



“SEEING WORDS MACHINEWISE”:  
TECHNOLOGY AND VISUAL PROSODY

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*“Writing has been bottled up in books since the start. It is time to pull out the stopper.”<sup>1</sup>*

In the late 1920s, Bob (“Carleton”) Brown, author of that assertion, tried to pull out the stopper with a most unusual corkscrew. Using a combination of electric motors, magnifying lenses, microscopic type and rolls of paper tape, “Bob Brown’s reading machine” mechanically scrolled text before a reader who adjusted the font, speed, and direction “at the press of a button” (Brown, “Appendix” 206). In short, the contraption was something like a cross between the recently invented microfilm reader and Microsoft Word fifty years *avant la lettre*. The machine, of course, did not catch on, but a prototype was constructed and about forty writers responded to Brown’s solicitations and contributed short pieces for his new device. Since Brown’s machine would have been to the codex book what the “talkies” were to the stage, the solicited pieces were known as “readies,” and an anthology of these contributions, *Readies for Bob Brown’s Machine*, appeared in 1931. Brown’s Roving-Eye Press was then located in the artists’ colony at Cagnes-sur-Mer, and the anthology, accordingly, centers about writers who were either expatriates or tourists in France during the ’20s. The table of contents reads, with very few exceptions, like a roster of those on the front lines in the “revolution of the word”: Ezra Pound, Gertrude Stein, William Carlos Williams, Robert McAlmon, Charles Henri Ford, Alfred Kreymborg, A. Lincoln Gillespie, and Nancy Cunard, to name only a handful.<sup>2</sup>

Thematically, these contributions are very much of their time. In addition to the racism, anti-Semitism, misogyny and homophobia

which are all too familiar to readers of early twentieth-century literature, the readies also reflect the male modernists' often literal phallogocentrism and its exceedingly bizarre physiological equation of sperm and spinal fluid. This essay does not propose to take up the anthology's social politics in detail, but given the critical silence on this point, perhaps a reminder is in order.<sup>3</sup> Even a glance at a small sampling of titles and quotes should suffice to give the flavor of the selections: "Dirty Nigger: A Native Melodrama" (Samuel Putnam's contribution), "Jeff the fat jewboy" (the character sadistically portrayed in an adaptation from James Farrell's *Young Lonigan*), "The Persian bug-gahs, Joe/ Strike me as=a=rotten show" (Pound's couplet refrain to a piece subtitled "*Persicos odi*"), and "No ticky no lan'dy" (the punchline to Nancy Cunard's poem-length racial slur "Dlink"). Then there's Laurence Vail's chilling "Pogrom," which ushered in the 1930s with an alliterative catalogue connecting verbs of violence to Semitic surnames. Vail's eerie knack for anticipating the new scale of twentieth-century horrors is equally evident in the piece which precedes "Pogrom." With its uncritical, futurist inspired description of a deadly ground "ZERO" vacuum of "ASH-VAPOUR," Vail's "Boom the Doom (invitation to world end)"—like Mina Loy's enthusiasm for nuclear energy—seems barely comprehensible in its pre-Hiroshima naïveté.<sup>4</sup> Appropriate to this poem, one version of the readies was to be printed "in radium ink for night reading" (Brown, "Appendix" 206).<sup>5</sup>

If the readies are disappointingly common in their virulent rhetoric, their formally progressive presentation is part of an experimental tradition which still seems remarkable today, in part because it has been largely ignored by the academy. As I hope this essay will show, a more adequate institutional recollection of writers like Brown contextualizes the "exceptional" appearance of those ostensibly radical works which, if they appear at all, erupt and vanish in most canons without apparent precedence or lineage. Moreover, the recovery of such traditions also serves as a corrective, and spur, to recent interventions in the discourse which seeks to define categories like "modernism" and "postmodernism." All of the selections in Brown's anthology, which range in length from an epigrammatic couplet by Kreymborg to six-page prose pieces, situate themselves in the uncomfortable position of a belated prolepsis: a presentation in

book-form of the imagined literary effect of a technology that had yet to be produced and which would ultimately make the book obsolete.<sup>6</sup> Intended to be read one day on Brown's machine, the readies attempt to indicate his mechanical and "inklessly achieved" revolution of the word through various strategies (Brown, "Appendix" 182). At the most basic level, these strategies include the typically modernist conflation of two words, either typographically or into a portmanteau (a technique familiar to readers of Williams, Faulkner, and Joyce), a frequently insistent use of present and progressive tenses (one of George Kent's entries records pure "progressiveness" by replacing some verbs with a synecdochal "ng"), and the Futurist inspired elision of syncategorematics (what J. Jones termed "thes, ofs, and fromits").<sup>7</sup>

Accordingly, Brown predicted that with the success of his reading machine the "useless words like 'the', 'of', 'and', 'to', 'a', 'in', 'that', and 'as' would be slowly but surely dropped" ("Appendix" 170). Paradoxically, in contrast to Brown's reasonable prediction, the experimental poetic tradition of which the readies is a part has specifically foregrounded such words. Stein's *Tender Buttons*, with lines like "Roast potatoes for," was already more than fifteen years old, and the work of Zukofsky and Oppen, similarly attentive to the "little words," was imminent. Brown's prediction need only be adapted slightly to argue that the same technology which threatened such words drew attention to their precarious status in the presumably "transparent" languages of modernity and made some writers aware of them even as they disappeared from advertising copy and continued to remain largely invisible in the texts of conventional writers. Predictions like Brown's, which are as ubiquitous today as they were in the 1930s, lead one to an overwhelming question: what is the effect of technology on literature? Because the relationship of Brown's anthology to his proposed mechanical innovation forces the question, the readies should prove an effective tool with which to examine current accounts of modernist literature and the questions those accounts implicitly raise about the impact of digital media on our own contemporary literature. After looking closely at the readies themselves, this essay will turn the tables and read those accounts through the "eight inch double adjustable lens" of Bob Brown's machine (Hiler 5).

To begin to answer such questions, I want to pay particular attention to what may be the most striking aspect of the readies: their visual prosody. The readies are overrun with a profusion of typographic symbols meant, according to Hilaire Hiler's preface, "solely to suggest that the reading matter is to pass in a pleasant reading size at a pleasing speed before the reader's eye" (7). The texts are both broken up and bound together by virgules, indices, arrows, diamonds, dashes of varying lengths, ellipses, lines, manipulated spacing, repeated parentheses and marks of punctuation—as well as by a range of mathematical symbols (equals, plus, greater and less than).<sup>8</sup> Whatever Hiler's claims to the contrary, these articulating typographic characters must also have evoked the *parole in libertà* of the Italian Futurists. As early as 1912, F. T. Marinetti had predicted for the new literature, "To accentuate certain movements and indicate their directions, mathematical symbols will be used: + - x : =" (93). Tellingly, three of Marinetti's short "words in freedom" pieces, notable for the absence of such arabesques, are translated and reprinted in Brown's anthology.

Beyond any inflection of futurism, all of those symbols which were intended to give the illusion of mechanical "flow of type" are also evidence of the most radical element of Brown's writing and his anthology selections (Brown, "Appendix" 207). Like the other non-lexical characters which populate the readies, such symbols must be *viewed*; they cannot be spoken without some contrived act of translation. In the long and continuing history of poetry which takes speech as its focus, the readies are a relatively rare moment of visually based writing aimed at "carrying the word to the eye" (Brown, "Appendix" 177 [emphasis supplied]). Brown, who emphatically asserted that "reading is for the eye and the INNER ear," repeatedly claimed that "Literature is essentially Optical — — — not Vocal" ("Appendix" 181). In explicit contrast with a hypothetical "talking book," an invention which would have "missed the point" ("Appendix" 181), Brown hoped to develop "a reading machine which will revitalize . . . interest in the Optical Art of Writing" ("Appendix" 177).<sup>9</sup> Appropriate to "a visual Literary Language sharply separated from the Speaking Tongue," the readies contain a self-conscious array of purely visual tools, from manipulations of typeface, fonts, capitals, numerals and

spacings to significant and unconventional uses of page layout: gutters, justification, headers, footers, orientation, and columns ("Appendix" 185).<sup>10</sup>

Perhaps the most easily recognizable element of the readies' optically oriented texts is their use of an iconographic visual prosody—what Brown would call "Optical rhymes" ("Appendix" 164). Sidney Hunt's contribution to the anthology, for instance, frequently manipulates typography, letter forms and page space to achieve a variety of mimetic effects: "railSTEPlatform," "humid windowrain // / slantslope," "E C H O . O . O . ." and "TtRrEeMmBbLIEeSs . . . shimmy runbum-po-verbroak-en road a," for examples. Words in the text literally "c - o - a - l esce" or "dis s o l v" and "van . . ." into the "infinothing" of the white space of the page, and Hunt even sculpts that page into pictorial forms, like the "big . . . stare" or "STARE" of an

E  
E Y E  
E

which can "sea." Perhaps prompting Brown's query "What's Eyes got to do with the Reading Machine?", Hunt's ready also suggests the answer: "Everything" ("Appendix" 164). An equally pictographic section of the text forms what John Ashbery has called an "open field of narrative possibilities" (251), which combines possible references to a railroad, crashing airplane, smudged window pane, and the very space of the page itself:

clear edges -----  
(rubbd) ----- C l e a n s p a c e - - -  
- - - f a i n t pane trace - -  
l i p s c u r v e c l e a r (vast plain)  
steeltrack----- horizontal

In the context of the dense print which surrounds this section, the page is presented as a "cleanspace" with "clear edges" as though it were "rub[b]c[d] . . . clear" to reveal a "pane" of glass (a "faint . . . trace" of the smudged "curve" of "lips" remaining) or the "p[l]ane of a "vast plain" which stretches across the page like a "steel track"—

both possibilities represented iconically by the “horizontal” line.<sup>11</sup> Similarly, Walter Lowenfels’s “Passage From Book II,” a sort of *tombeau de Apollinaire* (in every sense of the word), breaks out of prose into a descending page layout reminiscent of sections from Guillaume Apollinaire’s *Calligrammes*, Vicente Huidobro’s *Tour Eiffel* and Stéphane Mallarmé’s *Un Coup de Dés*:

the kingdom within burning its own ashes by its own  
flame.  
Phoenix  
    alive  
        dead  
            dead.  
                O Few  
                    O  
Poets  
    mourn for Apollinaire. He has sunk and will not  
rise

Brown’s own essay also deviates from its conventional prose format to provide a concrete example of what the readies might achieve with a poem that “rhymes in the eyes” (“Appendix” 164); he illustrates the “Pagliacci effect” in a text that hides the tragic clown’s confession of sadness — quite literally — within his laughter:

HAHAHAHAHAHAHAHA  
    i feel very blue  
HAHAHAHAHAHAHAHA  
                    (“Appendix” 207)

The reader must “see through” Canio’s loud laughter and “read between the lines” in a poem which anticipates the similarly iconic experiments of concrete poetry some twenty-five years later in the century.

Even Brown’s more conventional prose is filled with a witty attention to the visual dimension of language. Consider, for example, a sentence from the “Appendix” to the readies anthology: “Well, what guy cant write a canto, Ez? say I” (162).<sup>12</sup> Brown plays with the abbreviation for the name “Ezra” and the names for the graphemes “e” and

“z” to equate Pound’s poetry with what is “easy.” Mimicking a colloquial adverbial form of “easily” appropriate to the informally abbreviated “Ez,” Brown’s sentence translates to “what guy can’t easily write a canto?” Similarly, playing off the rhyme (in the eye as well as the ear) of “cant” and “canto,” Brown exploits the apostrophe’s purely graphic differentiation between “can’t” and “cant” to productively confuse the difference between “can not” and “the conventional, trite, or insincere use of language” which he jocularly implies Ezra’s universally producible poems might be. In both cases, Brown recognizes the visual text’s ability to contain two readings which a vocal performance would either erase or force the reader to choose between. “Real readers,” Brown taunts, “enjoy the inherent qualities of type itself” (“Appendix” 205). As in the sentence from Brown, the texts of many of the readies are generated and motivated as much by their own materiality, or those “inherent qualities of type itself,” as by some logic of their signifieds.

“Morninight Car ((nocturnal day realm),” the title of Hunt’s piece, corresponds not only with Eugène Jolas’s editorial interest in “nocturnal realities” and “the language of night,” but also with the waking dream of James Joyce’s “Work in Progress” (later to constitute parts of *Finnegans Wake*), which began appearing in the late 1920s. Many of the readies seem to take their cue from Joyce’s experiments, and like his later work, these readies explore a variety of graphemically focused compositions intersecting with complex phonemic resonances in “the INNER ear” of the reader. Joyce himself is conspicuously absent from the readies anthology, although he is mentioned *en passant* by Brown (177) and with a brief and dismissive witticism by Manuel Komroff: “Joyce has done an Irish week-end that has no end and to me is very weak” (110). The notorious rivalries which ran through the artistic community in France and elsewhere in the first quarter of the century were as petty as those in any academic department today, and may in themselves be sufficient to explain the absence. Whatever the reasons, a greater familiarity with the small-press publications and literary journals of the ’20s and ’30s puts the better known works of writers like Joyce into perspective and situates them in a milieu in which their techniques make more sense — both logically and hermeneutically.

A feeling for the particular style I have in mind should be made clear by paraphrasing and picking out just a few of the highly economic visual and aural plays in Laurence Vail's "Always Gentleman," the first selection in Brown's anthology. After introducing its macho hero, the text's description of the woman whom he sexually desires (to "get") reads, in part: "got pelvenus }}—> got vaginass }}—> got moodesty." Before the "ROARGASM" in which "Harms and l'egg's cuntstrict," the woman "swoons" as she is "swounded" in the man's misogynistic conflation of violence and intercourse: "wench wrenched mankled." On second reading, however, "swounded" might well seem to refer to the man, who finds himself infected with a venereal disease that leaves both his and his partner's "pelvises" as "pelvitches." Despite this "HIM-teresting cuntition," the man marries another woman in a ceremony where the celebratory "cheers" contain a dark foreshadowing of death: "chearse." As expected, the man's far-from-innocent pastimes in the waves [*ondas*, in Spanish] on the beaches (his "sinnocent arestimes" "onda bitches") involve an infectious and ultimately lethal sexual activity ("mortgasms") which leads to the couple's disease-ridden death; the "two" of them in "bed" collapses into their entombment: "twombed."

J. Jones's "Wot on Erth: A Erthworl Stori" provides several examples of the readies' visual prosody and syncopated style taken one step further. Most striking, perhaps, is the text's symbolic orthography, which spells "success" as "\$uk\$e\$\$," and the metaphoric orthography of words like "frxghirtpkkaalooobggin." In the context of a sexually charged tryst, this unpronounceable string of graphemes takes the place of taboo utterance; it is both literally and figuratively "unspeakable." Jones, however, is also more subtle in his utilization of typography. For example, much of the piece—again reminiscent of Joyce at his best and most extreme—combines a record of the written pages of a textbook with snatches of a broadcast and the thoughts (or speech) of a woman doing her homework while thinking of her lover and listening to the radio. Anticipating the most radical techniques of Claude Simon and *les nouveaux romanciers* by thirty years, two of the paragraphs read:

irreducible map must contain either two adjacent pentagons, not intentional an slipt his hands over my breacher er I  
or a pentagon adjacent to a hexagon. (b) Every irreducible almost FaINt it is So Sweet romance! romance! romance! what

By capitalizing certain letters, Jones reveals the purely visual containment of "fin" in "faint." This paragram transforms the memory of the woman's date into her thoughts while reading the tedious textbook. She recalls how she "almost fainted," either from surprise (the stuttered "er er I" in response to his "not intentional" error or "erer") or because "it is So Sweet" (in this indeterminately "irreducible map" of a text her thoughts become indistinguishable from the song on the radio). She also notes that she is, thankfully, "almost F . . . IN" or almost done with the lesson, the abbreviated Latin entirely appropriate to her geometry text. Q.E.D. Or, as Joyce would put it, "We've had our day at triv and quad and writ our bit as intermidgets" (306).<sup>13</sup> Similarly, the capitalized letters in the fragmented and indeterminate lines

now        exac        twenty five    play        of the elite  
orthwhil    be        half min        to six E train S stop    T

not only narrate that the E train has stuttered to a stop (or perhaps that six E trains have stopped!) but also notes the precise time in New York City: "now [it is] exac[tly] twenty[-]five [and one-]half min[utes] to six, E[astern]...S[tandard]...T[ime]."

Sidney Hunt's readie, once again, follows the logic of the signifier to an even greater degree. Like the musical line in a score for a dodecaphonic composition, certain themes and words run through the text in a series of complex physical and spatial manipulations. In the first few lines, for example, the fourth word is presented ("step"), elaborated ("steppe"), permuted through variations which reverse and rotate ascending and descending elements ("deeps . . . stepped"), and finally resolved in a crescendoed return to the original ("STEP"). Hunt's piece also provides an example of Vail's recombinatory techniques taken one step further:

(coldawmorning) - - airy ————— calm unhum  
 a n s a n d r y f l e s h - - - - i v e r —————  
 skysh imm e r - - - - airpurain - - - - banking a.  
 SUDdnd e s c e n t p u f f - - - - - a r c c l e a r e d g e s - - - - -

This section illustrates the ways in which the text not only alters words spatially while leaving their pronunciation essentially unchanged (“airpurain” as “air pure rain”), but also how it mines new words from within others (“dawn” in the cold o’ morning; “sud” or “south” in the sudden puff of desert scent), opening into a polysemic space that allows subtle thematic connections and contradictions to emerge. After an eerie calm (“calm un[-]human”) without any humming noise (“calm unhum”), the sky shimmers with a “banking” “airp[l]urain[e] and its “SUDd[e]n descent.” The southern (SUD) sky, however, also seems to shimmer in the “airid,” “dry” heat of sandy “[r]iver,” or—alternately—the “morning” “cold” of a French *iver*, or winter. Such spatially distributed typographic anomalies were identified with the “new poetry” to such an extent that Edwin E. Williams’ anacreontic parody “On Looking Into Pagany” (a journal which, despite its avant-garde credentials, was decidedly conservative in visual prosody) concludes:

Punctuation is a bore  
 And capitals are declassé  
 I’ll not use them anymore  
 when i write a modern lay  
 o baccus thee i now invoke  
 to get my poem’s printer drunk  
 let no one think it is a joke  
 when he sets up my awful junk

i  
 k t  
 e is l \* \_ )  
 l h \* (

The reconstituted sentence, one might note, ends either “like *this!*” or “like *shit!*”<sup>14</sup>

Beyond these examples, all of the readies’ experiments with visual prosody—including the intrusive devices meant “to suggest move-

ment, continuity of words, [and] word flow”—call attention to these works’ status as written texts, and thus to the material dimension of their language (“Appendix” 195). Brown credits a much earlier example of poems that focus self-reflexively on the materiality of their own language, Stephen Crane’s *Black Riders and Other Lines*, as the origin of his reading machine and one of the important works in the history of “optical” writing. “Struck with the idea that black printed words are romantic knights galloping across white pages, astride inky chargers . . . I conceived of type in motion though Crane’s exciting title” (“Appendix” 153). In his polemical book *Black Riders: The Visible Language of Modernism*, Jerome McGann appropriates Brown’s reading of Crane and argues for a genealogy of Modernism that originates in the arts and crafts movement of the nineteenth century and then develops in relation to changes in book design and production. McGann situates Brown’s “visible language” as a response to the “textual conditions” of fine-book production, exemplified by the work of William Morris (see McGann, especially 84-91). Indeed, Brown—who was the son of a book seller and involved throughout his life in the fine and rare book trade—would have been particularly familiar with the “craft traditions revived by the work of Morris” (McGann 84).

Unlike Yeats and Pound, who also responded to “the bibliographical renaissance that Morris had brought to a flash point,” Brown explicitly rejected the craft tradition in his forward-looking program of developing a writing which would reflect the technological events of modernity (McGann 84). “Reading from books,” Brown declares with a typically manifesto-like apodixis, “is an anachronism in this Airplane Age” (“Appendix” 204). Countering “the existing medievalism of the BOOK [God Bless it, it’s staggering on its last leg and about to fall] as a conveyor of reading matter,” Brown’s futurist imagination dreams of “reading at the speed-rate of the present day with the aid of a machine, a method of enjoying literature in a manner as up to date as the lively talkies” (“Appendix” 177).<sup>15</sup> In fact, Brown situates his reading machine in a series of medial instruments. In addition to the talkies (and the related technologies of flip-books, nickelodeons and movies), Brown compares his reading machine to the cable telegraph, phonograph, typewriter, radio and television; he also cites the new electronic relay technologies for financial and journalistic infor-

mation: electric news and advertising signs on the roofs of buildings (from which companies even projected electric “cloud advertising”).<sup>16</sup> Particularly important for Brown were the news and stock ticker-tapes; not only is the typewriter on which he composes his readie “a private ticker,” but “The Wall Street ticker is a reading machine” (“Appendix” 165, 166). Conceiving of the reading machine as a “modern, moving, word spectacle” that takes its place as a “new word medium” among these other primarily lexical media, Brown casts the readies as a literature in which one can “see words machinewise” (“Appendix” 186, 198, 183).

Since they explicitly connect the “new literature” with these technologies, Brown’s readies serve as a perfect example of the modern “discourse network” that, according to Friedrich Kittler, emerged around 1900. In contrast with the earlier, speech-centered age of the signified (“1800,” in Kittler’s shorthand), the modern epoch was an age of the signifier ushered in by the new medial technologies of the typewriter, gramophone and projected motion picture. This modern paradigm shift occurred when these new technologies reproduced data with such high accuracy and low filtering that they picked up the noise in what they recorded, and thus the materiality of language could no longer be ignored. The written word, in this new dispensation, was shown to be just another medium in a world of rapidly proliferating media rather than a seamless access to some transcendental, natural truth. Kittler, like Brown, asks his readers to “see words machinewise,” and his argument (which actually does take Nietzsche as its starting point), boils down to something like “God is dead, but we still have gramophones.”

Gertrude Stein alludes to precisely this situation of early-twentieth-century medial technologies: “When we were having a book printed in France we complained about the bad alignment. Ah they explained that is because they use machines now, machines are bound to be inaccurate” (8). As Kittler understands, the problem, of course, is that the machines are far *too* accurate and inflexible. Because the indiscriminating turn-of-the-century medial technologies reproduced the noise of the body’s production of language (the waverings of voice captured on recordings, the unintended gesture recorded on film, etc.), Kittler argues that they thus changed how that language developed. He concurs with Nietzsche that “our writ-

ing materials contribute their part to our thinking” (quoted in Kittler 196), but Brown too beats Kittler to the punch (of the typewriter keys) in his recognition of the media’s effect on language. In a striking anticipation of Marshall McLuhan’s claim that the “radio and public address microphones killed off political oratory . . . [because] you can’t orate into a microphone” (72), Brown announces that the readies will not be a talking machine because “the microphone has killed oratory, oratorical flourishes *don’t stand up in the new medium*” (“Appendix” 206). Accordingly, Brown predicts that the new medium of his machine will in turn alter literature. While “written oratory has been our prose for the last hundred years,” he notes, “oratory has gone out with the talkies, [and] written oratory will go out with the readies” (“Appendix” 205-6).

If the execution of written oratory at the hands of the readies was stayed, it did not escape the new technologies unscarred. Kittler’s archaeology of modernist literature takes the typewriter as its shovel, beginning with Nietzsche’s purchase of the newly invented machine and concluding with film scripts and short stories that involve typists taking dictation.<sup>17</sup> Brown, who “punched out . . . ideas on the typewriter all day long” and characterized his authorship as dictation, explicitly connects the typewriter to his reading machine and the literature it produced (“Appendix” 154).<sup>18</sup> With a self-reflexive emphasis on the “readie” text before the reader, he describes himself “sitting over this typewriter now, pounding this out” (“Appendix” 165). A full account of the typewriter’s influence on modern literature is certainly long overdue. Although such an account lies, unfortunately, beyond the scope of this essay, one might recall that, beyond the obvious examples of the “typewriter art” subgenre of concrete poetry or the typographical specificity of books by Robert Duncan and Robert Grenier, the machine was fundamental to Ezra Pound’s prosody. Hugh Kenner attentively notes (90) the significant typography of the space-bar in all of Pound’s texts from 1913 on, and James Laughlin claims that Pound’s quirky lineation reflects the poet’s impatience with the machine, which stood in the way of his compositional fury: “he would slap the carriage and wherever it stopped that determined the indent” (7). Pound himself suggested that Henry James’s notorious late style—“the great domed head/ . . . drinking in the tone of

things/ . . . weaving an endless sentence” (*The Cantos* 24)—might be the result of “the actual mechanism of his scriptorial process” of dictating to a typist (“A Shake Down” n.p.).<sup>19</sup> In the process of having his orally delivered sentences translated into a (type)written document, James came to rely on the audible “click of a Remington machine . . . as a positive spur” to his composition (Bosanquet 248).<sup>20</sup> Accordingly, one should not forget that the typewriter also permitted the post-Poundian “composition by field,” with its emphasis on “voice” and “breath,” to emerge in mid-century America. As Charles Olson recalls, “It is the advantage of the typewriter that, due to its rigidity and its space precisions, it can, for a poet, indicate exactly the breath, the pauses, the suspensions even of syllables, the juxtapositions even of parts of phrases, which he intends” (22).

More fundamentally significant, perhaps, is the relationship of twentieth-century experimental writing—with the sort of materially focused recombinatory procedures I have described in Brown’s readies, or what Kittler would call a “rebus” (278)—to the typewriter’s presentation of unalphabetized, material letter forms waiting to be endlessly combined through physical actions. With mnemonic songs and picture books, the alphabet, and hence language itself, is insistently naturalized for us from a very early age. By 1920, Louis Aragon could present the ideological telos of that naturalized alphabet as a “Suicide”:

A b c d e f  
g h i j k l  
m n o p q  
r s t u v w  
x y z

The typewriter both defamiliarizes the alphabet, dispersing and redistributing the letters out of their familiar sequence, and also materializes those letters into metal keys which offer a physical resistance not lost on those who can still recall, in the current world of cushioned computer keypads, typing on pre-electric machines. With only a bit of macho melodramatics, Jack London recounts the physical requirements of the early typewriters:

The keys of that machine had to be hit so hard that to one outside the house it sounded like distant thunder or some one breaking up the furniture. I had to hit the keys so hard that I strained my first fingers to the elbows, while the ends of my fingers were blisters burst and blistered again. (quoted in Seltzer 15)

In William Carlos Williams’s “A Novelette,” a work roughly contemporaneous with the readies anthology, the good doctor intervenes in Aragon’s “Suicide” with a written prescription that suggests the deep relationship between modernist writing and the mechanical media of its production. With a comment that could have come from either Brown or Kittler, Williams asserts what had been known since the 1888 Toronto congress, which agreed to standardize typewriter keyboards. “This is the alphabet q w e r t y u i o p a s d f g h j k l z x c v b n m. The extraordinary thing is that no one has yet taken the trouble to write it out fully” (282). Announcing, if belatedly, the paradigm shift away from the ideology of what Joyce had called the “ABCEDmindedness” of “Alphybettyformed verbiage,” this may well be the most profound and revolutionary sentence Williams ever wrote. “The greatest literary masterpiece,” as Jean Cocteau asserted, “is no more than an alphabet in disorder” (epigraph to Nichol n.p.).

Accordingly, one might note that the symbolic typography of the readies (\$, #, %, +, etc.) is not so much that of the compositor’s box as of the modern typewriter keyboard, aligning it firmly with a visual vocabulary drawn from Williams’s new, modernist alphabet. The emphasis given to medial technologies by Williams, Brown, and Kittler suggests one significant critique of McGann’s thesis, which remains silent on the impact of major new technologies such as film. Indeed, the Lumière brothers, one might recall, gave their first public screening in 1895, the same year that Crane published his volume. McGann takes as his starting point William Morris’s assertion that “you can’t have art without resistance in the material” (or, to be cute about it: ohms is where the art is), but if McGann pays a long overdue attention to the “textual [pre-]conditions” of literature, he slights the mechanisms for producing and manipulating that material. In a discussion of the reliance on “authorial intention” implicit in McGann’s argument, Johanna Drucker has pointed out that there are “many levels at which design decisions are made” (84), and I would want to



elaborate on her observation and suggest that a greater attention to technological specifics would remind us of the obvious: certain media permit certain effects, so that a text's visual prosody—the potential for overprinting, say—has a different constraint when produced by letterpress, off-set, typewriter, or monotype or Aldus PageMaker.

Conversely, Brown's anthology also illustrates the dangers which attend constructing literary histories based on technological innovation. Richard Lanham and Marjorie Perloff, for instance, have recently argued quite brilliantly for the effects of digital media on contemporary poetry. Technologies like the computer, they claim, have made us aware of the material, visual surface of the text and the myth of a transparent language. In Lanham's shorthand, the "electronic word" makes us "look AT it, rather than THROUGH it" (109). Whether arguing for the "the role . . . [electronic] technology has in shaping the . . . language of poetry" (Perloff 2-3), or predicting the ways in which that technology will affect the reader's interaction with poetic texts, both scholars are careful to note the precedents for such material awareness, including a medieval manuscript tradition and the work of the Italian and Russian Futurists. However, they both also run the risk of losing sight of such recurrent histories at precisely the moment of offering predictions and explanations of causality. A classification of literature according to criteria like a text's awareness of its medial noise or material status might prove a useful alternative to standard, highly fraught classifications like "modernism" and "post-modernism." To argue that technology makes one aware of the material text is an important first step in explaining why certain writing might be part of such a category, but it does not begin to account for the particulars of those texts.

To look at those particulars with the "visual surface" of Brown's readings in mind requires certain qualifications to any techno-literary history. On the one hand, of course, poems like D. J. Enright's "The Typewriter Revolution," or the *cannem figuratum* of John Hollander's 1969 *Types of Shape*, are typographically aware, but trivial and surprisingly boring in their conservatism. Enright's poem, which in 1971 heralds the revolution a century late, exploits typographic "errors" to achieve, at its best, only the adolescent, summer-camp-song wit of replacing "naughty" words with near rhymes ("Fart-far" in place of forty-four, or

"banus" in place of "bonus"). Enright misses the paths a more thoughtful engagement with the typewriter might have revealed. Charles Bernstein, in contrast, is one poet who has explored those paths in works like *Veil* and "Lift Off," both of which take full advantage of the mechanics of the IBM Selectric. This is not the place for a full reading of Bernstein's rich and evocative poems, but even a brief consideration will suggest that unlike Enright's "typewriter" poem, Bernstein's "typewriter correction ribbon" poem is considerably more innovative. To take just one of its themes, "Lift Off" illustrates a great deal about the fundamental operation of language. The poem is notable not so much for its nonsense, but for how much meaning can be recovered from its text, which suggests the extent to which we are preconditioned to make connections and construct familiar narratives with the slightest amounts of information. By attending to the sheer materiality of written language, the poem illustrates the "obVrs" (obverse) of the fact that any meaning will be accompanied by some medial "noise." Even pure noise produces *some* residual meaning.<sup>21</sup> Forcing its reader to actively decide whether the chance-produced found-text constitutes "muuu<sup>7</sup>ssidor 3nois" (i.e., music or noise), "Lift Off" underscores the way in which letters "accTogether / inether.nesoiss" (act together in their noises) to creates meaning in the "sytu visio" (visible site) of even the most conventional, seemingly transparent text. One should note, moreover, that in the end Bernstein's poem sacrifices none of the humor which Enright strives for, such as the campy irony of the legible "WHATEVER"—capitalized and surrounded by white space—which comes after lines of apparent nonsense. Ventriloquizing for the reader's anticipated response, the word is given the French article *le* as if it were commenting on the new, foreign language produced by the exigencies of electric typewriting—or on the space-age ("liftoff") computer-code gibberish that it so resembles.

Bernstein's poem reminds us that even if the computer "[re-]introduces and focuses [for the mainstream writer] all the rhetorical themes advanced by the arts from Futurism onward" (Lanham 17), or that a poem cannot "exist in the United States today that has not been shaped by the electronic culture that has produced it" (Perloff xiii), the visual surface of that digitally charged contemporary writing is

still far more similar to than different from the experiments of the analogue-influenced readies. Indeed, given the similarity between the experiments of the readies and those—like Bernstein’s “Lift-Off”—that have followed decades later, one might suspect that today’s avant-garde is still responding more to the film and the phonograph than to digital electronics. The history of the digital, computer-driven revolution of the word (“2000” in Kittler’s terminology) will only be written perhaps on the eve of yet another revolution, the first shots of which have yet to be heard.

Whatever the ultimate impact of medial technologies on visual prosody, any effect on literature will probably follow their effect on non-literary texts, just as Brown’s reading machine followed microfilm, ticker-tape, and the moving electronic advertisements and news headlines that changed the face of the urban landscape in the 1920s. Brown paid close attention to the changing face of language under its new material circumstances, and many of the optically oriented readies invite the reader to follow his example. In fact, one of the first entries in the anthology, Hilaire Hiler’s “Hang-Over,” thematically engages Brown’s discernment of such texts and allegorically reinforces his example of careful reading. Brown equated modern commercial language with that of his new modernist literature; he claimed to be unable to distinguish between his literary and financial careers and confessed that he read the Dow Jones ticker-tape as literature. (Tellingly, “money,” in Kittler’s modern discourse network, “standardizes” all messages [359].) In Hiler’s moralizing urban legend, a tardy attention to precisely that language of commerce and advertising brings on the story’s surprise ending. Hiler’s ready centers on a man who becomes diverted from his drunken homeward stagger by the sight of a stranger loitering in the shadows. He follows her inside the darkened house to bed, later wakes for a drink, and then goes to the bathroom against her strident pleas: “NO!-NON!-Cheripas-la-au-fond-du-couloir-pas-la-je-t-en-prie!” The ready concludes with a shift from the man’s Leopold-Bloom-like consciousness (and interest in cakes of soap)

his-eye-fell-on-three-or-four-cakes-of-soap - - - - -  
 whitewrappers-blocklettering-loved-to-read-wrappers- -  
 and-advertisedirection- - - - -

to the block-lettered words of the wrapper itself. In contrast with the alternately unspaced and hyphenated text which precedes it, the concluding words of Hiler’s text, like the “advertisedirection” which they replicate, stand stark against the white page, so that the man’s and the reader’s realization, as well as their experience of reading, are simultaneous:

Savon Brot Frères à l’huile de chalmagre exclusivement destinée au traitement de la lèpre.

This soap, or “savon,” further emphasizes the collective experience; *savon*, of course, is the third-person plural conjugation of *savoir*: “we know.”

Just such a system of discreet figures separated by a contrasting space defines, for Kittler, the new media in the discourse network of “1900.” The movies, for instance, provide an illusion of motion only because of the blank strips which separate each still and the black space which surrounds the screen, just as type only signifies through the blank spaces between letters and their stark contrast with the white page. Hiler’s ready emphasizes Kittler’s observation at several levels. The words of the text itself, for instance, physically combine through manipulations of the negative (white) space of the page, so that the man’s “imitation-absinth” reappears—like a hang-over—a few lines later when the last two words in the elided text “whatinthe” themselves form an “imitation” of “absinthe.” At the level of narrative, the man finds himself in a darkness—the light above the metro out, the lights of the street lamps spaced too far apart—which does not allow him to properly differentiate dark forms. Like the letters of type poorly spaced or printed on a black page, this darkness, in the terms of media theory, becomes “noise”: a figure recorded quite literally by Hiler’s Joycean transformation of “darkness” to “darknoise.” Similarly, the signifying flesh of the woman forms a dark shape against the “whitewrapper” of her dress as she stands in the shadows between the white separators of a gate in the long, unbroken line of a wall. Her flesh, that is, becomes like the dark print between the separating white of the page in the long, unbroken, hyphenated lines of Hiler’s text. The man’s problem, like that of the audience for Brown’s

anthology, is essentially one of reading. Unlike the soap wrappers, which he reads too late, the man fails to discern what kind of person he sees. The woman stands—both literally and figuratively—as an unread figure (graphic representation), character (printed letter-form) and type (printing font): the allegorical leper. Hiller's story literalizes the observation that bodies, since the interventions of modern discourse networks, "have come to present 'themselves,' that is, themselves as surfaces, to an almost obscene degree" (Pfeiffer 2).

If Kittler's media analysis allows a better purchase on works like the *readies*, Brown's anthology itself serves as a lens that sharpens the focus on several important criticisms of Kittler's work. The foregrounded presence of the radio in several of the *readies*, for instance, suggests at least a fourth term in Kittler's triumvirate of typewriter, phonograph, and movie (one might also want to consider the cable telegraph and the proliferation of other mechanisms as well). Beyond a more precise history of modernist material culture, the inclusion of another term would force a revision of the odd Lacanian inflection with which Kittler casts his triad (see esp. 246). Such an oversight should not imply, however, that Kittler has paid too little attention to technology. Indeed, if McGarrigle fails to notice technology sufficiently, Kittler's concentration is dangerously excessive. Several of the *readies*, and Brown's theorizing in particular, display an uncritical celebration of the technological and a naive trust in its powers. This romanticizing of technology—a legacy of futurism which passes directly through the *readies* all the way to figures like John Cage—might also be discerned in Kittler's work, where machines are read romantically and hermeneutically just as the "book of Nature" once was. Moreover, despite his impressive archival work, Kittler regards those machines with a certain ahistoricism, refusing to connect the medial technologies to concurrent structures of social and political power.

Bodies and medial inscriptions are conflated in the synecdoche "hand," and Kittler's argument is also seriously challenged when Brown includes a *handwriting* sample in the form of one of his calligraphic poems and then traces the history of medium-focused texts and "optical poetry" beyond Crane to the pre-mechanical days of manuscript illumination ("Appendix" 163, 186). Brown's essay thus

runs counter to Kittler's distinction between handwriting and type-writing by illustrating the obvious fact that the signifying potential of pen and parchment operated on a field of chromatic difference long before the typewriter could have been a guide. Moreover, Brown—whose earlier book of optical poems was titled, significantly, *1450-1950*—recognizes the long history of printing and the importance of the advent of moveable type in the fifteenth century:

1450-invention-moveable-type-Gutenberg- - - - -  
Wynkyn-de-Worde-Jimmy-the-Ink-Caxton-thought- - - -  
Chinese-centuries-before-printed-thousand-page-books-  
on-silk-leaves ("Appendix" 184)

This generous genealogy of type contradicts Kittler's more facile distinctions and his failure to differentiate between modernism and a pre-typewriter age of the printing-press. Ignoring the previous revolution in type, yet still needing to differentiate between two different "media" of writing in his two discourse networks, Kittler is left with an unmechanical epoch that leads him to cast "Woman" as a medial technology. This in turn forces him to separate spoken and written language throughout the first half of the book in an anti-Derridean maneuver which he later reverses in favor of a more doctrinaire Derridean formulation. Indeed, Brown's fluid history, with its continuous hyphenation, might well remind readers that all of Kittler's strict and obsessive binary oppositions—which extend from his 1800/1900 thesis to accommodate large-scale rhetorical and compositional structures as well as to the smallest details of book design and layout—sit uncomfortably with his eclectic methodology, which relies mainly on theoretical positions that have explicitly argued against such binary structures.<sup>22</sup>

Any of these points could be developed further, of course, but rather than pursue them in a thorough theoretical critique of Kittler's work, I want to consider those stylistic similarities with Brown's anthology that provide the critical reader with another tack. Some of the very points at which Kittler's scholarship seems weakest are precisely those points where his rhetoric most closely approaches the *readies*. Like most of the *readies*, Kittler's text employs an insistent present tense with a condensation that might at times be taken for

“telegraphese.”<sup>23</sup> Noting a relation to film stills, Kittler characterizes such condensation in his discussion of modernist literature: “Time shrank for cultured writers/readers until ‘the longest stories’ were ‘pulled together in short, brilliant minutes’” (325). Identically, Kittler’s own “short, brilliant” prose condenses “the longest stories” of entire centuries into brief instances through a series of examples which might each be taken as an “instantaneous exposure or snapshot” (370). That is, Kittler’s own text is congruent with the speed and compression which defined modernist literature in general—and the readies in particular—for both their defender (Brown) and detractor (Komroff). Correspondingly, Kittler’s habit of allowing single, disparate and apparently trivial instances to bear the burden of representing an entire “discourse network” is not particularly convincing in the face of heterogeneous historical periods with multiple discourse networks operating simultaneously. (“Apparent exceptions do not alter the fact,” Kittler protests at a particularly egregious moment [357].) This style does, however, rhyme with the singular absorption and overbearing hyperbole of manifesto writers like Marinetti, Komroff and Brown, who all share the same insistent tone and propensity for dramatic contrasts, simplified generalizations and shocking, outrageous (but nonetheless often insightful and compelling) statements.

Corroborating this characterization, David Wellbery introduces the English translation of Kittler’s book as faithfully retaining the original’s self-conscious contrast with the stylistics of traditional German scholarship, and he provides several alternative genres for the work: “*Discourse Networks* is a constructivist assemblage, a model for a chess game, a machine diagram” (Kittler xxv, xxvi). I want to close by offering one more genre. Just as Brown treats his hypothetical reading machine as though it were a device already firmly established in the landscape of modernity, Kittler, throughout his archival study, reads literary fiction as though it were inevitably and baldly factual in its revelation of empirical historical conditions. He considers “literary” and “expository” texts to be indistinguishable, if not equivalent. Taking this suspect historiographic procedure as a subtly suggested protocol for engaging Kittler’s own work, one might well read *Discourse Networks* not as expository “literary theory,” “media studies”

or “history”—but as “literature.”<sup>24</sup> Such a reading would transform Robert Holub’s cautionary description of Kittler’s book into something more like a solid affirmation:

The reader will frequently have the impression that the author is not writing to communicate, but to amuse himself. His text is a tapestry of leitmotifs, puns, and cryptic pronouncements, which at times make it fascinating to read, but somewhat difficult to comprehend as scholarship. (643)

For examples of Kittler’s quirky torquing of scholarly apparatuses, one need only consider the entertaining “Reference Matter” section of his book (some ninety pages long), which repays the close reading normally reserved for more “literary” genres. In the “Notes,” Kittler plays with layout and repeatedly cites Pink Floyd lyrics alongside references to Goethe and Kant (see, e.g., 401, 381, 414). In the “Index of Persons,” this deadpan presentation continues with entries followed by the potentially useful inclusion of information about academic degree, profession, and the dates of birth and death (Pink Floyd, for one, is referenced as “rock band,” “[1965-1986]”). Some of these professional entries sound merely odd—“Wagner, Cosima . . . Ph.D. honoris causa,” “Pinthus, Kurt . . . reader of manuscripts”—but others are decidedly ironic. Wassily Kandinsky is listed as “lawyer,” André Breton as “male nurse,” Kurt Schwitters as “draftsman,” while Stéphane Mallarmé gets remembered for being an “English teacher at a lycée in Paris.” While these irreverent parodies of the language of bureaucratic paperwork can be downright funny (“Hille, Peter . . . bohemian,” “Lespinasse, Julie de . . . salon lady,” “Mesmer, Oskar . . . magnetizer”), the dates are often perversely morbid. Entries are elaborated to record certain persons as “suicides,” and Kittler fastidiously notes all those who “died in a mental ward” or “under the guillotine.” This play within the formal constraints of a genre usually reserved for only the most utilitarian communication of information is not always so overt, and the astute reader will note that Plato’s name—significantly—is followed by a single page number only.

“Post-hermeneutic criticism stops making sense,” Wellbery announces, providing us with yet another trendy sound-bite of jargon (Kittler ix). But he also reminds readers that “writing to communi-

cate”—both as a goal and also as a possibility—has been repeatedly questioned over the last century, just as the line between scholarship and other genres has been blurred. In fact, contemporary art, with its characteristically cross-genre and intermedia nature, has made explicit what Stein, Wittgenstein and Bob Brown put into practice long ago: “composition as explanation.” Continuing their tradition, some of the best “theory” and “scholarship” in the last several decades has turned out to be some of the best “poetry” as well. The “poetic” has largely transmigrated from the corpse of lyric verse to the body of other genres under the exorcising words of writers like Roland Barthes, Steve McCaffery, Charles Bernstein, Jacques Derrida, Robert Smithson and Susan Howe. Kittler—as Bob Brown’s readies help one to see—takes his place as a major figure in this post-hermeneutic dispensation. “Wherever sense ends, enjoyment begins: a pleasure in the margins that a discourse network of pure signifiers leaves to its victims” (303). Make yourself at home.

## NOTES

1. Brown, “Appendix,” 177. Two earlier versions of a section from Brown’s essay (“The Readies” and “My Reading Machine”) appeared in both the literary and popular press. Additionally, a brief description of Brown’s machine, an invitation for contributions to the anthology, and a preview of some contributions appeared in *Morada* 5 (December 1930). By 1932, “readie” had entered “Transition’s Revolution of the Word Dictionary” (323).
2. The most notable absence is James Joyce. Jerome McGann lists Harry Crosby and Ernest Hemingway as supplying pieces to the volume, although neither name appears in the anthology (89).
3. Hugh Ford (whose work is more documentary than critical), Jerome McGann (surprisingly), and Cary Nelson (even more surprisingly) all omit mention of this aspect of the readies.
4. When the *Little Review* asked “What do you look forward to?” Loy replied “The release of atomic energy”; her response to the questionnaire was printed in the May, 1929 issue and is reproduced in *The Last Lunar Baedeker*, 305.
5. Compare Brown’s proposal with the invention suggested in Knut Hamsun’s novel *Hunger* (first published in 1890 and translated into English in 1920): an “electronic psalm-book” with “electric letters that could give light in the dark!” (31). The distance between Brown and Hamsun is marked by the fact that the latter’s electronic “reading machine” serves as an example of the height of lunatic absurdity.
6. In an exactly contemporaneous essay, George Antheil implies some of the limits

to Brown’s technological enthusiasms: “can you imagine a sonata being especially written for the new resources of the Victrola? Or a new picture painted solely to be photographed by the new resources of photography? . . . it is nonsense to speak of them with awe, just because they belong to the realm of electricity and machinery” (59). Modernist technophilia was rarely as unconflicted as Brown’s. The “revolution of the word,” one will recall, was to take place against “the industrialization of expression” (Jolas, “Statement,” 175), and already by 1932 the call was tellingly changed: “in the face of machine-mammonism, we feel the necessity of a revolution of the soul” (Jolas, “Preface,” 1).

7. Jones was also against “words of unnecessary length” and “‘tions lys, nesses’, etc. where possible” (Brown, “Appendix,” 199). Cf. the similar wording of Brown’s own statement: “You can . . . dwell on the ‘the’s’ ‘of’s’ and ‘but’s’ for minutes or hours if they interest you that much” (Brown, “Appendix,” 197).

8. Theo van Doesburg claimed “that this copious use of slashes, lines, bars, and dots is kitsch just as much as the earlier habitual use of rosettes, little birds, and typographical ornaments.” One should recall that the readies’ typographic dynamism was not the only look available to the avant-garde at the time, and van Doesburg is representative of those who argued for a “new elementary typography” against the “new baroque” of a modernist book design whose “aggressive attitude is not justified by anything” in its subject matter (80-82).

9. In referring to a “talking book,” Brown may have had in mind not only the “get rich quick” invention proposed by Roger Babson, but also actual inventions like the children’s picture book with accompanying animal noises featured in *La Nature* in 1898 (reprinted in de Vries, 184).

10. Examples of these manipulations can be located, respectively, in the *Readies* anthology at 148, 79, 123, 15, 83-92, and 93-98.

11. For a very different, but equally radical (visual) treatment of a similar theme, compare the minimalism of this section to the frantic rayonist confusion of Kazimir Malevich’s *Simultaneous Death of a Man in an Aeroplane and at the Railway*. The lithograph, executed for Alexei Kruchenykh, appeared in the collaborative artists’ book *Vzoral’ (Exploidity)* in 1913.

12. Brown is replying to Pound’s assertion that “ANY BLOKE CAN EXPERIMENT,” which stood alone as a section to his essay “Our Contemporaries And Others” (151). In the contemporaneous *Demonics*, Brown makes similar play with what “Ezra says”; one poem is entitled “Ez, I sez, sez I, Ez” (83).

13. Later, in the bibliomastic section of the same passage, Joyce lists a volume bearing on Jones’s narrative of a woman struggling through her math lesson while listening to the radio: “Should Ladies learn Music or Mathematics?” (307).

14. I have been unable to determine the publisher of Williams’s poem, which appeared in May 1931 in what seems to be a popular magazine; the text is taken from an uncataloged page fragment inserted in the copy of *Pagany* (Winter 1930) now in The Bancroft Library, University of California at Berkeley. The first stanza reads:

Come O orthopedic Muse,  
Analyze the funny feet

That all the modern poets use.  
 Make my day-dreams indiscreet,  
 Put my senses all to rout  
 And make my brain a muddy mess  
 So I may trace and write about  
 The gutter of my conscience.

15. Such “dogmatic statements based on the positivistic notion of perpetual advance” were the very language of contemporary marketing—the phrase is Matthew Josephson’s description of Ford Motor Company advertisement copy (95). However, Brown’s enthusiasm for new technologies was ultimately tempered by his unrelenting demands for speed. In contrast to the movies, Brown found television, only four years old at the time, “too static” and “too slow” (*Demonics* 25).

16. The references to these technologies can be located in Brown’s “Appendix” at 157, 184, 195, 179, 207, 165, 164, 172 and 181. As early as 1894, equipment for projecting messages onto clouds (consisting essentially of a fixed-focus arc lamp, a large mirror and cardboard cut outs) had been installed atop the Pulitzer Building in New York (see de Vries 93-4).

17. In Kittler’s account, the typewriter was particularly important because it effected the social and demographic changes which brought more women into the commercial and academic arenas; Kittler’s typewriter re-oriented the Freudian subject by taking the phallically charged stylus away from the writer and making both sexes equal before the keyboard (see especially 199-200, 351-2). In his anti-readie manifesto, included as a readie in the middle of the anthology, Manuel Komroff objects to the readies’ potential for precisely just such a castrating erasure: “Your reading machine destroys this interplay [between masculine and feminine]. The words take on a bastard voice—a voice that is neither man nor woman” (111-112). Kittler elaborates the physical relationship between machine and body which his psychosexual reading of the typewriter metaphorically implies, and which his “discourse network” explicitly includes, by theorizing a “body with a typewritten corpus” “which is a machine among machines” (290, 219), and in which “the diverse local centers of the brain-physiological localization doctrine are linked together in the typewriter” (290). In short, Kittler argues that “in its nervous system, the body itself is a medial apparatus and an elaborate technology” (xiv). Identically, Brown describes the medial technology of his brain as a reading machine (“Appendix” 168). He associates not only the author’s body with the machine (“I oozed type,” he confesses, until “I was almost a book myself” [“Appendix” 167, 154]), but also the machine with a body: he invites readers to come witness the prototype device at Cagnes-sur-Mer and “see it in the flesh” (“Appendix” 168, emphasis supplied).

18. Brown later states, “we were merely well paid stenographers taking our own dictations direct on the machine” (“Appendix” 156).

19. By the late 1890s James’s carpal tunnel syndrome prevented him from physically writing. For additional comments on James’s compositional practice, see Kittler (especially 356), Bosanquet and Seltzer (who also provide an important investigation

of the mechanics of naturalist writing in a machine culture).

20. Bosanquet goes on to note that James “found it more difficult to compose to the music of any other make” and “found it almost disconcerting to speak to something that made no responsive sound at all” (248).

21. For a convincing and poetic account of the mutually deconstructive relationship between message and noise, see Serres.

22. Kittler’s work is extraordinarily syncretic. Written under the sign of Foucault, his work is an unreconciled patchwork of divergent theories that it endlessly incorporates but fails to assimilate, citing without comment Baudrillard, Derrida, Lacan, Deleuze & Guattari, among others.

23. Wellbery makes this point in his “Foreword” (Kittler xxvi). Compare Brown, “Appendix,” 184.

24. Stanford University Press suggests the first two genres on the book cover.

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EXPLORATIONS OF  
PACIFIC RIM COMMUNITY IN  
GARY SNYDER'S MYTHS & TEXTS

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In *Routes: Travel and Translation in the Late Twentieth Century*, anthropologist James Clifford discusses a variety of postmodern predicaments resulting from increased contact among global or "traveling" cultures. "Travel," as Clifford attempts to define it throughout his "collage" of essays and personal notes, encompasses "an increasingly complex range of experiences: practices of crossing and interaction that [have] troubled the localism of many common assumptions about culture" (3). Although Clifford sometimes apologizes for his imperfect explanation of travel and its effects, he reminds all members of "heterogeneous modernity" how difficult it is to see the interactive processes that condition or "translate" our being. Part of the problem is our own myopia. As Clifford and other contemporary scholars of diaspora would have us recognize, we too often focus on "roots" of culture, and but not on the "routes" of our cultural contacts. We focus too much on the location of culture, and too little on the displacement that results from an endless series of global/local encounters.

Clifford's thesis finds its apotheosis in "Fort Ross Meditation," the luminous personal essay that closes *Routes*. "I'm looking for history at Fort Ross," Clifford writes, journal-style. "I want to understand my location among others in time and space" (301). Clifford's location, geographically speaking, is on the northern California coast, at the site of a Russian-American Company fort abandoned in 1842, yet the routes he espies extend far beyond that site. As his perspective shifts from local place to global space, Clifford comes to understand that extended movements along the "rim of the Pacific"—arrivals and retreats of human populations, migrations of animals, introductions