanical, and repetitive (such as Craig Dworkin's *Parse*, which parses a Victorian grammar manual according to its own rules). Sianne Ngai argues that these conceptual works evoke the affect she dubs "stuplimity": the sublime power of tedium to stupefy its audience – achieved either via a "minimalist lexicon" deprived of the causal links that would otherwise propel the work forward or via or "a strategy of agglutination – the mass adhesion or coagulation of data particles or signifying units" (262). *Eunoia* is agglutinative in this sense, a fitting example of what Ngai calls "the kind of exhaustion involved in the attempt to read a dictionary." (Bök, in fact, read the 1976 edition of Webster's *Third International Dictionary* five times while mining vocabulary for the book.) The result, some might say, is as tedious to read as it must have been to write: an anonymous poster on the *Harriet* blog describes the experience of reading the book as "somewhat akin to reading all the cryptic-crossword clues from the Daily Telegraph for a year." Like Starnino's dismissal of *Eunoia* as "pointless toil," however, such an account overlooks the fact that toil is all to the point: what makes *Eunoia* a conceptual work (and arguably distinguishes the text from its Oulipian precursors) is the pervasive tactics of tedium that characterize both the mode of its composition and its literary effect. From this perspective, *Eunoia* is not simply defendable on the grounds that it rewards close reading – even if, in the hands of a critic as astute as Perloff – it can indeed be close read. To cite the book's final epigram (from Darren

Wershler-Henry): "[t]he tedium is the message" (103).

Part of the problem is that such tedium often takes the form of a rigid uniformity that makes the book seem retrograde or even authoritarian, a critique often leveled at the Oulipo in general. Potential literature, as Jan Baetens and Jean-Jacques Poucel observe, has often been maligned as the work of an arrière-garde that rejects the avant-garde's equation of "innovation as freedom and freedom as innovation" – a nostalgic retour borne out of what Paul Valéry would call "sympathy for the return to order" (620). But which order, precisely? Jean-François Puff argues that the Oulipo's passion for reviving and reinventing formes fixées threatens to reabsorb the avant-garde within what Jacques Rancière calls the "representational regime of the arts." Originating with Aristotle's *Poetics* and finding its fullest expression from the Renaissance to the end of the eighteenth century (without concluding there), the representational regime defines the fine arts primarily as ways of imitating action, ways of narrating or legislating forms of doing and making (*manière à* faire). The logic of representation is hierarchical, organizing and classifying the arts according to constitutive conventions: the fitness of genre to subject matter, the primacy of living speech over pictorial representation, the causal logic of fictive action (as opposed to the contingent sequence of historical facts), and a close alliance between social standing and rhetorical eloquence – all of which work to establish a hierarchy of artistic forms analogous to the social hierarchy of occupations. With the rise of European romanticism, the representative regime gradually gives way to (without being totally eclipsed by) the aesthetic regime of art, which works to dissolve classical hierarchies by defining art as the

"sensible fabric and intelligible form" of a specific mode of experience – a capacity for affection rather than a mimesis of action (*Aisthesis* ix). Even as the aesthetic regime delimits art as an autonomous sphere, collapsing the hierarchy of *manière à faire*, it also makes this new autonomy precarious by erasing the distinction between art and life, making art an experience common to all. For Puff, then, what is at stake in the Oulipo's nostalgia for order is precisely the tension between these competing regimes of art, between *mimesis* and *aisthesis*. The problem is not just that the group has a strong predilection for perversely restrictive poetic genres that happen to have originated in the classical age or the baroque – or even that, by reviving pantoums, acrostics, or villanelles, the group succumbs to nostalgia for the courtly elegance of the ancient régime. The problem is that the Oulipo identifies art with a set of rules rather than with a mode of experience and, in this way, threatens to reverse the political force of the aesthetic regime: its emancipation of art (and of its spectators) from the hierarchical logic of representation.

In many ways, *Eunoia* is an exemplar of such logic. Bök has said that the project "reflects a kind of neoclassical set of values about beautiful thinking." The book's epigram is taken from *The Triumphs of Temper* (1781) by William Hayley (the friend and biographer of William Cowper): "*Source of my being and my life's support!* / EUNOIA call'd in this celestial Court" (9). *Eunoia* bears out the courtly decorum of this heroic couplet on several fronts: there is the lipogram itself, of course; the restaging of classical genres with a drollness characteristic of the mock epic (Chapter E shows all the refinement of Alexander Pope's translation of the *Iliad*, if not also the witticism of "The Rape of the Lock"); the

allegorical flatness of the characters; the simple causal logic of a plot composed primarily of short transitive sentences (enforced partly by the absence of available prepositions); the use of Rabelaisian catalogues. Even the design of the book is decidedly classical: Bök constructed the layout himself and typeset the text in Adobe Minion (a humanist typeface based on several old-style typefaces of the late Renaissance and now a mainstay of academic monographs – you are reading it now). Indeed, the design is another unstated constraint: each chapter has the exact same number of lines throughout (12 for o and a; 11 for i and e; 13 for u) and the text fits squarely into a right-justified block with minimal hyphenation and no rivers or text-wraps from page to page. This is a nontrivial feat: Bök had to truncate his writing to fit the page, typesetting as he wrote and discarding otherwise viable lines because they were too long or too short. The effect of this Procrustean treatment is a rigorously uniform design that compliments the lipogram's power to marshal language into order.

And yet Bök also characterizes this pursuit of order as a form of self-directed play. He describes the writing of *Eunoia* (and of avant-garde poetry in general) as an activity "done for its own sake – as a kind of hedonistic enjoyment of language, language free from the need to mean ... That's what going on in *Eunoia*: language has taken a little holiday from the dictionary" ("On Being Stubborn"). Echoing Gregory Bateson's definition of information, Bök argues that the poet's task is to "produce a minimal difference that, in fact, makes a difference." On the one hand, then, he anticipates Perloff's argument (derived ultimately from Russian Formalism and Jakobson's structural linguistics) that

poetry diverts language from its communicative function in order to render it newly palpable, to demystify the relation between its naturalized capacity to convey thought and its basis in a differential system of arbitrary signs. Such demystification, moreover, is aligned with the avant-garde's critique of mimesis: to reject poetry's illusion of transcendental meaning (by analogy with painting's impression of depth via the illusion of linear perspective) is to reclaim the surface of language as poetry's proper medium.

On the other hand, Bök's remark invokes a competing theory of the avant-garde under the sign of Theophile Gautier's dictum *l'art pour l'art*, a vestige of the post-Kantian aesthetic tradition and its concept of art as a sphere of disinterested, self-directed play. This is how I read Bök's claim that his practice involves "a kind of hedonistic enjoyment," a recognition that avant-garde poetry stages its break with past forms on behalf of the disruptive force of the aesthetic. Responding to Starnino's review – and specifically to its invocation of Johnson and Coleridge to defend the romantic concept of organic form - Bök sets out to "rebut these critics by citing the contrary argument of Kant, their peer, who suggests that forms are beautiful, only if they exist for their own sake, divorced from any reference to a superior function" ("Nude Formalism"). Leaving aside the complicated question of Coleridge's interpretation of Kant (whom Starnino clearly misreads, ascribing to him the opinion that form must be an *instrument* of thought), I want to underscore Bök's more general point that constraint-based poetry is a form of aesthetic play – a point he makes at greater length in his doctoral thesis on Alfred Jarry and the imaginary science of 'pataphysics.

Perhaps best known for his proto-absurdist play Ubu Roi (whose *enfant terrible* also stars in Chapter U of *Eunoia*) and a major influence on futurism and surrealism, Jarry is also the author of a cryptic work of speculative fiction whose protagonist, Dr. Faustroll, proclaims the birth of a new science:

[P]ataphysics will be, above all, the science of the particular ... It will investigate the laws that govern exceptions, and it will explain the universe supplementary to this one; or, less ambitiously, it will describe a universe that one might envision – and that perhaps one *should* envision – in place of the traditional one. (30-31)

Bök's study traces the afterlife of this enigmatic definition in post-structuralist theory (Deleuze, Baudrillard, and Seres, among others) and across a surprising range of avant-garde writers and artists: the Oulipians, of course, but also Jorge Luis Borges and Marcel Duchamp (who joined the *Collège de 'Pataphysique* in the 1950s). 'Pataphysics imitates scientific procedures while strategically refusing to yield calculable results: the task of the 'pataphysician is to posit absurd hypotheses that can be tested with systemic rigor and yet whose solution produces no positive knowledge. Consider, for example, Duchamp's notes for *Boîte verte*, proposing to "classify combs by the number of their teeth." Or his *Trois stoppages étalon*, a work composed by dropping three meter-long strings onto the ground and using their resultant shapes as blueprints for machine-cut rulers. Since each ruler has a curved extension of exactly one meter but a different linear extension, it is both perfectly exact and completely useless for measuring actual objects. Bök describes such practices as radically speculative: 'pataphysics makes hypotheses not in order to prove their validity, but in order to envision an imaginary solution to a problem that was never posed. The

logical sequence from hypothesis to proof, from the operative *as if* to the conditional *if then*, is short-circuited, instead giving rise to a virtual space between quantitative rigor and aesthetic play. If science, Bök argues, is "allotelic ... justifying itself for the sake of a finality outside its own language," then poetry (and the aesthetic imagination more generally) is "autotelic ... justifying itself for the sake of a finality inside its own language" (15). The task of 'pataphysics is to deconstruct this symmetry: to make science a space of self-directed play (relieved of its monopoly on the production of truth) and poetry a process of rigorous inquiry. 'Pataphysics, then, is also an aesthetic praxis that suspends the demand for meaningful action in order to create literary and artistic works that are disinterested, purposive (without purpose), and resistant to conceptualization even as they offer the semblance of conceptual thought.⁴²

Starnino's dismissal of Eunoia as a literary game "upheld for its own sake" (134), then, overlooks the way that the post-romantic lyric tradition, like Bök himself, champions poetry precisely for its resistance to instrumentalization. Craig Dworkin describes Eunoia as "an interface to the database of entries in the three volumes of the 1967 edition of Webster's *Third International Dictionary*" (52). But this interface is anything but user friendly. It is designed, rather, to strategically dismantle the dictionary's effort to order and taxonomize the English language. Although the words contained in its lexicon form a complete set delimited by the constraint (every word, or almost every word, that uses only a single vowel), those words are neither defined nor available for random access. What is more, because the lipogram excludes so many common words, Bök must dredge up terms

whose specificity belies their context: a poet is not just a poet, but "[a] Dada bard as daft as Tzara," "[a] madcap vandal," or "a pagan skald" (12). Such lexemes index the absence of the common terms they replace while at the same time giving rise to a surfeit of meaning. In this way, the text inverts the relation between the specific and the general, between hyponoym and hypernym, that makes dictionary definition possible in the first place. The uniform logic of hierarchical definition is broken; the dictionary dissolves into a chaotic welter of examples all competing for equal attention. Umberto Eco describes this effect in an essay on the Porphyrian tree that might easily apply to *Eunoia*:

The tree of genera and species, the tree of substances, blows up in a dust of differentiae, in a turmoil of infinite accidents, in a nonhierarchical network of *qualia*. The dictionary is dissolved into a potentially unordered and unrestricted galaxy of pieces of world knowledge. The dictionary thus becomes an encyclopedia, because it was in fact *a disguised encyclopedia*. (68)

As an interface to the dictionary, *Eunoia* is strategically useless, but useless in a way that also mimics (and thereby reveals as contradictory) the dictionary's desire to systematize knowledge. The book claims to reveal statistical trends in English usage, which it does in part (the fact that words for food, sex, nature, and travel occur with such high frequency in the language that one can write at length about these topoi using only one vowel). But at the same time, the logic of statistical organization is everywhere subverted by what Dworkin (after Jarry) calls "the perverse spin of the expected" (31): witticisms, tautologies, double entendres (to say nothing of Ubu's scatological humor) – all of which signify more than the dictionary bargains for. *Eunoia* thus showcases the limits of statistical metrics by parodying their effort to form coherent totalities. The book demonstrates, in Dworkin's

words, "the 'pataphysical power of exceptions – singularities, anomalies, perversions, swerves – to belie the ambitions of any general system of statistical average" (39).

Eunoia refuses to deliver calculable results even as it makes the logic of calculation into a form of play, an image of lyric repose staged within and against the lipogram whose ardor it negates. For a text so obsessed with toil (and especially the toil of its own composition), Eunoia is surprisingly full of leisure: of the four repeated genres (banquet, debauch, tableux, voyage), at least three are pastimes, which the poem elaborates with gusto: Helen of Troy, for example, enjoys a feast no less sumptuous and ethereal than the infamous blancmanche stanza of Keats's "Eve of St. Agnes": "[H]er serfs get the best gels ever jelled; les pêches gelées – blended sherbet, served fresh. The scented desert smells even sweeter when served ere the sweetness melts" (35). 43 Such moments of otium are most vivid and emphatic when they appear, as they often do, in the final line of each page, suspended in the empty space between pages even as they offer the semblance of closure. This happens most often in Chapter A, perhaps because the indefinite article is best suited to the presentation of singular objects:

A naphtha lamp can give a calm warmth. (13)

A lass as sad as a swan twangs a glass harp. (15)

A clasp snaps apart, and a scant shawl falls. (16)

A damp flag flaps at half mast. (25)

Other such lyric suspensions abound. Chapter O is lit with "glowworms" (like Marvell's "ye living lamps") that glow like "[d]ots of color, blown off from blowtorch glow" (75).

Chapter E is ephemeral, partly thanks to all the nouns that end in *ness (feebleness, helplessness, wretchedness, dejectedness)*: nominalized adjectives that give feelings the fleeting solidity of things. In Chapter I, the most lyrical of all, the poet muses: "I sight high cliffs, rising, indistinct in thick mists, lit with lightning" (53). Or he surveys Tintern Abbey with Wordsworth (who also makes a cameo in Chapter O): "Hiking in British districts, I picnic in virgin firths, grinning in mirth with misfit whims, smiling if I find birch twigs, smirking if I find mint sprigs" (52). Such images of idleness – which offer a fleeting respite from the onslaught of the dictionary – remind us that the constraint itself is a way of suspending the demand for profitable work. They are at once artful and effortless, the result of an exacting procedure whose goal is to make us forget the presence of the lipogram that the text also flaunts. In this way, *Eunoia* thematizes its own reception as an artwork whose appreciation invites disinterested reflection.

Nowhere is this more clear than in the deaths that conclude each chapter. We have already witnessed how Hassan dies: "alas, alack: a shah has a grand mal spasm and, *ahh*, gasps a schwa, as a last gasp" (30). But if that gasp recalls Olga's fatal cry of "Maldiction!" in Perec's *La Disparition* – marked by the impossibility of uttering the vowel that kills her – it also recalls an ekphrastic tradition that associates the stillness of death with the breathless awe proper to the contemplation of works of art.⁴⁴ On the one hand, Hassan's death parodies the trope of ekphrastic reverence: to witness an "asthma attack" whose victim "barfs and farts" as he expires is both unglamorous and sadistically funny. But the image still enjoys a certain kind of awe (albeit vicariously) by suggesting that we should

indeed catch our breath, if not at the solemnity of death, then at the virtuosity of the parody. Helen's death is only hinted at (even if, *pace* Homer, she survives the fall of Troy): Chapter E ends simply "elle régne éternellement," but as with Chapter A, her passage from life to death is partly ekphrastic. Painted images gradually eclipse her living person: "When Vermeer sketches les belles femmes de Delft, he remembers Helen ... When the sketchers (Erté, Ernst, Klee, Léger – even Bellmer) render les événements des rêves, these esthetes get felt pens, then sketch her presence" (49). That presence, moreover, inspires awe of the kind we usually feel for art: "Men see her elven slenderness, then pledge themselves her serfs." Chapter U, lewd and irreverent almost to the bitter end, relents in its final line with the elegiac image of a shipwreck: "[G]ulfs crush us, gulp, dunk us – burst lungs succumb" (81). Like Eliot's "Lovesong of J. Alfred Prufrock," whose final stanza turns from its speaker's self-obsessed doubt to an anonymous we who spontaneously perish in the sea ("[t]ill human voices wake us, and we drown"), Chapter U ends by abandoning the absurdist escapades of Jarry's Ubu in order to posit a community of readers united by the image of their mutual death. *Eunoia* thus forms a kind of loop - from Hassan's "last gasp" to Ubu's "burst lungs" - that prompts our own response to the work: the hush of reverence, perhaps, or the author's sigh of exhaustion.

Exhaustion – but not resignation. The last gasp of *Eunoia* is more akin to what John Barth, writing of Borges's story "Pierre Menard," calls "an image of exhaustion" (73): the feeling that literature has exhausted its potential, which itself is a powerful literary trope capable of overcoming the exhaustion it describes. The imaginary solution that Bök

invents is to write a book that figures its own composition as a process of crushing fatigue, one that thwarts any desire to recuperate fatigue as a byproduct of meaningful work. But the tedium of Eunoia emerges not only from Bök's own narration of his Sisphyean labor, but also from within the seemingly affectless, cerebral system that the book itself constructs. Like other works of Oulipian and conceptual poetry, *Eunoia* displays what Eve Meltzer (writing of conceptual art) calls "affective investment in disaffected mastery" (14): the pleasure or displeasure we take in Bök's effort to wrangle language into an idea of order (an effort, as we have seen, that is programmed to fail) becomes part of the work's constitutive tension between procedural rigor and affective texture. In this way, Eunoia falls short of reinscribing the lyric/avant-garde divide on which conceptualism stakes its polemic, refusing any simple antagonism between, on the one hand, post-romantic conceptions of poetry as a space of imaginative free play and, on the other, avant-garde and poststructuralist efforts to equate the poetic as such with the inhuman materiality of language. It is through Bök's rigidly impersonal procedure that the aesthetic and affective dimension of the text emerges, a dimension that shares with lyric poetry a strategic neglect of purpose. If the Oulipo are too often accused of forsaking the emancipatory power of art for crossword puzzles and language games, Eunoia stands as a poignant reminder that aesthetic play and the emergent play of constrained systems are not principally opposed: in Bök's words, the lipogram dons its straight-jacket in order to allow language, released from the injunction to mean, to "express an uncanny, if not sublime, thought" (103).

4. NOTHING LOOPED:

CAROLINE BERGVALL'S "VIA"

In a series of reflections on Perec's unfinished project *Lieux*, the poet Caroline Bergvall observes how his use of time as a constraint exposes his writing to contingency and variation, eventually leading to the project's abandonment. Describing one of the few published excerpts from this work, "Tentative d'epuisement d'un quartier parisien," collected in *L'infra-ordinaire* (alongside that other tentative inventory of everything he ate and drank for a year), she writes:

A *tentative* is as tentative as an attempt. Open to the fallibility of an experiment that ties writing to a contingent, unpredictable investment in social space and time. How does one invest oneself in all the comings and goings-on at street-level of various Parisian quarters? ("Constraint" 44)

Bergvall remains ambivalent towards the more orthodox readings of the Oulipo that inform conceptual poetry, which equates constraints with axioms or algorithms whose execution is a merely perfunctory affair. If *Eunoia* concludes with a tribute to Perec that identifies the French author with the lipogram conceived as law or dogma ("nevertheless, Perec's creed gets expressed; nevertheless, Perec's tenet gets preserved" [100]), Bergvall instead reads his attempts to chart the infra-ordinary as a futile struggle against incompletion. ⁴⁵ Constraint neither guarantees the seamless execution of a work nor insulates the writer from the contingency of the world he describes. Bergvall later quotes Paul Virilio's portrait of Perec (with whom he co-founded the journal *Cause Commune*) as

a situationist *flâneur* who wanders the streets of Paris with an ear attuned to the *bruits de fond* or ambient noise of the city that engulfs him. Although Bergvall situates these writings "at the most anodyne, anonymous, yet structured level possible," this structure also allows Perec to register the contingent effects of time on the body and embodied memory: "Structuring time spent in sites, in places, is simply structuring the oncoming of forgetting" ("Infraordinary" 102–3). More aligned with the reading of Perec that I present in my first chapter, then, Bergvall characterizes constraint-based writing as a productive tension between the tentative and the exhaustive, countering the way that conceptual poetry (at least in its most canonical guise) seeks to bracket contingency.

The tension that Bergvall finds in *Lieux* – between the momentum of its durational constraint and the tentative (and ultimately unfulfilled) promise of its execution – also animates her most explicitly constraint-based poem. In "Via: 48 Dante Variations," she transcribes and collates English translations of the first tercet of the *Inferno*, using all the editions housed in the British Library before May 2000 – exactly seven centuries after Dante is said to begin his journey. Discounting latecomers and manuscripts under restoration, she collects forty-seven versions in all, alphabetizes and numbers them, and removes all paratextual details except the author's surname and the date of publication. What emerges, in her own words, is a "musicalised sense of panic ... a perfect plot in the massing of time." The haunting refrain of the same words repeated again and again with subtle yet telling variations gives readers the sense that we too, like Dante, are lost in a dark wood. Here is the original Italian, followed by the first five tercets:

Nel mezzo del cammin di nostra vita mi ritrovai per una selva oscura che la diritta via era smarrita.

- 1. Along the journey of our life half way
 I found myself again in a dark wood
 wherein the straight road no longer lay.
 (Dale, 1996)
- 2. At the midpoint in the journey of our life I found myself astray in a dark wood For the straight path had vanished. (Creagh and Hollander, 1989)
- 3. HALF over the wayfaring of our life, Since missed the right way, through a night-dark wood Struggling, I found myself. (Musgrave, 1893)
- 4. Half way along the road we have to go, I found myself obscured in a great forest, Bewildered, and I knew I had lost the way. (Sisson, 1980)
- 5. Halfway along the journey of our life I woke in wonder in a sunless wood For I had wandered from the narrow way (Zappulla, 1998)

First composed as a score for digitally-processed voice (in collaboration with the Irish composer Ciíaran Maher) and later published in *Chain* magazine alongside other seminal works of conceptual poetry, "Via" is both a poem and a work of new media – despite (or perhaps because of) the fact that it was written entirely by hand. Generated by a constraint that determines every dimension of its form in advance, the poem demonstrates what Craig Dworkin calls the "proleptic" character of texts by human authors that nevertheless "anticipate the computerized new media that would seem to be their ideal vehicle"

("Imaginary" 30). In this sense, "Via" deviates from a high modernist poetics that often invokes Dante (and medieval poetry in general) as a metonym for craftsmanship and innovation. Eliot's famous epigram to the Wasteland ("For Ezra Pound, il miglior fabbro": the better craftsman, Dante's praise for the troubadour Arnaut Daniel in *Purgatorio* xxvI) gives way to the figure of the scribe or the scrivener who aspires merely to copy rather than to create. If Eliot's epigram registers a sense of *agon* or competition among friendly or not-so-friendly rivals (implying that Pound is *il miglior fabbro*, but Eliot the better poet), Bergvall's poem works to systematically dissolve any hierarchy or logic of succession among the authors it compiles: poet translators (Pinsky, Longfellow, even Rosetti, whose version Pound praises in *The Spirit of Romance*) are lost amid the rabble of so many anonymous others, reduced to a string of surnames that echo and chatter like the personae trapped in the *Inferno* itself. This tension between singular innovation and divergent translation plays off an infamous crux in the original tercet: as Leo Spitzer observes, Dante finds himself ("mi retrovai") precisely in the middle of our life ("nostra vita"), a doubling effect that encompasses the poem as a whole and gives the texture of singular experience to an allegorical journey that is shared by all.⁴⁷ "Via" extends this analogy between the singular *mi* and the plural *nostra* to a contemporary milieu where poets freely sample the words of others in an effort to dissolve the authority of the lyric voice – or rather to register the way in which new media at the turn of the millennium (and the remix culture that accompanies their emergence) render an enduring belief in lyric ontology both impossible and obsolete.

Even as the poem works to deskill poetic labor, then, dismantling the modernist vision of the poet as singular craftsman, it also engages with an emergent poetics of the database. Bergvall enumerates and alphabetizes the translations into an index that permits random access, inviting readers to skim and skip among the various stanzas without privileging the original tercet as the only viable point of departure. And while this indexical structure promises a semblance of order, a way of disambiguating an otherwise vertiginous array of copies, Bergvall ultimately sabotages her index by making its interface unusable. Disregarding more conventional indices such as the author's surname or the date of publication, the poem instead alphabetizes each translation by its first letter, transforming the left margin into a string of repetitions (seven lines begin with half, eleven with in, nineteen with *midway*, and four with *upon*) whose indexical principle forecloses at the outset any imaginable use. Like the giant S on first page of *Ulysses* (severed from the word stately on the next verso), the first letter of each stanza bears a merely contingent relation to the text that follows, calling attention to its own graphic and phonetic texture (with a nod to the drop capitals and rubricated initials of illuminated manuscripts) while, at the same time, thwarting the accessibility of the very system it instantiates. Just as Eunoia provides an interface to the dictionary that delights readers precisely to the degree that it could never help them locate specific words (since its lexicon is entirely monovocalic and its sequence is narrative rather than alphabetical), "Via" turns the list into a literary and aesthetic form by divesting it of any instrumental value. As Perec does with enumeration, she unravels a highly technical form – the alphabetical index – by extending its principle

to an absurd extreme.

Although Bergvall remains ambivalent about her association with conceptual writing, "Via" shares with poems such as *Eunoia* an effort not only to borrow formal structures from new media, but also to disrupt their systematizing logic. In "The Imaginary Solution," Craig Dworkin argues that conceptual poetry (as well as its precursors among the Oulipo and the Collège de 'Pataphysique) reveals errors and glitches within the edifice of the database that undermine its fantasy of seamlessly integrated data:

[The absurdity generated by constraints] points to the inevitable discontinuity between all generalized systems and the incongruous individuals those systems are meant to account for; to the alienation of each concrete experience from the narratives of normalcy meant to absorb it; to the proscriptive inadequacy of descriptive schemes. In literary terms, these works contrast a formal rigidity, guaranteed by their preestablished rules, with the fluid interchangeability of the content structured by that form. (38)

The preceding chapters have all furnished examples of this mode of critique: Perec's attempt to inventory his annual diet, which runs aground on the etcetera of appetite (a theme that returns in Bergvall's "Fried Tale," a list of every mention of food and drink in Chaucer's *Canterbury Tales*); Calvino's dialectic between the algorithmic logic of chess and the suspended time of ekphrasis in *Invisible Cities*; and, perhaps most relevant here, Bök's distillation of the dictionary into a poetic reverie that renounces its own desire for disaffected mastery through the nimble play of the vowels. More minimalist and understated than any of these projects, "Via" is no less relentless in its deconstruction of the database genre, tugging at the seams not only of Dante's epic (whose authority unravels in the face of its endless variations) but also of the list that gives these variations

their form. A handful of recurring elements (*journey*, *road*, *myself*, *life*) serve as a leitmotif that throws each deviation into greater relief: the wood is by turns *obscure*, *sunless*, *gloomy*, *darksome*, *dusky*, or *shadowed*; the road is either *lost* or *misplaced*. Like Gertrude Stein's injunction to begin again, Dante's epiphany ("I found myself again") echoes throughout these translations as a reminder that no two are alike, that there is no such thing as repetition. Recalling Perec's definition of enumeration as a perennial tension between perfection and incompletion, Bergvall describes the way that error threatens to corrupt her seemingly irrefragable procedure:

Surprisingly, more than once, I had to go back to the books to double-check and amend an entry, a publication date, a spelling. Checking each line, each variation, twice. Increasingly, the project was about keeping count, making sure. That what I was copying was what was there. Not to inadvertently change what had been printed. To reproduce each translative gesture. (*Fig* 65)

Each variation is itself threatened by variation, differing not only from the original Italian but also from itself, twice transcribed and so exposed, even if exactly copied, to the difference inherent in repetition. The poem's subtitle ("48 Dante Variations," although there are only forty-seven) implies that even the original tercet, cited as an epigram at the top of the text, constitutes a variation, an origin devoid of originality, no more and no less authoritative than the multitude of translations it inspires. In this flat network of stanzas, ordered only by the arbitrary sequence of the alphabet and linked by the irregular echo of a refrain, no voice, no version, has priority over any other. The order promised by the list (and the encyclopedic ambitions of the medieval epic it distills) converges with a dispersion of registers and dialects. Not even alphabetization – our most ubiquitous and

indomitable method of organizing text – can reabsorb the centrifugal force of a poem that seems determined (no less than Perec's tentative inventories) to dismantle the very principle on which its form depends.

In the essay cited above, Dworkin goes on to argue that conceptualism's détournement of new media also works to expose forms of information management that subtend more sinister projects such as mass surveillance, drone warfare, and (more recently, with the advent of Web 2.0) the commodification of the affective labor performed by online communities. In this way, he offers a riposte to the widespread objection that conceptual writing is politically disengaged and naïvely optimistic about the emancipatory potential of digital technologies. Yet there is a danger here: if the political stakes of conceptualism are tied to its ability to expose the structural artifice of systems larger than itself, that is, to function as a *symptom* of new media, this desire for exposure also threatens to re-inscribe the very phenomenon it sets out to critique. This is what Eve Sedgwick calls "paranoid reading" (123): the ways in which literary and cultural critics feel compelled to expose the complicity of literature with historically-conditioned structures of power. Paranoia in this sense is highly contagious: the impulse to expose an object that is itself concerned with exposure – digital surveillance, for example – partakes of that object's own desire to withdraw to a vantage that affords unchecked mastery. If the critical work of conceptualism is to register a widespread paranoia about the politics of digitization, it risks adopting those politics as its own.

For Sedgwick, the real danger of paranoid reading is not that it misses its target, that

our suspicion will turn out to be unjustified or misplaced. The danger is that paranoia leaves no room for other modes of reading (including "the weaving of intertextual discourse" [150]) that serve to sustain precarious selves and communities in a world that is indifferent to their nurture. Sedgwick describes an alternative practice of "reparative reading" that might offset our discipline's obsession with critique: to suspend judgement, to read with the grain, in ways that "assemble and confer plenitude on an object that will then have resources to offer an inchoate self" (149). This reparative impulse also has a temporal dimension, assembling fragments of the past into eclectic heaps that are "not necessarily like any preexisting whole" (128). Such assemblages cannot be totalized or normalized precisely because they are belated and asynchronous – which is to say, as Elizabeth Freeman adds in a gloss on this passage, "we can't know in advance, but only retrospectively if even then, what is queer and what is not" (xiii).

Repair has been a key concept for queer theorists who seek to oppose normative regimes of time that are constitutive of modernity (the linear time of reproductive genealogy, the cyclical time of domestic labor). If, as Freeman argues, modernity compels us to move in lockstep with historical time (or what she calls "chrononormativity"), yolking lived experience to temporal regimes that are irreversible, teleological, and homogenous, we can also break out of this regimen by engaging in reparative practices that cut across time and imagine temporal modes that are wayward and nonlinear. This is partly why queer temporality has enjoyed such a rich following among medievalists: the medieval (or the premodern more generally) often appears as the term that modernity

must exclude in order to delimit itself as adequately secularized and disenchanted.⁴⁸ The endurance of the medieval within the modern or the contemporary, then, registers a profound dissatisfaction with concepts of modernity that are defined by historical progress and enlightened critique.

In this light, "Via" performs a mode of queer time not only by rewriting a medieval text and its modern afterlives, but by doing so within a poetic form that is structurally asynchronous. By alphabetizing the text, Bergvall disrupts the historical chronology of the translations, charging the gap between each tercet with a leap backwards or forwards in time. Such leaps are formally marked both by rapid variations in style (by turns archaic, minimalist, or colloquial) and by the fluctuating dates, positioned emphatically at the end of each stanza, that punctuate our time travel even as their rhyming digits form a sort of unifying refrain (1989, 1893, 1998, 1993). On the one hand, these points of temporal rupture look back to the paratactic, collage-based techniques of the modernist epic: Pound's Cantos, for example, partly modeled on Dante's Commedia, assembles fragments of text from disparate moments of history, where the gap or cut between each pair of fragments, as with cinematic montage, radically disrupts our sense of linear time. But Bergvall's poem, by contrast, works to dull the disruptive force of parataxis, its potential to shock, demystify, or estrange. Absent here are the aggressive shifts in dialect, register, voice, or syntax that poets of the Pound era use to roughen the texture of language in an effort to emancipate readers from automatized habits of perception. Bergvall alters her sources as little as possible: the diction and syntax of the poem, while sometimes archaic

or obscure, always remains legible, and paratext such as names or dates, unlike the notoriously obfuscating footnotes to the Wasteland, form a complete (if radically disordered) system of reference. Her original performance of the poem, dirge-like and mellifluent, accompanied by a subharmonic drone synthesized from her own voice, sutures the otherwise hetereoglossic stanzas into a continuous stream of vocables. Hers is what Tan Lin calls an "ambient poetics," a mode of appropriation that foregoes "radical disjuncture" and the "shock effect of montage" for an aesthetic or even anesthetic experience that is "relaxing, boring, absorptive, sampled freely and without effort." The ambient texture of "Via" emerges partly through the miscellany of affects invoked by the translations: for Musgrave, Dante is struggling; for Sisson, bewildered; for Zappulla, he wakes in wonder. None of these words appears in the Italian (which says nothing about how Dante *feels*, only that he is lost) and yet as a group they index the very feelings of struggle, bewilderment, and wonder that readers are apt to experience as they wend their way among the maze of variations. The cumulative force of these affects properly belongs neither to the medieval poet nor to any of his translators: unmoored from any one persona, affect circulates freely among the stanzas and across the many centuries they encompass. Like the denizens of the *Inferno*, who each suffer alone and yet form a chorus by virtue of their mutual inclusion in the poem, the network of feelings at play in "Via" gives rise to a community of asynchronous voices that forestall the normative momentum of historical time.

Bergvall's method of assembling divergent texts without provoking shock or

estrangement also recalls theories of the lyric as an unheroic or inconsequential genre, suspending narrative time without making this suspension a model for redemptive action. Read this way, the queer time of "Via" resides less in specific moments of temporal rupture than in a pervasive disinclination to move forward. Bergvall does again and again what she has already done, copying the same words in minimally different combinations, often returning to the Library to double-check her work. This gesture of doubling back, of retracing one's steps, mirrors the suspended temporality of the poem: like Dante lost in the dark wood, the time of transcription lags behind not only the text being copied, but also the copy itself, which is never self-identical or wholly at rest. We encounter here, in Bergvall's words, less the "causal horror of linear travel" than "a narrative of structure, stop-start, each voice trying itself out, nothing looped, yet nothing moving beyond the first line, never beyond the first song, never beyond the first day" (ctd. in Perloff 39). The poem enacts the *retrouvai* of Dante's original tercet, as the conflicted *I* finds himself again and again amid a catalogue of texts that have themselves been refound.

Comparing her work to the practice of digital sampling in electronic music ("stop-start ... nothing looped"), Bergvall imagines a very different form of temporality than that of conceptualism's procedural logic. The poem suspends epic momentum for lyric inconsequence, a time where nothing happens (or that *makes* nothing happen), withdrawing from the demand for redemptive action or narrative progression.⁴⁹ Bergvall lyricizes the *Inferno*, although hers is a lyric whose scene of solitary repose – a poet alone in the woods – is routinely thwarted by the proximity of other voices that resemble,

without ever being equivalent to, his own. If there is a modernist Dante at play here, it is not Eliot's *miglior fabbro*, tied, as I have argued, to the heroic rivalry of poets vying for the right to succession, but Belacqua, the indolent persona of *Purgatorio* IV (and a recurrent figure in Beckett's novels and plays), who neglects to ascend the steps to Purgatory because, as he says, "O frate, andar in sù che porta?" ("O brother, what good would climbing do?" [127]). "Via" assumes a similarly inoperative pose, Belaqua's indolence – not, as for Dante, a vindication of his sin, but a disarmingly equivocal refusal to undertake decisive action or perform meaningful work.

There is a minimal yet crucial difference between such unheroic agency and conceptualism's desire to supplant the lyric voice with the impersonality of a literate machine. "Via," to be sure, follows a programmatic logic that determines much of its structure in advance, but that logic also comes undone through its own figures of asynchrony, stoppage, and impasse. Readers are not forced to choose (as the rhetoric of conceptualism often implies) between unexamined complicity with the inhuman abstraction of digital systems, on the one hand, and, on the other, an avant-garde tactics that seeks to expose the contradictions of new media through radical forms of mimesis. Bergvall instead shows how the modes of temporal rupture that emerge from her alphabetical list thwart the sequential time both of the epic it rewrites and of enumeration itself – a refusal, in short, to make time count.

5. PALIMPSESTS OF THE LYRIC:

JEN BERVIN'S NETS

Even the cover of this book bears traces of erasure. No title or author, no blurb, only a letterpress print of a honeycomb enframed in a black rectangle – a distant echo, perhaps, of Kazimir Malevich's *Black Square*, a void where paratext might otherwise appear, reduced to a thumbnail no larger than a matchbox. Inside the cover is another sort of absence: a line, or a fragment of a line, either not yet fully inked or already so faded you have to squint to make it out:

THE SON**NETS** OF WILLIAM SHAKESPEARE

Like the frontispiece of a damaged incunable, this title (printed, as with the title of the 1609 quarto, in majuscule) announces its contents even as it bears witness to their decay. *Nets* indeed contains the Sonnets, or sixty sonnets, which, like the title, are considerably redacted. Designed and typeset by Bervin herself (in collaboration with Anna Moschovakis), the book shares with her other work an abiding concern with the texture of inscription: in *The Desert*, for example, reprinting John Van Dyke's 1918 novel of the same name, Bervin obscures most of the text by machine-sewing blue thread in a zigzag across each page, weaving a new poem out of the tatters that remain. The *Silk Poems*, her most recent project, is fabricated on a nanoscale biosensor made of liquefied silk, designed to be implanted under the reader's skin and invisibly absorbed into her body. Erasure, these works suggest, is not so much a technique that Bervin performs *on* a text, but rather a

negativity inherent in inscription itself: all writing is fated to fade, every text is a palimpsest that can be wiped out and overwritten. *Nets* bears this out at the level of typography: copying each sonnet verbatim, Bervin prints some words in a boldface font and others in a halftone ink (as with the title above), as if the text were fading into the page, leaving a new poem in its wake.

Nets joins a tradition of erasure poetry that includes, among other precursors, Tom Phillips' 1970 A Humament (after W. H. Maddock's 1892 novel A Human Document, which Phillips obscures by painting new artworks on every page), Ronald Johnson's 1977 Radi os (after Milton's Paradise Lost), and Stephen Ratcliffe's 1989 (where late the sweet) Birds Sang (also based on Shakespeare's Sonnets). Although Nets warrants comparison with these other works – especially *Radi os*, which I will say more about in a moment – the book also emerges at a historical and technological moment when the capacity of inscriptive media to be erased and overwritten is especially apparent, when palimpsests both figurative and literal underwrite the ways in which data bunkers and cloud servers promise to guard our thoughts against decay. With a title that echoes *network* and *internet* even as it encodes the half-erased word *sonnets*, 50 the book shares with other procedural works composed at the turn of the millennium an urgent if largely implicit attempt to respond to the rise of digital networks and the new forms of writing they make possible. This is one reason why *Nets* is often framed in dialogue with conceptual poetry: copied verbatim from a hypercanonical author, *Nets* aligns with the conceptualist tactics of sampling and remixing the words of others, even courting analogy with more radical

(read: Duchampian) forms of appropriation that aim not only to copy, but also to desacralize and disfigure the masterpieces they sign as their own.⁵¹

CORROSIVE POETICS

Before reading *Nets*, however, it is worth briefly revisiting one of its most conspicuous precursors, the most widely cited example of erasure poetry in English and one that, based on another hypercanonical Renaissance poem, offers a useful foil for approaching Bervin's work. Ronald Johnson's *Ra dios*, first published in 1977, is an erasure of the first four books of *Paradise Lost*, filtering the baroque diction of the original into a modernist epic composed of sparse images and syntactic fragments. The cover bears witness to its procedure: printed in blackletter, the ornate letters of Milton's title are blotted out with a black sharpie, reducing *Paradise* to *Radi* and *Lost* to *os*. Although the body of the poem completely removes unused words, the front matter includes an example that, like *Nets*, preserves the original as a faint shadow beneath the revision, allowing readers to see the two versions in stereo:

Of man's first disobedience, and the fruit Of that forbidden **tree** whose mortal taste Brought death into the World, and all our woe, With loss of Eden, till one greater Man Restore us, and regain the blissful seat, Sing, Heavenly Muse, that, on the secret top Of Oreb, or of Sinai, didst inspire That shepherd who first taught **the chosen** seed In the beginning how the heavens and earth Rose out of Chaos: or, if Sion hill Delight thee more, and Siloa's brook that flowed Fast by the oracle of God, I thences Invoke thy aid to my adventurous song, That with no middle flight intends to soar Above the Aonian mount, while it pursues Things unattempted yet in prose or rhyme. (ii)

Johnson retains the gist of the proem while reducing its already terse summary to a handful of scattered words. Erasing the generic invocation to the Muse, he discovers a different form of apostrophe by truncating the opening line – "Of man's first disobedience," in which Milton announces his epic theme – to a single vocative *O*.

Addressing the *tree* that now stands apposite *Man*, this new invocation joins Milton's image of Christ ("one greater Man," who, like a tree, reaches upward from earth to heaven) to a word that evokes both the Edenic root of original sin and the wooden cross on which that sin will finally be redeemed. More crucial than this biblical epitome, however, is the way in which Johnson condenses the long arc of Milton's plot, encapsulated in miniature in these opening lines, into an even more compact form that nevertheless retains its principle argument. *Radi os* is more an exercise in reduction than in excision: what matters most is not what Johnson cuts away, but what he leaves behind, which the absence of the former throws into greater relief. In this light, these opening lines also constitute a

reflexive description of the erasure itself: the chosen (words) rise out of chaos (from the Greek $\chi \acute{\alpha}o\varsigma$: the primordial void, the abyss into which God casts Satan, and the whitespace into which, and from which, Johnson expunges words) to form another poem, another *song*, that the original implicitly already contains. As with Bervin's rendition of Sonnet 130, the word *rose* takes on a double meaning here: as a homophone of the noun *rose* (and the etymon of *rosary*, after the flower's association with the Virgin Mary), it mirrors the tree that grows "into the World"; as the preterite of *rise*, it is the first of countless images of ascension in Milton's epic, a fitting analogy for the way in which the text of *Radi os* appears to rise, like a relief sculpture, from the formless ground of the text it elides.⁵²

The topology of figure and ground, of surface and depth, that *Radi os* extracts from *Paradise Lost* – a powerful metaphor for Johnson's process of redaction and reduction – resurfaces in much of the critical commentary on the book, in turn shaping debates around erasure poetry as a genre. In his preface to the first edition, Johnson himself suggests that erasure constitutes an act of excavation or exposure, drawing upon an intertext that has since become a touchstone for scholars of his work:

[*Radi os*] is the book that Blake gave me (as Milton entered Blake's left foot – the first foot, that is, to exit Eden), his eyes wide open through my hand. *To etch* is "to cut away," and each page, as in Blake's concept of a book, is a single picture. (ix)

A visual artist as well as a poet, Johnson alludes to Blake's practice of etching copperplates with nitric acid, a way of reproducing multicolor books by hand without the prohibitive cost of printing by letterpress. As an analogy for poetic erasure, corrosive engraving

oscillates between addition and subtraction, creation and destruction, which Blake's version of the technique enacts in three major phases: first, the etcher draws on the plate with a protective liquid; second, he dips the plate in aquafortis, corroding the parts of the surface that remain exposed and leaving behind a relief or intaglio inscribed in the copper; and third, he inks the plate and presses it onto the page, imprinting a positive (albeit reversed) copy of the original drawing.⁵³ Recalling that etching is a form of excision (from German ätzen, cognate with eat), Johnson emphasizes the subtractive dimension of this practice: the aquafortis (technically called a *mordant*, that which bites) creates a singular impression, "a single picture," by eating away the superfluous material in which it is embedded. But Blake also adds something to the plate – the mordant, before corroding the copper, forms a supplemental layer, an outer film – and the final stereotype, in turn, serves to print new copies, to reproduce an existing image. In *The Marriage of* Heaven and Hell, Blake plays with this additive valence of corrosion by suggesting that acid, rather than simply effacing its medium, also reveals a subtext that is otherwise invisible:

But first the notion that man has a body distinct from his soul, is to be expunged; this I shall do by printing in the infernal method, by corrosives, which in Hell are salutary and medicinal, melting apparent surfaces away, and displaying the infinite which was hid. (xxii)

For Blake, corrosive reproduction is a revelatory act: the infernal printer does not so much *create* new works as discover, like a sculptor chipping away a raw block of marble, a hidden form that lies latent beneath its surface. When Johnson compares his excision of

Paradise Lost to Blakeian intaglios, he suggests that erasure, more than corrupting or eroding the original, unveils an even more originary text concealed within its core.

Critics have made much of this analogy between poetic erasure and corrosive engraving. In Reading the Illegible, Craig Dworkin writes that "the technique of treatment in Radi Os is not unrelated to Blake's own mode of book production," citing the way that descriptions of infernal acid in the poem "rhyme with Blake's similar metatextual references to processes by which he created his extraordinary illuminated books" (214). In his afterword to *Radi os*, Guy Davenport elaborates upon Johnson's allusion to Blake, recalling that the latter also rewrote *Paradise Lost*, first as *Vala*, or *A Dream of Nine Nights* and again in his epic *Milton* (94).⁵⁴ (Dworkin adds that the frontispiece of the latter, originally printed as "MILT ON", resembles the split title of *Radi os*, itself a fragment of the letters in *Paradise Lost* [214].) For Davenport, Johnson continues Blake's own project of "correcting and amplifying Milton" (94), except that, having corrected (or redacted) most of the original, he abstains from adding anything new. As Travis MacDonald echoes this rhetoric in arguing that, "where Blake saw fit to amplify Milton, Radi os is concerned instead with *muting* [him]" (51). Davenport goes on to figure erasure as a sort of excavation:

The poem we are reading is still Milton's, but sifted. The spare scattering of words left on the page continues to make a coherent poem, Milton *imagiste*. (Wordsworth and Blake did the same thing to the poem, except that they filled up the spaces again with their own words.) (100)

Like an archeologist, Davenport implies, Johnson sifts an imagiste poem out of the

baroque rubble of the original. Erasure is a matter of discovery (or rather *invention*, in the etymological sense of the word, which, as Davenport observes, means finding again): "He found a poem inside another poem. All he had to do was remove the superfluous words" (103). Dworkin draws a more explicit analogy between poetic erasure and archeological discovery, arguing that texts like *Radi os* register a profound sense – already at work in Milton's "postlapsarian epic" – of "entropic loss, eliminating and erasing their source texts like the erosion and decomposition of mineral structures" (132). Although *erosion* implies an organic process that unfolds without the interference of an external actor, Dworkin also suggests that Johnson catalyzes and accelerates this process in an effort to unearth a poem that lies buried beneath the surface: "Johnson combs Milton's text to disentangle his own text lost inside it" (129). Steve McCaffery similarly describes Radi os as "a poem found among unlinked words and phrasal in the opening four books of *Paradise Lost*," a process of "finding and extracting" that "presents an unfamiliar text within a text, present in *Paradise Lost* but via habitual reading unseen" (124). McCaffery goes on to relate this archeological metaphor of erasure as extraction to the Blakean practice of acidic engraving:

Radi os, as Blake's gift to Johnson, is the product of a corrosive poetics, a relief composition transposing Blake's graphic method into typographic textuality, burning away large areas of the surface text with the aquafortis of Johnson's own imagination. Utilizing his source poem as a lexical supply a process of selected deletions and excavations takes place to arrive at Johnson's own poem as a reduced, alembicated form of *Paradise Lost*. (125)

Note the use of excavation here (like Davenport's sifting): although McCaffery stresses the

"negativity involved in this method as a production through *loss*," he also suggests that erasure uncovers something that was already there, or, with another metaphor, "a reduced, alembicated form of *Paradise Lost*," an essence that has been distilled, purified, from the ore of the original.

Corrode, erode, disentangle, distill: all of these metaphors characterize poetic erasure as a revelatory (or paranoid) practice that seeks to unveil a hidden truth or latent subtext within a canonical poem. The analogy between erasure and exposure suggests that rereading and rewriting disarmingly familiar texts serves less to make them say something new than to discover a ciphered message that was already there – or in Dworkin's words - "the way in which the source text ... makes reference to the treatment that it has always implicitly contained" (135). At the same time, however, erasure adds something to the text it erases: a form of annotation or commentary on a text that is no longer extant, erasure supplements the original by revealing a message that is latent in the text but that only becomes legible when everything around it is expunged. This is partly a constraint imposed by the medium. Erasure poets typically compose first drafts by marking sections to be erased (with pencils, pens, whiteout, or, in A Humament, with paint), telling typesetters and designers which parts to omit and which to retain (even if, as with Nets, the designer is the poet herself). In an interview for the *Chicago Review*, Johnson recalls how he composed *Radi os* by writing directly on the page: "I went to the bookstore and bought *Paradise Lost*. And I started crossing out" (43). Asked about his progress on later sections of the epic – Radi os ends with Book IV – he answers: "I've done v and I've

pencilled in up to VIII" (44). That the omissions are pencilled in as well as crossed out, that erasure is a form of annotation as well as a form of excision, also shapes how readers encounter the finished work. The first review of *Radi os*, published by William Harmon in 1981, compares the experience of reading the text to "the migraine-provoking chore of looking at a library book that some fool has 'high-lighted' with one of those pink or yellow marking pens (225). Beyond the rather banal accusation that Johnson defaces Milton (a charge leveled at countless other avant-garde revisions of canonical texts), Harmon observes that the words on the page, against a whitespace filled with the imagined backdrop of Milton's epic, appear as highlights superimposed on the original, much as Johnson pencils in the passages he intends to preserve. This additive or supplementary dimension of erasure forms part of the paratext of Radi os: the front matter includes a draft of the first page of *Paradise Lost* with the excised letters faded but still visible, so that the words preserved by Johnson seem to be printed over the original text (iv). In "Corrosive Poetics," McCaffery cites this page but replaces the faded text with a strikethrough font, observing that erasure involves "a fundamental negativity ... a production through loss" (125), even though his own reproduction of the text in a block quote calls attention to the fact that erasure (whether by printing in strikethrough or corroding with acid) typically involves adding another material to the text in order to mark what words or passages are to be redacted.

With an eye to the material affordances of erasure, Dworkin argues that such works exhibit a sort of supplemental logic in which the erased text (which is secondary, belated, or derivative) paradoxically appears to precede the original from which it derives.

Dworkin cites the protagonist of *A Humament*, Bill Toge, whose surname is a fragment of a half-erased *together*, as "a perfect emblem of this constantly shifting dynamic of presence and absence":

Whatever his associations with loss and rupture, Toge is also an index of supplementary. If not, by itself, a familiar English word, "toge" is the conventional transliteration of the common Russian word *moжe*: "also," "as well as," "too." Like most of the works discussed in this book, that "also" is the hallmark of the treated text's appropriation. Keeping both source and derivative simultaneously in view, and making visible the traces of that doubled presence, the treated text is less a parasite on its source than a pair of sights. (136)

A pair of sights, that is, because the experience of reading erasure poetry is inherently binocular, where the original and its erasure are visible side by side, if not always in perfect focus. The whitespace where text has been erased continues to surround, like a marginal commentary, the text that remains. In this way, erasure reverses the intuitive relation between text and paratext, original and supplement: on the one hand, the remaining text, a cluster of words enclosed in whitespace, exhibits the authority of a body text, a framed artifact; on the other, the whitespace calls to mind the erased original (as Harmon suggests in comparing *Radi os* to a highlighted library book), an absent trace that appears to supplement (and therefore to follow or derive from) the body text it enframes. The fragment paradoxically appears more complete, more cogent, than the original it supplants, a refined or purified core ("Milton *imagiste*," as Davenport says of *Radi os*), and the original, by comparison, resembles a baroque imitation that amplifies the original with needless additions. On the one hand, for all of these critics, erasure establishes a topology

of surface and depth in which the poet unearths a latent signification within the source text by filtering out (or *sifting*) extraneous material. On the other hand, as Dworkin observes, erasure supplements and supplants the original, calling its originality into question and revealing the degree to which the source text is itself fragmentary and incomplete.

READYMADE ERASURE

The idea that erasure poetry is a form of exposure or discovery – in which the poet appropriates, from within another text, a readymade poem that was already there – informs the way that more recent works of erasure poetry, and *Nets* in particular, are often framed in relation to conceptual poetry. Vanessa Place and Robert Fitterman, for example, begin their manifesto-like survey of the genre, *Notes on Conceptualisms*, by invoking erasure as a limit case that drives the need for a more nuanced definition of the conceptual. Fitterman writes in the foreword:

In the winter of 2008, at a launch for *The noulipian Analects* (C. Wertheim. and M. Viegener, eds., Les Figues Press, 2007), Vanessa Place, Anna Moschovakis, and I were engaged in a conversation about the poetics of erasure techniques. There was some question as to whether or not erasure strategies would fit under the rubric of conceptual writing. Depends on the end result, we agreed, more than the writing strategy itself: i.e., is the poet employing this technique to reach for a larger idea outside of the text, or is the poet primarily concerned with making a new poem out of the erased one with its own local meaning? Or, conversely, are both things happening, or don't both things have to happen, or is there a ratio, a spectrum, of how much the new text relies on some kind of "thinkership" outside of the text itself? (11)

Compared to rote transcription, the most iconic technique associated with conceptual

poetry, erasure offers the poet a greater degree of freedom to sculpt the text into a novel creation, "making a new poem out of the erased one with its own local meaning" - a poem, that is, whose rhetorical texture and formal artifice reward close reading and whose value does not depend upon the reader's knowledge of its generative procedure. Johnson, for example, reprints excerpts of *Radi os* within his multivolume epic ARC without calling attention to the fact that they are erasures of *Paradise Lost*: unlike *Radi os*, which includes both a foreword and an afterword framing the text in relation to Milton's epic, the reprinted versions elide this paratext and present the erasure as an original composition to be read on its own terms. Erasure, moreover, is rarely programmatic. Two poets erasing the same text, or even the same poet erasing the same text, often produce wildly divergent results. Of all five editions of Tom Phillips' A Humument, for example, which paints over (and thereby renders illegible) much of the text of W. H. Mallock's 1892 penny-dreadful A Human Document, no two are alike: for each new version, Phillips traces a different path through his source text, obscuring words that the other editions retain, or retaining ones they obscure. Fitterman and Place suggest that the indeterminacy inherent in erasure runs against the grain of a conceptualist aesthetic in which no authorial decisions are left to chance. It is chance that gives authors the freedom to erase texts in ways that lyricize or relyricize them as poetry – to "mak[e] a new poem out of the erased one with its own local meaning." Is the erased text there to be read as a poem (that is, to be read at all, and read closely) or to be thought as a concept? Does the text invite a readership or a thinkership? It is in the latter sense, Place and Fitterman suggest, that erasure resembles the signature

gesture of conceptualism, the art of plucking a readymade from a sea of existing text:

Note the similarities between Kenneth Goldsmith's appropriation triptych – *Traffic, The Weather*, and *Sports* – and Jen Bervin's *Nets*, a book of poems that perform erasure on Shakespeare's sonnets. Goldsmith adds the artist/author to the readymade quotidian, upping its art-quotient; Bervin subtracts the master from his masterpiece, author from authority. (30-1)

If erasure is an act of exposure that reveals the supplemental logic at the heart of the original (and thereby deconstructs its originality), it does so, according to Fitterman and Place, by revealing that the original is already a copy, a readymade – waiting to be reframed as an aesthetic object. The effect is amplified when the text being erased is a hypercanonical poem: Bervin performs a Duchampian operation on the Sonnets by subtracting the words of their author (and therefore "the master from his masterpiece, author from authority") while at same time asserting her own mastery over the poem, her own authorship, by appropriating and signing the Sonnets as her own.

But this is a reading that Bervin pushes back against. In a 2017 interview for *Asymptote*, she challenges the way in which *Nets* is often categorized as conceptual poetry in ways that preclude a reading of the work on its own terms:

With *Nets*, if you are so minded, you could be dismissive of the idea of the book – a palimpsest of Shakespeare's sonnets – but when you actually read it, that's harder to do; it becomes moving and strange. *Nets* is often framed in conversations around conceptual writing, which is one aspect of it, certainly, but there are many aspects of those poems that diverge from it. I strongly prefer having the complexity of the work there to create a conversation, rather than responding to a particular critique of doing work that is relational.

Framing *Nets* as purely conceptual threatens to reduce the text to a soundbite – "a palimpsest of Shakespeare's sonnets" – while foreclosing sustained attention to "the

complexity of the work" itself. To read the book as a "readymade quotidian," as Fitterman and Place do, is to suggest that the gesture of appropriation, rather than the texture of the appropriated text, constitutes the proper object of critical reflection. Bervin challenges this ethos by inviting close reading – not only of her erasure, but also of the dialogue it opens up with its source text, which persists underneath and alongside her revision. Rather than seeking to appropriate Shakespeare (or "subtract the master from his masterpiece"), she pushes readers to think about the loss inherent in erasure: "I empathize with omission and the omitted. It's one of the reasons why I don't feel so great about the term erasure, because I'm trying to draw attention to loss, not create it." This empathy for the omitted runs against the grain of the erasure genre, where the act of erasure (like the act of appropriating the text to be erased) typically constitutes a tactic of estrangement, serving to *détourne* an archaic or canonical text that centuries of rereading and interpretation have rendered disarmingly familiar. Following Bervin's invitation to read *Nets* as much for the Sonnets she erases as for the gesture of erasure itself, I will argue that the text pushes back both against its reception among conceptual writers as a readymade appropriation of Shakespeare and against the prevailing notion of erasure as a practice of discovering a hidden origin within a manifest source. Bervin eschews the topology that is implicit in both of these models: rather than seek to find, unearth, or distill a readymade poem from beneath the surface of another, Nets calls attention to the way that loss and erasure already permeate the language of the Sonnets, approaching the text as a collaborator, or an assemblage of collaborators, rather than an adversary or predecessor whose legacy must

be appropriated, profaned, and thereby overcome.

BEING MANY

Bergvall's "Via," I have argued, unravels the agon of succession by flattening all of the Dante variations into a list without chronology – a list that also includes the original and puts its originality in question. Nets yields a similar effect by retaining Shakespeare's text beneath and alongside her own (not *before*, as in a facing-page translation, where the original, printed on the verso, comes first). If anything, the order is reversed: printed in boldface, Bervin's version is the foreground, the focal point, poised to capture the reader's attention and shape her reading of the poem as a whole. Shakespeare's version, by contrast, seems to fade into the background: although both texts occupy the same plane of the page (and even the same text block) – neither is technically in front of the other – the contrast between bold and halftone type evokes surface and depth, figure and ground. The erased text surrounds each poem like a marginal commentary, as if Bervin wrote the bold versions first and later filled in the whitespace with annotations – whose weight, fainter than graphite, makes them seem ephemeral, erasable. The original appears to come after its variant, a supplement that completes each poem and, at the same time, frames it as a fragment, a sample. Fragmentary and elusive, Bervin's poems call out for elucidation, a call that Shakespeare's words – now an afterthought, a postface – appear to answer.⁵⁵

Nets opens with a palimpsest of Sonnet 2 that modestly reflects upon the project as a whole:

When forty winters shall besiege thy brow,
And dig deep trenches in thy beauty's field,
Thy youth's proud livery, so gazed on now,
Will be a tattered weed, of small worth held:
Then being asked where all thy beauty lies,
Where all the treasure of thy lusty days,
To say, within thine own deep-sunken eyes,
Were an all-eating shame and thriftless praise.
How much more praise deserved thy beauty's use,
If thou couldst answer, 'This fair child of mine
Shall sum my count and make my old excuse,'
Proving his beauty by succession thine.
This were to be new made when thou art old,
And see thy blood warm when thou feel'st it cold.

Despite its distant echo of the Poundian injunction to make it new, the poem abjures the *agon* that such remaking implies. Unlike Pound, who imagines an active (read: virile) poet who acts upon passive material with transitive force, an act of will that reforges the past and *makes* the dead speak (whether they want to or not),⁵⁶ Bervin frames her remaking in the passive voice: the Sonnets invite revision, they *ask* to be new made. At the same time, she erases Shakespeare's comparison – one of the overarching polemics of the Sonnets as a whole – between poetic making and reproductive life: addressing a young man whose beauty is fated to fade, the poem promises to commemorate (and thereby immortalize) his beauty and, at the same time, incites him to bear a child through whom his image will live on (to "prov[e] his beauty by succession thine" [12]). To be remade is to not just to reproduce, but to *be* reproduced – to be written, copied, read, and rewritten, an iterative process that is – although Shakespeare's text attempts to evade this conclusion – prone to error and deviation. The passive construction – "to be new made" – underscores this analogy between inscription and reproduction, between the mechanical and the organic:

life, in the Sonnets, is an endless cycle of rewriting and reprinting, a lineage of copies, a genealogy of images.⁵⁷ By framing her remaking of Shakespeare as an invitation rather than a transgression, erasing all mention of genealogy and shifting the referent of *made* from child to poem (amplifying the vehicle of Shakespeare's metaphor while eliding its tenor), Bervin at once challenges the notion of writing as an anxiety of influence and suspends the reproductive logic on which this notion relies: that of the poem as a child through whom the beloved – his memory, his image, and his "warm blood" – will live on.⁵⁸

Sonnet 8 performs an even more radical erasure of this genealogical metaphor:

Music to hear, why hear'st thou music sadly?
Sweets with sweets war not, joy delights in joy;
Why lov'st thou that which thou receiv'st not gladly,
Or else receiv'st with pleasure thine annoy?
If the true concord of well-tuned sounds.
By unions married, do offend thine ear,
They do but sweetly chide thee, who confounds
In singleness the parts that thou shouldst bear.
Mark how one string, sweet husband to another,
Strikes each in each by mutual ordering;
Resembling sire, and child, and happy mother,
Who all in one, one pleasing note do sing;
Whose speechless song, being many, seeming one,
Sings this to thee: 'Thou single wilt prove none.'

The original sonnet turns upon a conceit between melody and marriage: the triad of "sire, and child, and happy mother" (with an allusion to the Holy Family and the Christian promise of eternal life) is a harmony of notes sounding in unison – the strings of a lute that, tuned to the same frequency, vibrate sympathetically without being plucked. The

sonnet ends on a cautionary note: if the bachelor refuses to marry and bear children who extend the duet of marriage into a choir of successors (a multitude that seems to form one line, one melody) - his solo performance will fade, and he will die alone ("Thou single will prove none").⁵⁹ As if fulfilling this morbid prediction, Bervin erases the young man whom Shakespeare addresses – as well as the tenor of the musical conceit that urges him to marry. Without this frame, the conceit refers instead to the poem itself, whose parts – three fragmentary lines, separated by whitespace – strike in unison, a singularity composed of multiple parts. The poem is a "speechless song" not just in the banal sense that all lyric poetry courts analogy with music (a song, even by Shakespeare's time, played to the tune of the printing press rather than that of the lyre), but also because erasure composes a new song out of the Sonnets by rendering Shakespeare selectively mute. Together, the remaining lines and the stricken text form another pair of strings that vibrate in unison: the erasure describes not just its own parts but also the relation between source and revision, between Shakespeare and Bervin, between a world that knows only "well-tunèd" music and one that is no stranger to dissonance. 60 Strike becomes more forceful in this context: not just to pluck a string or strike a bell, but to excise text from a record, to flag redactions with a strikethrough font, and – more radically – to refuse to work (another form of union that joins many into one). Bervin's désœuvrement of Sonnet 8 strikes out its reproductive logic – its conceit of harmony as family and melody as succession – for a more capacious notion of the many as a multitude, a form of being-incommon that seems one without eliding the difference, the singleness, that makes each part unique.

With this figure of *being many*, Sonnet 8 amplifies Bervin's remark in the postface that poetry is inherently multiple, that every poem carries vestiges of anonymous others:

I stripped Shakespeare's sonnets bare to the "nets" to make the space of the poems open, porous, possible – a divergent elsewhere. When we write poems, the history of poetry is with us, pre-inscribed, in the white of the page; when we read or write poems, we do it with or against this palimpsest.

Bervin reverses the normative relation between singularity and multiplicity: the point is not that marriage makes one of many (or many of two) – that two individuals, joined in matrimony, become the font of a lineage – but rather that one is *already* many, that every singular text is inherently multiple because it permits (or even invites) a countless assemblage of possible readings and rewritings. As with "Via," where the divergent paths of Dante translations reveal a self-difference at work in the original Italian (which the poem presents as one of its own variations), Bervin implies that her erasure of the Sonnets could be one of many, that another poet, or indeed herself, could find a myriad of different poems hidden within the same text. *Nets* reimagines the Sonnets as one node in a network rather than an origin from which all others derive, a community of poets and multiplicity of poems that erasure reveals to be "open, porous, possible – a divergent elsewhere." She abjures the teleology of reproduction (both poetic and organic) for the relationality of the palimpsest. She does not rewrite Shakespeare so much as write over (and therefore with and through) a text that lives on through its own erasure. In this sense, *palimpsest* is both a metaphor for intertextuality writ large – "all that sets the text in a relationship, whether

obvious or concealed, with other texts," as Gérard Genette asserts in his magisterial study of the subject (1) – and a physical affordance of inscriptive media, which can literally be erased and overwritten (although the line between the literal and the figurative – given that the palimpset-as-metaphor almost always appears in writing – proves difficult if not impossible to enforce). Bervin contends that all texts are palimpsests, that all writing is relational: erasure merely brings to the surface the net of interwoven links that makes a canon more than the sum of its archives. It is because the Sonnets are ductile enough to morph and adapt to their future readers – poets and critics alike (who in turn carve their own paths among their myriad figures and forms) – that they survive, altered, if not by Bervin's eraser, then by the shifting contexts and shifting paradigms in and through which they continue to be read.

ERASABLE MEDIA

The palimpsest, however, is more than just a metaphor for erasure. Like other early modern writers, Shakespeare used a more palpable kind of erasable medium, one that informs the complex interplay between memory, inscription, and loss in the Sonnets. A descendent of the wax tablet of antiquity (no longer in widespread use after the rise of paper notebooks), the erasable tablets used in early modern England consisted of pasteboard coated with a mixture of gesso and glue, making a surface from which ink, graphite, or silverpoint – with the help of a sponge or a wet fingertip – could easily be erased (Stallybrass 388). Erasable notebooks were used to record information that writers

could edit and abridge before copying it into the more durable (and more expensive) medium of the codex. In a remarkably erudite article on the role that such notebooks play in *Hamlet*, four experts on the history of the book – Peter Stallybrass, Roger Chartier, John Franklin Mowery, and Heather Wolfe – argue that the erasable tablet also serves as a metaphor for human memory, where the ability to remember presupposes (and converges with) the ability to forget. In the final scene of Act I, for example, when the ghost of the murdered king commands his son to vouchsafe his memory – "Adieu, adieu, Hamlet. Remember me" (1.5.91) – the prince responds by vowing to erase all other thoughts from his mind, as if from an erasable tablet:

Remember thee?
Yea, from the table of memory
I'll wipe away all trivial fond records,
All saws of books, all forms, all pressures past,
That youth and observation copied there,
And thy commandment all alone shall live
Within the book and volume of my brain
Unmixed with baser matter. (1.5.97-105)

The passage opposes two models of memory – the ephemeral palimpsest and the durable codex – in an effort to make the latter seem both more transcendent ("[u]nmixed with baser matter") and more solid, like a book, or better, like a stone tablet inscribed with a biblical "commandment," mediating between the material and the sacred. If the "table of memory" is full of juvenilia that can be trivially copied and erased, the "book and volume" of Hamlet's brain is by contrast an indelible medium that will preserve the ghost's command from corruption and decay. The very suggestion that memory is erasable,

however, also implies that this singular thought might in turn be overwritten, as the authors of the article suggest in their reading of the play: after Act III, the ghost no longer appears onstage – and it is the jester Yorick, not King Hamlet, whose death the prince goes on to commemorate. The book of the brain proves as vulnerable and ephemeral as the erasable surface it promises to supplant: if Hamlet, at a whim, can excise the trivia of his youth, nothing prevents his father's memory from fading away in turn. Erasable tables "work only because they make writing *impermanent*" (Stallybrass 415): they are "memorial prostheses" that paradoxically "memorialize the ability to forget" (Stallybrass 413). Both as a metaphor for human memory and as a medium of literary inscription, the palimpsest is able to encode information only by presupposing its loss. It is only because memory can be rewritten *over* that it can written (or read) at all:

Such a supplement suggests the difficulty of making any complete separation between remembering and forgetting. A technology of memory, the tables are also a technology of erasure. (Stallybrass 417)

A fitting analogy for Hamlet's melancholy – a compulsive mourning that, unlike grief, seeks to preserve the lost object by rehearsing the impossibility of its return – the palimpsest also embodies the commemorative economy of the Sonnets, which promise to keep the memory of the beloved alive by endlessly lamenting his mortality. In a coda to their reading of *Hamlet*, the authors offer a reading of Sonnet 122, which turns around the figure of the erasable notebook and its double valence of remembrance and oblivion. Here is Bervin's version:

Thy gift, thy tables, are within my brain Full charactered with lasting memory, Which shall above that idle rank remain Beyond all date, even to eternity – Or at the least, so long as brain and heart Have faculty by nature to subsist; Till each to razed oblivion yield his part Of thee, thy record never can be missed. That poor retention could not so much hold, Nor need I tallies thy dear love to score; Therefore to give them from me was I bold To trust those tables that receive thee more. To keep an adjunct to remember thee Were to import forgetfulness in me.

The sonnet meditates upon a gift that the poet has received from his beloved – an erasable table – and muses that, although memories inscribed on this physical medium will fade, the memory of the beloved inscribed in his own brain will not. Echoing Hamlet's fraught attempt to distinguish between durable and erasable forms of memory, the poet is forced to concede that human memory is only as permanent as the mortal body it inhabits: "Till each [brain and heart] to razed oblivion yield his part / Of thee, thy record never can be missed." The poem concludes by dismissing the need for "an adjunct to remember thee": a supplement that vouchsafes the memory of the beloved by reducing him to a fragment that also threatens, as the next line observes, to "import forgetfulness," to rely upon a medium that is inherently prone to decay – an idea that has already been undercut by the image of human memory as itself a form of inscription, a writing on the body: "Thy gift, thy tables, are within my brain / Full charactered with lasting memory." In the end,

Stallybrass and his co-authors argue, the poem fails to allay the fear that memory might be as supplemental, as prosthetic, and ultimately as erasable as the adjunct medium it

purports to replace.

Bervin retains this ambivalence in her erasure: on the one hand, *bold* self-reflexively invokes the boldface that marks the words she preserves, which promise to live "[b]eyond all date," emboldened and revived with each new printing (where the boldface evokes a text that has been printed over itself, the letters thickened by multiple copies superimposed on the same page); on other hand, the paratactic structure of the poem eliding both the subject (who or what is bold, if not the bolded words?) and the implied copulative between this absent subject and its predicate (simply *bold*, not I *am* bold or my words are bold) – calls attention to the erasure of any persons or bodies whom this bold text might commemorate. The poem has neither subject nor being, only an unmoored sense of boldness – a mark of mechanical reinscription – that testifies to the way that memory survives "[b]eyond all date" only by printing over (and thereby erasing or obscuring) another text that lies beneath it. Shakespeare's words, like the erasable tablet they describe, remain as "an adjunct to remember thee," a supplement, printed in halftone (the typographic opposite of boldface, a font that has not been printed *enough*, as if the ink in the printer cartridge were running dry), that bears witness to its own disappearance. Remembrance persists not because the human brain, in contrast to inscriptive media, is capable of "lasting memory," but because the poem as palimpsest can be erased and written over, iterated and altered with each new printing, so that what remains, emblazoned in bold, is only a trace of the fading letters it overwrites.

Loss & Loss

Other poems in *Nets* tie this notion of the inherent erasability of inscriptive media – the notion that writing presupposes the possibility of its own loss – to the more overtly elegiac or melancholic sense of loss that animates the Sonnets, striving as they do to defer the inevitability of old age and death through the medium of lyric commemoration. Consider Sonnet 64, for example, a poem that seems to presage, from the vantage of Elizabethan London, the 9/11 terrorist attacks on the World Trade Center:

When I have seen by Time's fell hand defaced The rich proud cost of outworn buried age, When sometime lofty towers I see down-razed, And brass eternal slave to mortal rage; When I have seen the hungry ocean gain Advantage on the kingdom of the shore, And the firm soil win of the wat'ry main, Increasing store with loss and loss with store; When I have seen such interchange of state, Or state itself confounded to decay, Ruin hath taught me thus to ruminate—That Time will come and take my love away. This thought is as a death, which cannot choose But weep to have that which it fears to lose.

Through its chiastic play between *loss* and *store*, Shakespeare's text compares the youthful beauty of the beloved to a hoard of riches whose abundance, appearing to vouchsafe its future, makes it all the more vulnerable to decay. Bervin elides the tenor of this metaphor, erasing the beloved altogether, and elevates its vehicle, the down-razed towers, to an image of a singular catastrophe, an event too traumatic to justify comparison with

any form of loss other than itself. By removing the *and* between *loss* and *loss*, she makes the doubled word *loss* into an image of the twin towers – or rather the twin voids they leave in the Manhattan skyline. Like Kenneth Goldsmith's *The Day* – a transcription of the *New York Times* edition published the morning of 9/11, which contains uncanny premonitions of the catastrophe that, at the time of printing, had yet to strike 62 – Nets unearths, buried in the rubble of Shakespeare's verse, a lament for events that will not unfold for another four centuries. The emphasis falls less on the razing of the towers, however, and more on the duplication of loss – a sort of *fort da* game that seeks to revive what is lost by repeating the word that marks its absence. The deletion of *and* removes *loss* from any form of relation: loss, in this poem, makes itself felt only through repetition, not conjunction – only through the disjunct, the cut, of parataxis. That cut extends from the spatial to the temporal: the poem disrupts chronological time by projecting loss into the past, a past that precedes not only the loss itself but also the construction of its object. The original line - "Increasing store with loss and loss with store" - forms a chiasmus in which store increases (rather than diminishes) the potential for loss: the more you have, the more you have to lose. 63 The sonnet goes on to suggest, however, that this loss is reversible – not by amassing more of the same, but by entrusting the memory of the beloved to a medium more suited to its preservation: poetry – and the minds of its living readers – abjures loss by re-inscribing the lost object in memory (and, through grief, the memory of its loss) – a medium that outlives any manmade structure, any tower that time or fortune will inevitably raze to the ground. Bervin erases this bittersweet consolation, trading *store* for

loss, memory for melancholy. She short-circuits what Jahan Ramazani calls the "compensatory economy" of elegy (71) – one moment grieving the dead, the next announcing that the dead live on – by erasing both the solace of commemoration and the promise of resurrection. What lives on is loss itself, or the twin words *loss*, the remainders of an erasure that they alone survive to document.

Nets transforms the Sonnets' praise for the power of poetry to immortalize the beloved (by figuring reproductive life as a form of endless reinscription) into an elegy for the possibility of enduring memory and for the lyric voice that performs the labor of commemoration. Where the Sonnets play upon an opposition between the threat of loss (a double threat: of dying in obscurity and of dying without children) and the promise of immortality – and of a medium durable enough to let one live on indefinitely – Nets lops off the second half of this dialectic and leaves nothing but loss (or twin losses) in its wake. Li is easy to read this emphasis on loss as a reflexive comment on the act of erasure (and therefore as a veiled origin, an uncanny prediction of the erasure procedure itself). But loss also resonates in these poems with a melancholia that compulsively refuses to give up its object – because that object can only be preserved by means of a constant reinscription.

In elegy, the poet's own death is always at stake. And because death is an experience that delimits – and so is excluded from – life (the Epicurian paradox: "when death comes, we no longer are"), elegies that intimate the death of the self inevitably invoke the ineffable: unable to imagine (and therefore mourn) their own death, poets instead lament

the impossibility of mourning.⁶⁵ This paradox also animates Bervin's palimpsest of Sonnet 63, where the manifold senses of erasure at play in the book (of life, of memory, and of media) converge:

Against my love shall be as I am now
With Time's injurious hand crushed and o'er worn;
When hours have drained his blood and filled his brow
With lines and wrinkles; when his youthful morn
Hath travelled on to age's steepy night,
And all those beauties whereof now he's king
Are vanishing or vanished out of sight,
Stealing away the treasure of his spring;
For such a time do I now fortify
Against confounding age's cruel knife,
That he shall never cut from memory
My sweet love's beauty, though my lover's life;
His beauty shall in these black lines be seen,
And they shall live, and he in them still green.

Like many of the sonnets that precede it, Shakespeare's text laments the fact that the youth's beauty will fade until he is as old and withered as the poet himself (when "my love shall be as I am now / with Time's injurious hand crushed and o'er worn") and promises, in the sestet, to redeem this loss by reviving him (or rather his "beauty"), "which shall in these black lines be seen, / And they shall live, and he in them still green." Bervin erases everything in the sonnet that contributes to this redemptive promise: she turns a love poem into an elegy (or reveals that it already was an elegy), but also makes the mourning reflexive: unmoored from any object that might give it purpose, from the commemorative economy between lover and beloved, the bereaved and the grievable, the lyric I mourns only itself. But whose self? Is Shakespeare speaking here, lamenting the way in which his

words, among the "black lines" of Bervin's palimpsest, have faded into a halftone ink that appears to vanishing – if not already vanished – from the surface of the page? Or is it Bervin who, by suspending her ability to write in her own lyric voice, to add any words of her own, vanishes into Shakespeare's text? The or between vanishing and vanished renders this question undecidable: there is no anterior moment when Bervin will have finished her erasure of Shakespeare, when the bard will have vanished without a trace and Bervin, having signed the book in her name, will have succeeded, in the words of Place and Fitterman, in "subtract[ing] the master from his masterpiece, author from authority." The conceptualist gesture of appropriating a readymade text implies a temporality of succession not unlike the agon of influence: to subtract Shakespeare (the most authorial of authors) from his own work is to appropriate his authority and become an author in his place. Bervin deviates from this logic – in which the act of appropriation re-inscribes the very authority it appears to subvert – by making her I and Shakespeare's I impossible to disentangle. The poem opens a set of recursive frames: Shakespeare immortalizes the vanishing beauty of the beloved, Bervin immortalizes the vanishing I of Shakespeare, and the reader, in turn, gives new life to both by reading the two texts against one another – a gesture that future readers may endlessly repeat. The lyric I, like the palimpsest itself, is multiple, divergent – the subject of "speechless song," as Sonnet 8 has it, "being many, seeming one." The lyric I lives on by suspending itself between the process of vanishing - the condition of a palimpsest that can always be erased and given new life - and the finality of death, which the conjunctive *or* indefinitely postpones. The poem forecloses any reading that separates the living author from the dead, successor from predecessor, the black lines from the halftone traces of the text they only partially occlude. By leaving Shakespeare's text as a trace beneath her own, *Nets* invites readers to let Bervin's version vanish from their minds and forge their own path through the Sonnets, to make them what they already were: "open, porous, possible."

NOTES

1. There is some irony in the fact that introductions to the art of constraint-based writing often commence by enumerating summaries of exemplary works, given that many of the works in question are themselves structured as lists. A recent issue of *McSweeney's*, for example, announces the publication of the Oulipo anthology *All That Is Evident Is Suspect* with the following litany:

INSIDE: Sharks as poets and vice versa, the Brisbane pitch drop experiment, novel classifications for real or imaginary libraries, the monumental sadness of difficult loves, the obsolescence of the novel, the symbolic significance of the cup-and-ball game, holiday closures across the Francophone world, what happens at Fahrenheit 452, Warren G. Harding's dark night of the soul, Marcel Duchamp's imperviousness to conventional spacetime laws, bilingual palindromes, cartoon eodermdromes, oscillating poems, métro poems, metric poems, literary madness, straw cultivation.

For a literary example of this sort of breathless catalogue, see Darren Wershler-Henry's *Tapeworm Foundry*, a poetic list composed entirely of instructions for generating works of art and literature, ordered at random and sutured together by the unpunctuated conjunction "andor." The text begins mid-sentence (with a citation from *Finnegans Wake*):

jetsam in the laminar flow andor find the threads in redhats andor litter a keyboard with milletseed so that exotic songbirds might tap out their odes to a nightingale andor transcribe the letters pressed onto the platen when stalactites drip on the homerow keys andor reconstruct the ruins of a bombedout capital i andor reinvent the canonic works of western art as a series of roadsign glyphs andor commission an artist to paint the large ass of marcel duchamp andor use a dotmatrix printer to sound out a poem in which each line is a series of pauses whose length is determined by formatting codes and then record the squeal and lurch of the printhead moving across the paper and then replay the noise and then have it transcribed as chamber music for cello or voice andor compose a text acknowledging that words are fourdimensional objects in spacetime andor write an essay on the collected works of jane austen treating the text as a tour de force lipogram that never once makes use of any characters in the sinhalese alphabet ... (7)

And so on.

2. In his preface to the anthology *Against Expression*, Craig Dworkin draws this distinction between *thinkership* and *readership* – which has since become a

commonplace in criticism on conceptual poetry – in reference to the paintings of conceptual artist Mel Ramsden, whose series *100% Abstract* "continue[s] to enunciate the move from works seeking an embodied viewership to those eliciting a mental thinkership" ("Echo" xxix).

3. For the origins of this term, see Rosalind Krauss, "Two Moments from the Post-Medium Condition" and "Reinventing the Medium." Reading Walter Benjamin's famous essay on photography ("Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit") against the backdrop of conceptual and post-conceptual art, Krauss suggests that, for Benjamin, photography's erosion of the aura of the image marks not only a specific moment in the history of technical reproduction but, more radically, the general dissolution of differences among the arts and among media that defined modernist aesthetics. What withers with photography, Krauss argues, is not just aura but also

the idea of a medium as such, a medium as a set of conventions derived from (but not identical with) the material conditions of a given technical support, conventions out of which to develop a form of expressiveness that can be both projective and mnemonic. And if photography has a role to play at this juncture, which is to say at this moment of postconceptual, "post medium" production, Benjamin may have already signaled to us that it is due to its very passage from mass use to obselesence. ("Reinventing" 296)

Coined for the first time in quotation marks (as if citing another source – a symptom, perhaps, of the role that iteration and appropriation play in the logic of new media), the phrase *post medium* here also echoes Friedrich Kittler's theory of media convergence at the beginning of *Gramophone*, *Film*, *Typewriter*:

Before the end, something is coming to an end. The general digitization of channels and information erases the differences among individual media. Sound and image, voice and text are reduced to surface effects, known to consumers as interface. Sense and the senses turn into eyewash. Their media-produced glamour will survive for an interim as a by-product of strategic programs. Inside the computers themselves everything becomes a number: quantity without image, sound or voice. And once optical fiber networks turn formerly distinct data flows into a standardized series of digitized numbers, any medium can be translated into any other. With numbers, everything goes. Modulation, transformation, synchronization; delay, storage, transposition; scrambling, scanning, mapping – a total media link on a digital base will erase the very concept of medium. Instead of wiring people and technologies, absolute knowledge will run as an endless loop. (1-2)

For a critique of Kittler and Krauss, see Mark Hansen, *New Philosophy for New Media*, which challenges these theorists for failing to acknowledge the ways in which the body,

and especially embodied cognition, "continues to be the active framer of the image, even in a digital regime" (xvii).

- 4. For a philosophical response to the crisis of automation (which, by some accounts, threatens to render half of the global population unemployed in a matter of decades), see Bernard Stiegler, *Automatic Society*. My argument builds upon Stiegler's sustained critique of the fact that, today, almost all human activity is encoded "in the form of binary numbers and hence as *calculable* data, forming the base of an automatic society in which *every* dimension of life becomes a functional agent for an industrial economy that thereby becomes *hyper-industrial*" (19-20).
- 5. See, for example, Christine Wertheim and Matias Viegener's introduction to the noulipoean Analects, an anthology of reflections on neo-Oulipian poetics, which opposes both the Oulipo and 1960s conceptual art to the body-centric performance art of the 1970s. The editors also echo a familiar opposition between constraint-based practice and the post-romantic lyric that will become, in the hands of conceptual poets, something of a creed:

At one level, the interest in voluntarily adopted restrictions is clearly motivated by an attempt to avoid the romantic narcissism of much traditional bourgeois literary production. (Confining oneself to a prescribed contrast naturally turns the writer at least some degree away from self-centered introspection. (1)

On the complicity between conceptual poetry and techno-capitalism, see Clover.

- 6. Here I echo the title of Franco Moretti's *Graphs, Maps, Trees: Abstract Models for Literary History*, one of a series of books in which Moretti applies his method of "distant reading" to the task of analyzing patterns in massive corpora of literary texts. Although Moretti's work has become a touchstone for digital humanists who use algorithms to visualize literary forms, Moretti rarely makes use of computers himself: the data for this book (as well as for the more recent *Distant Reading*) were collected by hand (often with the help of beleaguered graduate student researchers). In this sense, Moretti's work bears comparison with that of conceptual poets who make a spectacle of manually performing otherwise automable tasks including the processing of archives whose sheer bulk makes them all but unreadable. For a brief comparison between conceptual poetry and distant reading, see Ardam 136.
- 7. On the formative years of the group, see Warren Motte, "Raymond Queneau and the Early Oulipo," the essays and manifestos collected in *Oulipo: A Primer of Potential Literature*, Jacques Roubaud's introduction to the *Oulipo Compendium*, and for minute notes from the first meetings (delightfully replete with interruptions and interjections) Jacques Bens, *Genese de l'Oulipo: 1960-63*. My use of the word *potential*

literature as a standalone phrase also takes after the title of Daniel Levin Becker's *Many Subtle Channels: In Praise of Potential Literature*.

8. Giorgio Agamben develops a similar concept of potential as inoperativity in "Bartleby, or On Contingency." Sounding the many resonances of the scrivener's polite refusal ("I would prefer not to"), he argues that *potential* denotes, beyond the capacity to do or to be, a more radical capacity *not* to do or *not* to be. Potentiality rejects "the *principle of the irrevocability of the past* (or of the unrealizability of potentiality in the past)" (262): what is truly potential remains inexhaustible by its passage into actuality. Bartleby embodies this concept of unactualized potential:

As a scribe who has stopped writing, Bartleby is the extreme figure of the Nothing from which all creation derives; and at the same time, he constitutes the most implacable vindication of this Nothing as pure, absolute potentiality. The scrivener has become the writing tablet; he is now nothing other than this white sheet. It is not surprising, therefore, that he dwells so obstinately on the abyss of potentiality and does not seem to have the slightest intention of leaving it. (253-4)

Compare the character of Bartlebooth in Perec's *La vie mode d'emploi*, who spends his life painting seaside landscapes and making jigsaw puzzles out of them – only, in the end, to have them all chemically erased, returning each canvas (as Agamben might put it) to "nothing other than [a] white sheet." Bartlebooth is a sort of allegory for the ideal Oulipian, subjecting himself to an exacting constraint but leaving this constraint unrealized, negated. On the origins of his name (a portmanteau of Melville's Bartleby and Larbaud's Barnabooth) see Perec, *Entretiens et Conférences* 1, 288.

9. The preface to Chapman's translation in the *Oulipo Compendium* explains the calculation in more detail:

Start with the first line taken in isolation: there are, obviously, 10 alternatives or possibilities for it. When we now add a line, we know that each of the 10 first lines can be followed by any of the 10 second lines: this gives us $10 \times 10 = 100 \text{ (or } 10^2\text{)}$ possible combinations of two lines. Each of these combinations of two lines can in turn be followed by any of the 10 third lines, a step that will produce $10 \times 100 = 1,000 \text{ (or } 10^3\text{)}$ possible combinations of *three* lines. In similar fashion, every additional line raises the number of possible combinations by a factor of 10 until, with the 14th line, we attain 10^{14} possible combinations of fourteen lines, a number that can be variously written as 100 billion (UK), 100,000 billion (US), or 100 million million – a very large number however you write it. Queneau calculated that someone reading the book 24 hours a day would need 190,258,751 years to finish it. (14)

10. Poucel coins this phrase in a special issue of the online journal *Drunken Boat*, prefacing a selection of texts from the Oulipo and its successors across different arts and different media:

In this special feature of *Drunken Boat*, I have attempted to bear witness to several facts: that the Oulipo has authoritatively demonstrated the viability of thinking and realizing potentiality through the use of literary constraints, that this demonstration resonates with many skilled para-Oulipians who pursue similar strategies, and that the Oulipian excursions into fields of potentiality have encouraged artists and thinkers in other realms to embark on their own conscious experiments in freedom.

- 11. The Swift Standard Library defines *enumerated()* as a function that "[r]eturns a sequence of pairs (n, x), where n represents a consecutive integer starting at zero, and x represents an element of the sequence." Enumerating the first line of Perec's "Inventory" would produce the following array: [(1, "Nine beef consommés"), (2, "one iced cucumber soup"), (3, "one mussel soup")]. In an unrelated sense, Swift also defines enumeration as "a common type for a group of related values."
- 12. Although Perec never used a computer himself, David Bellos observes that "the *concept* of a thinking machine played a significant role at a key stage in his development as a writer, and provided him with material and a model for some of his most experimental work" (38). In 1966, together with Marcel Bénabou, he invented a theoretical device that could generate literature by taking a passage as input and replacing every substantive with its dictionary definition, transforming Wordsworth's famous line ("I wandered lonely as a cloud") into a far more nebulous utterance ("I wandered lonely as a mass of watery vapor suspended in the upper atmosphere") (Bellos 39). Although the machine called PALF (or *production automatique de littérature française*) was never built, Bellos cites it as "the first explicitly mechanical device entertained by Perec for the production of literary texts," one that first attracted the attention of Raymond Queneau and led to Perec's invitation to join the Oulipo (40).

Perec also came into contact with paper-based systems of information retrieval (still operated by hand, although later automated with a punchcard system) in his day job as an archivist and low-level administrator (codenamed "technicien III B") at the Neurophysiological Research Laboratory in Paris. Bellos argues that the mechanical tasks of archiving and cataloguing – as well as his first-hand experience of government bureaucracy – inform some of his most programmatic texts. Foremost among these is a flowchart, co-authored with programmer Jacques Perriault and sponsored by the Humanities Computing Center of the French National Research Council, entitled *The Art and Craft of Approaching Your Head of Department to Submit a Request for a Raise* (42-3). In a letter to his German translator Eugen Helmlé, Perec describes this project and its algorithmic logic:

It consists of a certain number of propositions that can take either yes or no for an answer, each answer having certain consequences. The concatenation of causes and effects and the choice of answers are represented by arrows that are the only syntactic connectors between the propositions. In brief, it is a tree structure, a network, a labyrinth, and the "reader" chooses one route among all the possible routes, the totality of possible routes being presented SIMULTAENOUSLY on the flow-chart. (ctd. in Bellos 43)

In 1968, again collaborating with Helmlé, Perec composed a short radio play for the Saarländischer Rundfunk entitled *Die Maschine*. Presented in the voice of an imaginary computer, the monologue simulates a computational analysis of Goethe's "Wandrers Nachtlied II." The machine, we are told, comprises "a number of programs that enable it to approach the poem from different directions, to grasp it in all its diverse aspects, and to execute various linguistic operations that present the poem in a new light" (ctd. in Wolff, "Oracle" 90). Bellos suggests that *Die Maschine* "is probably among the first works of any kind to bring the *idea* of humanities computing into the literary field" (42).

This idea has not always met with enthusiasm. Mark Wolff, the author of several essays on the Oulipo and computation, argues that *Die Maschine* demonstrates an "almost naive optimism in the power of computation to both analyse Goethe's poem and synthesise it within a canon of world literature" (91). Wolff finds no irony in suggesting that, "[f] or Perec, 'the essence of poetry' can be apprehended through sufficiently elaborate mechanical means" (92). Bellos, on the other hand, maintains that Perec dons programmatic constraints precisely in order to expose the contradictory logic of the mechanical and the calculable – an argument I develop in my own reading of Perecqian enumeration (and one that does not depend upon the biographical or philological claim that, as Wolff avers, "Perec clearly understood how computers worked" [91]). Although Wolff elsewhere tempers this position by arguing that constraints "enable Perec to separate mechanical reasoning from indeterminate exceptions in order to define the boundaries of the algorithmic and the incalculable" (91), the argument relies upon the very binary logic it attempts to subvert: to *separate* the mechanical from the exceptional, to *define* the boundaries between them, is itself a mechanical procedure that divides the world into pairs of absolutes. On the contrary, Perec's writing bears witness to the entanglement of these categories: it is precisely through and within programmatic constraints that contingency reveals itself in the form of errors, slippages, and omissions. Although none of the lists I read in this chapter engage directly with the context of computing, they share with the texts cited above a profound sense of tension between their programmatic structure and their literary texture, one that resonates with the aporia inherent in computational logic without reducing that resonance to a merely biographical mode of reference.

For further historical accounts of Perec's interest in (and suspicion towards) computers, see Magné, "Perec et l'ordinateur," Wolff, "Reading Potential," and Wilken, "The Quick Brown Fox Jumps Over the Lazy Dog."

- 13. Like the unrepresentable, the unthinkable and the unsortable posit a limit to conceptual thought and linguistic expression. In this context, the term could also imply a mathematical limit: according to axiomatic set theory, every set must presuppose an empty set as one of its members, a category that is routinely left implicit (sometimes marked by the symbol ø, sometimes by empty brackets) but nevertheless legitimizes the set as a finite totality by marking all the other things it excludes. Giorgio Agamben invokes this aspect of set theory in *Homo Sacer* in order to describe the sovereign logic of the *exceptio* and its power to render the border between inclusion and exclusion or between law and extra-judicial force indistinct (23-5).
- 14. Johnson describes *enumeratio* in baroque poetry in similar terms: even as the proliferation of redundant elements threatens the coherence of such rhetorical lists (and the world of which they are a microcosm), redundancy "provides the necessary, material abundance out of which new thinking might emerge" (1111).
- 15. Johnson argues that asyndeton plays a significant role in Renaissance enumeration, citing an extreme example from Quirinus Kuhlmann's 1671 *Libes-Kuße*, "a sonnet in which enumerating parataxis becomes pure asyndeton, as it consists principally of a succession of nouns or adjectives with barely any conjunctions or grammatical complications" (1133). Johnson goes on to argue that this asyndetic structure allows the parts of the sonnet to be read or recombined in almost any order, forming "an inexhaustible combinatory machine" (1133) or "poetic machine" (1135). Although he does not mention Raymond Queneau at this point, whose *Cent mille milliards de poèmes* is just such a machine for generating sonnets by recombining a set of interchangeable lines, Johnson mentions the "experiments of the OULIPO" as one of the many "verse and prose forms that enumerate conjunctively, disjunctively, paratactically, hypotactically, mechanically, or haphazardly" and, in a footnote, gestures towards a connection between Italo Calvino's fascination with combinatorics and the *ars combinatoria* of Rámon Llull (1105).
- 16. We might compare this anomaly to the one that Foucault discovers in Borges's original list the category of animals "included in the present classification," a species that includes its own genus and so forms an infinitely recursive loop:

[I]f all the animals divided up here can be placed without exception in one of the divisions of this list, then aren't all the other divisions to be found in that one division too? And then again, in what space would that single, inclusive division have *its* existence? Absurdity destroys the *and* of the enumeration by making impossible the *in* where the things enumerated would be divided up. Borges adds no figure to the atlas of the impossible; nowhere does he strike the spark of poetic confrontation; he simply dispenses with the least obvious, but most compelling, of necessities; he does away with the *site*, the mute ground upon which it is possible for entities to be juxtaposed. (xviii)

17. By acknowledging that an et cetera can appear in the middle of a list, Perec also suggests that every list is inherently tentative, marked, as James observes, by an invisible et cetera:

Even in the most complete of Perec's lists, the "etc." remains implicit. Perec's enumerations rarely claim to be exhaustive; they are merely *attempts* at exhaustivity or at drawing up inventories ("tentatives d'épuisement" or "tentatives inventaire"). (212)

Magné discovers another et cetera in the index to the novella *Quel petit vélo*, which breaks off abruptly:

First surprise for the reader: this index breaks off inexplicably after 164 entries at the letter P, on the word "psittacism," immediately followed by an "etc., etc., etc." (74)

- 18. On the theme of food in Perec's work as a whole, see Magné, "Tentative," and Jullien. The only English-language article on the topic focuses solely on *W ou un memoire d'enfance*, making the surprising claim that "when we consider food as food in [Perec's] work, there is very little to sink our teeth into" (Wadhera 327) reading this absence psycho-biographically, as yet another allusion to the death of his parents. Perecquian cuisine is indeed marked by absence (such as the anonymous wines elided by the phrase "n vin divers" ["Inventory" 106]), but, as with all of his texts, this clinamen takes some elbow grease to discover: absence, in Perec, is never as blatant as a hunger strike or a missed meal.
- 19. James compares the use of enumeration in *Life A User's Manual* to its abiding concern with the "chaotic multiplicity of the world" (214). One of the most capacious lists in the novel, that of all the objects that tenants over the years have left on the stairs, exemplifies her larger argument that behind the exhaustive order of the Perecquian inventory lurks an irrepressible contingency:

The grouping of the elements makes no distinction between temporal succession ("over the years") and spatial contiguity ("on the stairs"), nor does it seem to obey any other discernable thematic or formal principle. Yet it is precisely in this apparent disorder that the meaning of the list is to be found: the bewildering series signifies the disconnectedness and heterogeneity of things and their enigmatic survival once their connection to their function in human life – and their links with other objects – have disappeared. (214)

- 20. Sturrock uses *miscellaneous* in his translation of *Species of Spaces*, but *sundry* in a later translation published in *Granta* magazine (92).
- 21. As an example of a hyperbolic list that collapses "the distinction between numerical and non-numerical enumeration," Johnson cites John Donne's "The Computation":

For my first twenty years, since yesterday, I scarce believ'd thou could'st be gone away, For forty more, I fed on favours past, And forty'on hopes that thou would'st they might last. Tears drown'd one hundred, and sighs blew out two, A thousand, I did neither think nor do, Or not divide, all being one thought of you; Or in a thousand more, forgot that too. Yet call not this long life; but think that I Am, by being dead, immortal; can ghosts die?

The poem, Johnson observes, "swiftly compiles 'twenty years' then 'forty more' and eventually a 'thousand' and then a 'thousand more' to hyperbolically express the sense of longing the poet has for his beloved since he saw her last, on the previous day" (1105). The rapid multiplication of this amorous count (an echo, perhaps, of Catullus 5, in which the Latin poet overwhelms Lesbia with thousands upon thousands of kisses) serves less to quantify the time that separates the lovers than to demonstrate the power of "immense numbers to astound and teach." For a longer discussion of the relation between hyperbole and enumeration, see Johnson's magisterial and deeply erudite study *Hyperboles: The Rhetoric of Excess in Baroque Literature and Thought*, especially 67 – 91.

22. For Barthes, the *jouissance* of gastronomy is inseparable from the pleasure of the text. Prefacing a new edition of Brillat-Savarin, a writer who "desires the word as he desires truffles, a tuna omelette, a fish stew," Barthes describes the language of gastronomy as "a twofield delight": "greedy [*gourmand*] for the words it wields and for the dishes to which it refers" (261). No less greedy, Perec's inventory enjoys a palate that is as delectably polyglot as any modernist poem: besides French, there are words from English (*apple pie*, *haddock*, *Jack Daniel*), Italian (*figatelli*, *mozarella*), Spanish (*chivas*,

porto), Russisan (*vatrouchka*, *slivowitz*, and of course *vodka*), Turkish (*tarama*, *yaourt*), and Arabic (*moulakhia*: curiously enough, the only italicized foreign word in the whole text). Not to mention his inclusion – on the cheese platter, wedged between *boursin* and *bree* – of "two Brillat-Savarins."

23. Glossing Sturrock's description of Perec's use of constraints as a form of "willed objectivity," David Levin Becker characterizes such a practice as "a way of foregrounding the technical in order to take enough pressure off the personal that it can express itself more or less organically" (182). In a similar vein, David Bellos associates Perecquian enumeration with "the basic human impulse to hold on to things, to fend off loss by compulsive acts of recording."

Not everyone would agree. The uptake of the Oulipo among conceptual writers, for example, has consistently downplayed the reparative and expressive potential of constraint-based writing. In their preface to "Attempt at an Inventory" in *Against Expression: An Anthology of Conceptual Writing*, Craig Dworkin and Kenneth Goldsmith argue that Perec's errors and omissions undermine the ostensibly confessional nature of the list: "Slippages of accounting and excursions into the realm of fantasy move Perec's quest more into a realm of Wittgensteinian language games that of accountability or self-definition" (477). But this reading misses the point: if Perec sees list-making as a way to know and remember the self, it is because the descriptive process itself (and not the facts it records) registers the whims and idiosyncrasies of the one who describes. Slippages are where the list is most personal.

- 24. The tentative differs from the logic of exhaustion, which seeks to turn description into a scripted procedure that always produces the same irrefragable sum. Perec's oeuvre is full of characters who undertake exhaustive projects that never amount to more than provisional attempts. Perhaps the most famous is Bartlebooth, aptly named after Melville's scrivener, who spends decades of his life painting watercolors of fifty seaside ports and making them into jigsaw puzzles only, in the end, to have them chemically erased. (*Life A User's Manual* famously ends with Bartlebooth's corpse slumped over a nearly finished puzzle, complete but for a single x-shaped hole, and clutches in his dead fingers the final piece which the spiteful puzzle-maker Winckler has carved into the shape of a w.) Like puzzle-making, the art of enumeration tarries with the tentative and the incomplete. It is a self-defeating attempt at systematic description, a form that cannot abide tentativeness and yet cannot function without it.
- 25. McCarty coins this phrase to describe the "complete explicitness and absolute consistency" required by digital models.
- 26. Translations from the Norton lectures and, unless otherwise noted, from Calvino's critical essays are my own. Gregory Brock's 2016 version of *Six Memos*, although an improvement on the anonymous 1988 translation from Harvard University Press, still

takes considerable liberties, and my argument leans heavily on the precise diction of the Italian. For the same reason, all of the block quotations from Calvino in this chapter cite both languages in parallel. In cases where an edition has substantially shaped his reception among anglophone readers, such as William Weaver's translation of *Invisible Cities*, I point out salient differences, which are often illuminating in and of themselves.

- 27. Especially in Agamben's reformulation of the term, sovereignty has become a pivotal concept for media scholars attempting to think through the persistence of executive power after the rise of decentralized networks. In *Programmed Visions*, for example, Wendy Chun (*Programmed Visions: Software and Memory*) draws a compelling analogy between the sovereign prerogative to kill and let live and the way software divides power between compilable source and executable code, a division that encodes the historical (and typically gendered) division of labor between computers and operators at a time when both roles were still performed by humans.
- 28. Compare the structure of George Perec's *La vie mode d'emploi*, a novel whose ninetynine chapters correspond (minus one exception) to the grid of a ten-by-ten chessboard. This chessboard, in turn, maps the façade of a Parisian apartment, and the chapters jump from room to room, following the pattern of a knight that touches every square on the board only once. Calvino praises this work in his memo on "Multiplicity," comparing it to Balzac's *Comédie humaine* and calling it "the last real event in the history of the novel" (117). For a comparative reading of *La vie mode d'emploi* and *Le città invisibili* (with a detour through Walter Benjamin's *Passagenwerk*), see Chiesa.
- 29. In "Exactitude," Calvino uses these terms to describe *Invisible Cities*:

Un simbolo più complesso, che mi ha dato le maggiori possibilità di esprimere la tensione tra razionalità geometrica e groviglio delle esistenze umane e quello della città. (70)

A more complex symbol, which gave me the greatest opportunity to express the tension between geometric rationality and the tangle of human existences, is that of the city.

The passage echoes his earlier comparison between "the bustling spectacle of the world [*il morimentato spettacolo del mondo*], by turns dramatic and grotesque, and the picaresque, adventurous inner rhythm that spurred me to write" (5-6).

30. In a 1971 letter to Paolo Valesia, Calvino makes a similarly modest proposal for "a hypothetical language, an attempt at linguistic construction outside the rules of rhetoric and logic, a language without a speaking subject, language of things, Gurdulùlanguage" – or, put another way, "this language of the Other/the Devil/the Zanni/the

Fool" (409). A popular figure in the *commedia del arte*, the Zanni plays a dispossessed worker from the Lombard countryside who serves the wealthy nobles and merchants of Venice, contorting his body into acrobatic movements that substitute for his absent speech. Sianne Ngai traces the modern legacy of this figure by arguing that the zany constitutes an aesthetic category in its own right, encompassing "the intensely embodied affects and desires of an agent compelled to move, hustle, and perform in the presence of others" ("Categories" 950).

31. In a letter dated 2 September 1960, concerning a theatrical production with Mario Monicelli and Suso Cecchi D'Amico, Calvino describes his attempt "to follow Coleridge's method: by smoking opium and reading Marco Polo he managed to compose in a dream-like trance 'In Xanadu did Kublai Khan'' (202). This project eventually became *Invisible Cities*: a decade later, in a letter to Gianni Celati dated 12 December 1970, Calvino notes that he is at work on "a remake of Marco Polo's *Il Milione* full of brief descriptions of imaginary cities" (ctd. in Modena 191). He recalls this connection in a 1983 lecture at Columbia University, comparing *Invisible Cities* to the work of other writers inspired by Polo's travelogue: "Coleridge in his famous poem, Kafka in *The Emperor's Message*, Dino Buzzati in his novel *The Desert of Tartars*." What brings these influences together is not just their use of *Il Milione* as a source text but their desire to discover there an imaginary "elsewhere," a romantic horizon that fades as the world becomes, in Calvino's words, "more and more uniform (and for the worse)" (179).

For a fine-grained (and mostly sympathetic) critique of Weaver's translation, see McLaughlin 211–17.

- 32. In *The Rhetoric of Romanticism*, de Man describes prosopopoeia as a form of "disfiguration" or "defacement" (114), where addressing an inanimate object as if it were alive simultaneously deprives the speaker of voice. At the same time that prosopopoeia makes the dead speak, "the living are struck dumb, frozen in their own death" (78).
- 33. In "Ekphrasis and the Other," Mitchell defines three ekphrastic dispositions (hope, fear, and indifference) that all seek to contain the profound sense of alterity to which ekphrasis gives voice. Many of his examples, drawn from romantic and modernist poetry, oppose the voyeuristic gaze of the male poet (conveyed to an audience also presumed to be male) to a female body that at once yields to his desire and threatens, like Medusa, to return his gaze and freeze the voyeur into an image of the static artwork he describes.
- 34. Denise Fujiwara and her ensemble premiered their dance adaptation of *Eunoia* at the Harbourfront Centre in Toronto on March 2014. Among other constraints, the dancers were required to "initiate movement from body parts that contain only the appropriate

vowel: for example in Chapter E, from the neck, knee, temple, and spleen" (Fujiwara). The hiphop group Eek the Alien remixed sentences from Chapter I for the track "Nihil Dicit" on their album *The Paranoia Within*. Leslie Ahenda tweeted an emoji translation of the first page of *Eunoia* on 18 Feb. 2016.

35. For a recent example, see Calvin Bedient's aptly-named polemic in the *Boston Review*: "Against Conceptualism: Defending the Poetry of Affect." Bedient targets *Eunoia* as an especially disaffected example of conceptualism's rejection of the lyric:

What is the politics implicit in Oulipian writing, if any? I ask it, first, of Christian Bök's popular *Eunoia* (2001), narrative poetry in the improbable form of a lipogrammic fantasia on the vowels, each one marched in order in its five chapters, each word conscripted for its contribution to the vowel of the moment. Fans of the poem like to discover profundities in it, but I find it cliched and shallow. It replaces Andre Breton's directive, revolt so as to be adequate to oneself, with the message: be as ingenious as you can. Delight in the auto-affection of your faculties.

- 36. Queneau's *Poèmes*, often cited as the inaugural text of the Oulipo, consists of ten fourteen-line sonnets whose lines are interchangeable: any line can replace the corresponding line of another sonnet while preserving the rhyme scheme and the laws of syntax. The text is a machine for generating sonnets: 100 000 000 000 000 (or 10¹⁴) sonnets, to be exact. Queneau calculates that it would take 190 258 751 years to read the work in its entirety, reading one sonnet a minute, all day long, every day of the year ("Poems" 14).
- 37. Bök also happens to be a fan of *War Music*, Christopher Logue's modernized retelling of the *Iliad*, which was shortlisted for the Griffin Poetry Prize the same year *Eunoia* won.
- 38. Chapter E is also a nod to the classical origins of the lipogram: in late antiquity, the Greek poet Nestor of Laranda composed an *Iliad* in twenty-four books, each of which omitted a subsequent letter of the Greek alphabet. Tryphiodorus of Sicily did the same for the *Odyssey*. See Perec, "History of the Lipogram."
- 39. Bök, Christian. Poetry reading. Pages Bookstore, Calgary, AB. 22 Aug. 2014. The published version of the translation appears in *The Xenotext: Book 1*.
- 40. Bök anticipates these scruples within the text itself, which uncannily rebukes its future critics: "I fit childish insights within rigid limits, writing shtick which might instill priggish misgivings in critics blind with hindsight. I dismiss nitpicking criticism which flirts with philistinism" (50).

41. See, for example, Goldsmith's introduction to a special issue of *Poetry* magazine on Flarf and conceptual writing:

Start making sense. Disjunction is dead. The fragment, which ruled poetry for the past one hundred years, has left the building. Subjectivity, emotion, the body, and desire, as expressed in whole units of plain English with normative syntax, has returned. [...] Why atomize, shatter, and splay language into nonsensical shards when you can hoard, store, mold, squeeze, shovel, soil, scrub, package, and cram the stuff into towers of words and castles of language with a stroke of the keyboard? ("Flarf")

The idea that contemporary avant-garde poetry is turning away from modernist disjunction is widespread, and not only among conceptual poets. Compare Tan Lin's call for "a softer, ambient avant-garde that works against radical disjuncture" and instead explores work that is "relaxing, boring, absorptive, sampled freely and without effort" ("Interview").

Bök, for his part, sees this shift away from disjunction as one of scale – from relatively visible linguistic units (letters, words, syllables) – to the inhuman abstraction of the Word .doc or the BitTorrent file. Unlike Goldsmith, however, he remains skeptical of efforts to break with the historic avant-gardes: see, for example, his critique of Reginald Shepherd's concept of "post-avant poetry" in a blogpost for *Harriet* ("Late Past the Post").

- 42. Bök is hardly alone in casting his avant-garde poetics in Kantian language. As Robert Kaufman persuasively argues, the Third *Critique* (partly by way of Adorno's unorthodox reading of Kant in *Aesthetic Theory*) underwrites a wide swath of modern poetry and poetics from Baudelaire's *Les fleurs du mal* to the work of the Language poets. Poetry is aesthetic, for Kaufman, in its desire to stretch language towards "affect and song," making available a kind of "quasi-conceptuality" and yielding an experience of concepts that have yet to be determined or realized. If, as Adorno writes in "Lyric and Society," the lyric is a form in which "language acquires a voice [die Sprache selber laut wird]" (56), this is not because language usurps the subject by revealing its artifice, but because the lyric, by making language musical, restores its lost suppleness as a medium for thought. For a fuller account of the connection between avant-garde poetry and the Third *Critique*, see Kaufman's essays "Negatively Capable Dialectics: Keats, Vendler, Adorno, and the Theory of the Avant-Garde," "Everybody Hates Kant: Blakean Formalism and the Symmetries of Laura Moriarty," and "Lyric's Expression: Musicality, Conceptuality, Critical Agency."
- 43. Marjorie Perloff briefly makes this connection in "The Oulipo Factor," describing "The Eve of St. Agnes" as "a poem that, like *Eunoia*, dramatizes the inextricability of pain and pleasure" (38). For a reading of the specifically gastronomic pleasure of that poem (or what Timothy Morton calls "the blancmange effect" of Stanza 30) see Morton, *The*

Poetics of Spice, 148 – 170.

- 44. One oft-cited example (exemplary, no doubt, because it can also be read as parodic) is Frank O'Hara's "The Day Lady Died," which ends just as Billy Holiday "whispered a song along the keyboard / to Mal Waldron and everyone and I stopped breathing" (28 9).
- 45. For a more sustained comparison between Bök and Bergvall, see Marjorie Perloff, "The Oulipo Factor." Perloff reads these two poets not just as neo-Oulipians but as heirs to a more capacious poetic formalism with roots in the historic avant-gardes. Departing from the rhetoric of conceptualism (which holds that a poem is reducible to the articulation of its generative constraint), Perloff aligns the Oulipo and its successors with the modernist (and Russian formalist) argument that moments of heightened artifice serve to estrange and thereby renew our atrophied attentiveness to form. Bök and Bergvall, in this reading, serve as antidotes to a contemporary scene awash with naïvely confessional lyrics that Perloff disparages (with a nod to Ezra Pound's *A Few Don'ts by an Imagiste*) as little more than lineated prose.

Although Perloff has been instrumental in forging transatlantic and transhistorical connections between modernism, the Oulipo, and contemporary anglophone poetry, the division she makes here between lyric expression and avant-garde formalism has come under attack in recent years, especially by critics associated with the new lyric studies. For a judicious account of the lyric/avant-garde divide (and a careful reading of Perloff's formative dissertation on Yeats), see Izenberg, *Being Numerous*.

46. The phrase is from an unpublished draft of the poem (ctd. in Perloff 38). In *Fig*, Bergvall describes the original Italian in similar terms:

I had started this piece by accident. Stumbling upon Dante's shadeless souls on my way to other books. Perhaps following a lead, in the dark of dark, in the woods of woods, in the sense of panic of the opening canto: 1-2-3 1-2-3 1-2-3 1-2-3 lines, and the three menace him. (64)

- 47. Spitzer critiques biographical interpretations of the *Commedia* for "their confusion of the 'poetic I' with the empirical or pragmatic 'I' of the poet who, in the very first lines of his poem, has taken care to present his 'poetic I' as representative of humanity." Rather, the opening tercet figures Dante as a "composite 'I" that sublates the individual into the universal even as it requires "an individual eye … to perceive and to fix the matter of experience" (416).
- 48. For a felicitous example of such scholarship, see Dinshaw, *How Soon Is Now*, which traces the afterlives of medieval literature and philosophy (especially in the work of amateur philologists) in order to uncover "forms of desirous, embodied being that are out of sync with the ordinary linear measurements of everyday life" (5). Also see Cole

- and Smith, *The Legitimacy of the Middle Ages*, a sustained critique of Reinhart Koselleck's theory of modernity as a self-legitimating break with the premodern.
- 49. My discussion of the unheroic here owes much to Anne-Lise François. In *Open Secrets*, François coins the term "lyric inconsequence" to describe romantic and post-romantic poems that do not so much valorize inaction as subtract it from any system of "demonstratable yields" where failure might secretly count as success (xvii).
- 50. In his preface to an excerpt from *Nets* in *Against Expression*, Dworkin observes the many facets of this polysemic title:

Each page of *Nets* (Brooklyn, N.Y.: Ugly Duckling Presse, 2004) manifests its procedure: a freely lyrical writing-through of one of Shakespeare's sonnets, boldly liberating certain words from the grid of the Elizabethan sonnet and foregrounding them to establish new grammatical connections. As an example of what Leon Roudiez would call the paragrammatic – discovering "networks not accessible through conventional reading habits" – Jen Bervin nets ("to make a network") the words she captures from her source. The trim, smart, elegant (i.e., "net") poems that result are themselves net (what "remains after all necessary deductions have been made"): net linguistics in the same sense as net profits. Moreover, the washing clean ("to net") of the original text replicates the washing rub of the ancient palimpsest. (110)

51. In *Notes on Conceptualisms*, Vanessa Place and Robert Fitterman compare *Nets* to Rauschenberg's 1953 *Erased de Kooning Drawing*, in which the artist meticulously erases (and thereby renders all but totally invisible) a sketch by Willem de Kooning:

Note: Bervin's gesture is more like Rauschenberg's erasure of de Kooning's painting in leaving the presence of the absence, than it is like Duchamp's proposed Rembrandt-as-ironing board. (31)

In an essay that reads Kenneth Goldsmith's *Sports* as a radical example of erasure poetry (since, by transcribing a broadcast of a baseball game, Goldsmith elides the slippages and disfluencies that punctuate rapid speech), Brian Cooney also cites Rauschenberg's artwork as an important precursor to literary forms of erasure:

We need only look back at Robert Rauschenberg's *Erased de Kooning Drawing* (1951) ... to see how an artist can potentially foreground the erased text while writing out his own presence. (22)

52. In his afterword to *Radi os*, Guy Davenport mentions Gertrude Stein's famous quip ("A rose is a rose is a rose") in a parenthetical remark, although he does not explicitly relate this intertext, which also lies behind Bervin's version of Sonnet 130, to Johnson's repeated use of the word (or rather his retention of Milton's repeated use of the word)

and its many homophones. Davenport writes:

The most original writer of our time, Gertrude Stein, still begins *The Making of Americans* with a passage from the Nichomachaean Ethics, and conceals the word *eros* in "A rose is a rose is a rose." (93)

- 53. Although Blake gives no explicit descriptions of his method, the engraver John Thomas Smith, in an 1828 account, describes the former's technique of "writing his poetry and drawing his marginal subjects of embellishments in outline upon the copper-plate with an impervious liquid, and then eating the plain parts or lights away with aquafortis considerably below them, so that the outlines were left in stereotype." (ctd. in Essick 85)
- 54. Blake also produced water-colors and drawings for *Paradise Lost*, *Paradise Regained*, *Comus*, "L'Allegro," and "Il Penseroso" (McCaffery 125).
- 55. Broqua makes a similar point in his brief reading of Sonnet 130, arguing that the oscillation between halftone and bolded print injects an element of alterity into the poem, calling its self-identity and originality into question:

Whereas in a quotation, one borrows from a prior text, one cuts one's material from an older text and leaves the rest of the old text behind, here the new text seems to appear as a quotation within the older material, which the reader can apprehend fully. The layout of the old and the new texts seems to suggest that the new highlighted text in bold type is a foreign body in the density of the older text. While the new text is being traced over the surface of the older text, it doesn't rub it out. The new text becomes a synecdoche of the old one as well as its tangible ghost. This is once again a new literalisation of intertextuality: the eerie phenomenon of a to-and-fro movement between Shakespeare's and the new text experienced with the two other poems commented on above is made apparent on the page itself of Bervin's minimal production. So much so that it is almost impossible for the eyes to focus and adjust between grey and bold, thus creating a perpetual ongoing reading whose echoes are almost already traced. A spectral phenomenon ensues: it is hard to know which text comes first and one wonders if there is one text at all. (37-8)

56. For a critique of Pound's poetics of renewal as a form of reproductive futurity, see Colebrook, "Queer Aesthetics." Colebrook argues that these poetics are "[s]exually normative" to the degree that Pound "aligned artistic experimentation with a fertile, productive, and living expenditure that would produce ends that were not already determined" (35). The notion of poetic homage as an act of living creation, she goes on to suggest, acquires a sovereign logic in *The Cantos*, resonating with Pound's allegiance

- to Italian fascism: "[B]y emphasizing art as a decisive break with the circulation and system of production for the sake of a higher, productive, and creative end beyond already justified life, Pound justified a violence of the present for the sake of a future that would return life to its proper, active, and expansive creative potential" (36).
- 57. In "More Life: Shakespeare's Sonnet Machines," Julian Yates argues that the analogy between life and inscription in the Sonnets, which seems calculated to vivify poetry and to champion the sonnet as a form capable of sustaining life, a form in which life might survive itself, ends up backfiring: it is life that comes to resemble a mode of inscription, rather than inscription a form of life. In the end, he writes, "the sonnets assume the status of a machine, a calculable program of routines" a machine in which "you, the reader, are the bios being written, the life being produced" (339).
- 58. Comparing three contemporary rewritings of Sonnet 130, including the one in *Nets*, Vincent Broqua invokes Harold Bloom's reading of Shakespeare in the preface to the second edition of *The Anxiety of Influence*, arguing that these texts use formal procedures in order "to diverge from a theory which posits like Bloom's and its avatars that literature is a tragedy originating in Shakespeare's *essential* and *universal* grandeur" (7). Bervin's poem in particular suggests that "the texts of the past are no longer valuable because they stand in and for the past, but they happen and coexist simultaneously in and with our reading" (40). I would add, more modestly, that if *Nets* subverts the notion of the canonical text as a tragic origin, that is partly because it calls attention to the way in which the Sonnets already put pressure on the metaphor of writing as a form of inheritance or succession.
- 59. As Colin Burrow notes in his edition of *The Complete Sonnets and Poems*, the final line paraphrases a proverb derived from Aristotle's *Metaphysics*, giving the musical conceit a mathematical resonance (music being one the four arts of the scholastic *quadrivium*: the study of number and time). One is not a number, according to Aristotle, because one is a unit and a number is a multitude of units: the two are distinct substances (396).
- 60. Bervin is not alone in forging an analogy between erasure and music. Johnson compares *Radi os* to the Baroque Variations of Lucas Foss, who creates new compositions from old classics by selectively muting notes. In words that could also describe *Nets*, Johnson cites Foss on his rendition of Handel's Concerto Grosso, Op. 6, No. 12.:

Groups of instruments play the Larghetto but keep submerging into inaudibility (rather than pausing). Handel's notes are always present but often inaudible. The inaudible moments leave holes in Handel's music (I composed the holes). (ix)

61. Compare Wendy Chun's distinction between *memory* and *store* in her incisive analysis of digital memory as a form of "enduring ephemeral":

Crucially, memory is an active process, not static. A memory must be held in order to keep it from moving or fading. Memory does not equal storage. While memory looks backward, according to the OED, to store is to furnish, to build stock. In computerspeak, one reverses common language because one stores something in memory. This odd reversal and the conflation of memory and storage glosses over the impermanence and volatility of computer memory. Without this volatility, however, there would be no memory. Memory stems from the same Sanskrit root for martyr, perhaps comparable to the ancient Greek term for "baneful," "fastidious." Memory is an act of commemoration – a process of recollecting or remembering. (164)

What makes new media *new*, Chun goes on to argue, is less their superhuman speed or power than their reliance upon physical media – cathode tubes, mercury lines, and even flash storage – that constantly erase and rewrite the information they promise to retain. If digital media seem both less solid and more durable than analog media (a paradox embodied by the figure of the cloud – at once ephemeral and transcendent), that is because they elide the cycles of decay and renewal, the constant flicker of electrical charges, that make digital information both highly volatile and seemingly inert. The fantasy of digital memory as an impregnable archive follows from a conflation of regenerative memory with static memory, or, more simply, of memory with storage. By arguing that artificial memory depends upon a process of constant erasure and re-inscription (and describing this process as an act of remembrance), Chun builds upon theories of the palimpsest in which all inscriptive media, not only digital memory but also the erasable tablets of Shakespeare's era, exhibit a melancholic compulsion to commemorate a lost text by repeatedly overwriting it. She writes:

If computer memory is like anything, it is like erasable writing; but, if a penciled word can be erased because graphite is soft, a computer's memory can be rewritten because its surface constantly fades. (160-1)

62. Two poems from *The Day* appear in a 2009 issue of *Poetry* magazine, together with a note describing the still unpublished project:

Kenneth Goldsmith is perhaps best known for his work *Day*, in which he transcribed every word of a mundane day's issue of the *New York Times* into a nine-hundred-page book. For his work "The Day," he did the same exact task to the *New York Times* of September 11, 2001. Hence, even the innocuous news reports and weather are loaded with fact, fear, and emotion, making us aware that language is never simply an innocent carrier of meaning but is wildly variable depending upon context and framing.

63. In a footnote to Sonnet 64, Colin Burrow observes the imbalance of this zero-sum game:

As one side loses so the other gains, and as the one gains so the other loses. The dark vision of the poem's end is foreshadowed in the asymmetry which hides under the apparent balance of this line: *loss* is *increased* rather than diminished by *store*. (508)

- 64. The Shakespearean sonnet inscribes this paradox in its very form: the sestet resolves the crux posed by the octet that death is inevitable by presenting poetry as the medium that will let the beloved live forever: the poem promises continuity at precisely the moment that it ends.
- 65. For a reading of this paradox in the context of romantic and post-romantic elegies, see Shaw 5–6.

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