Chapter Title: A POETICS OF THE GLOBAL

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## A POETICS OF THE GLOBAL

### Global Poetics

In the period immediately following World War II, the world experienced dramatic changes in the way people consumed and shared ideas. Shifts in the kinds of media that were not only available but increasingly dominant in everyday life were at the base of many of those changes. For example, even in Britain in the late 1930s, for every person who purchased a daily newspaper, two people bought tickets to see a film; the transistor, invented in 1947, allowed radio to reach even the most remote locations; and television, the long playing record, and magnetic recording tape irreversibly transformed the mediascape (Hobsbawm 193; 264; 265). The concrete poets emerged out of and wrote in response to these shifts that allowed for greater connectivity across a reformatted globe, but that also prompted philosophical questions about how information is processed and received.

In 1957, Augusto de Campos published an article in the *Jornal do Brasil* daily newspaper that began with a sentence fragment paragraph – more like a software command than an opening to a literary essay – that captures the position concrete poetry operated in: "Instigating question: What does

a concrete poem communicate?" The line's purposeful ungrammaticality goes unremarked by de Campos, though, in subsequent paragraphs he does draw the reader's attention to something else he feels might be odd: the idea that a poem might *communicate* rather than *express*. He offers this idea in counterposition to the American philosopher Susanne Langer who, particularly in her book *Problems of Art*, resists speaking of poetry in terms of "communication," reserving the term for what happens in everyday discourse, "language in its literal use" (Langer 71). In another formally idiosyncratic critical gesture, de Campos provides a list of seven passages from Langer's text that illustrate what he considers her romantic, conservative definition of poetry and art as something that operates in a region beyond the discursive, everyday language, in a rarified and inspired space where "what is created is a composed and shaped apparition of a new human experience" (148). Concrete poetry rejects this division, de Campos argues, and embraces the possibilities of communication as a way of intervening in the discursive spaces of the everyday.

In addition to his stripped down critical style, de Campos communicates something else in his article, specifically in relation to the work he chooses to engage. Langer is not a literary critic, but a philosopher of language, and operates in de Campos's text as evidence of the breadth of Brazilian concrete poetry's intellectual engagement. De Campos, his brother Haroldo, and their collaborator Décio Pignatari were not just interested in responding to a literary tradition in Brazil, the United States, and Europe, nor simply to a history of avant-garde art and music they were also familiar with, but were attempting to attach poetry to an idea of language and culture that was consistently agitated by technologies of communication. The electronic exchange of messages produced a pervasive sense of acceleration, and by choosing that specific text of Langer's – a text that was published also in 1957 – de Campos, a Brazilian poet in São Paulo, was showing how quickly the spaces that were generally considered remote and peripheral had become connected to those considered the centres. I can only conclude that de Campos received an advance review copy from the publisher; the publication date of his article was 9 January 1957 (de Campos 167).

A year before de Campos's article, Eugen Gomringer, in an introduction to a planned – though never published – international anthology of concrete poetry, articulated a similar fascination with the new, technologically-produced global spaces. He strikes a confident tone throughout his text, celebrating the poetry's connection to the "contemporary scientific-technical

view of the world" and its contribution to the "synthetic-rationalistic world of tomorrow." His meeting with Décio Pignatari in 1955 maintains a central influence in his thinking:

> International-supranational. It is a significant characteristic of the existential necessity of concrete poetry that creations such as those brought together in this volume began to appear almost simultaneously in Europe and South America and that the attitude which made the creation and defense of such structures possible manifested itself here as it did there. (Gomringer, "Concrete" 68)

Two concepts loom large in Gomringer and de Campos's texts, and form the central questions for this chapter. The first is the relationship between concrete poetry and the technological developments of the period. How did poets embrace and/or resist the media transformations of their moment? Which shifts in everyday living brought about by advances in communication technology were they responding to? The second concept is the emerging feeling of the global – to be distinguished, in later chapters, from the "international" – that comes out in the poets' postures towards the limits of national languages. How did this feeling of the global come about? Who were its champions? Who were its opponents? What was to be embraced, and what to be feared?

Four years after his orphaned introduction, Gomringer's penned his manifesto "The Poem as a Functional Object," where he reiterates the concrete poets' aim to compose poetry on a global scale. His text matches its title's modernist, industrial character by outlining a rational approach to poetic production, claiming that the purpose of concrete poetry is not the "reduction of language itself but that of greater flexibility and freedom of communication." Linking the poetry to the everyday experience of travel and circulation, he argues that poems should strive to be "as easily understood as signs in an airport or traffic signs" (70). He rejects readings that function within a national scale, exemplifying a position within concrete poetry that parallels contemporary debates over how to read and consider literature in its global cultural context. The juxtaposition of the radical formal experiments of the concrete poets against the development of technologies that altered the scale of the globe for its citizens grounds concrete poetry within its historical context, but also opens up questions about which methodologies are most effective for negotiating world literature.

Poems by Décio Pignatari and the Czech collaborative pair Josef Hiršal and Bohumila Grögerová serve as the ground for an initial investigation. Pignatari's "Beba Coca Cola" (1957), as published in Mary Ellen Solt's anthology, provides a critical record of the emerging global imaginary that concrete poetry sought to engage. Printed in Coca-Cola red and white, the Portuguese slogan "beba coca cola" permutes into "babe cola," "beba coca," "babe cola caco," "caco," "cola," and finally, simply "cloaca" (108; see fig. 2.1).[1] The English translation, by Solt and Maria José Quieroz, using the reverse colour scheme – red ink on a white background – appears at the bottom of the page, and although it expresses the basic anti-advertisement status of the poem, it is problematic for what it leaves out. It cannot, for example, express the linguistic shifts and overlaps between Spanish and Portuguese that occur in the poem. And it neglects, in its attempt to faithfully reproduce the form of the poem, to include the multiple meanings of some of the words. "Cola" doesn't just mean *glue*, but can mean *tail*; "caco" can mean *thief*; and "cloaca" can mean *sewer pipe*, but can also refer to a digestive tract. Solt and Quieroz consequently diminish, in their emphasis on the physical (drink, drool, glass, shard), the anti-imperialist stance of the poem. It is not a poem against advertising, but a poem against the advertisement of a specific economic and ideological position, one that might have been better expressed by the translation of "caco" as *thief*, or "cola" as a perhaps more explicit term for *tail*.

Coca-Cola was, after all, a powerful cultural image of the United States' aggressive economic colonization, or "coca-colonization" as it has come to be known in contemporary globalization discourse.[2] Describing the political force the soft drink possessed in the reconstruction of France under the Marshall Plan, the historian Irwin M. Wall writes that "Coca-Cola was 'the most American thing in America,' a product marketed by mass advertising, symbolic of high consumption, and tributary to the success of free enterprise; for its president, James Farley, a politically powerful anti-Communist, it contained the 'essence of capitalism' in every bottle" (65). Possessing such a full symbolic value on an international scale, Coca-Cola iconography could function as an immediate signifier of the American cultural and political project in the postwar period. A *Time* magazine article from March 1950 reports the French resistance to what they also referred to as the "coca-colonization" of French culture, and significantly emphasizes the effect of Coca-Cola's advertising on the French language as a concern. The article cites a letter from a M. Dreyfus to the *Paris Herald*: "I like Coca-Cola, […] but [Coca-Cola's advertising] has ripped deep into what the French treasure most – their language. One now sees posters and trucks bearing the inscription

beba    coca cola
babe         cola
beba    coca
babe    cola caco
caco
cola

        cloaca

drink   coca cola
drool        glue
drink   coca(ine)
drool   glue shard
shard
glue

        cesspool

Figure 2.1
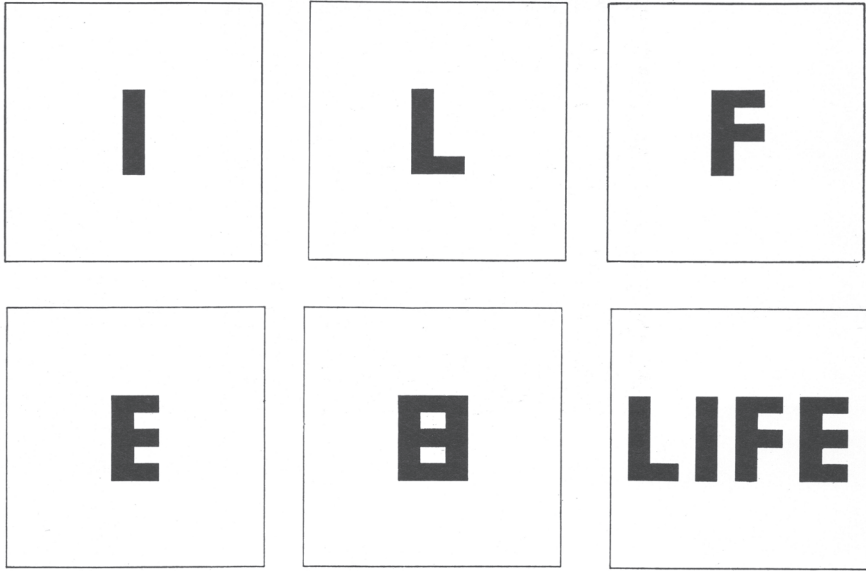**Décio Pignatari. "Beba Coca Cola"**

Figure 2.2
**Décio Pignatari. "LIFE"**

'Buvez Coca-Cola.' You can say 'Buvez du Coca-Cola' or 'Buvez le Coca-Cola' but you cannot say 'Buvez Coca-Cola' because this is pidgin French" ("Pause" 33). The example highlights the effect advertising had on culture through the very techniques that Gomringer identifies in his manifesto: the reduction of language, the standardization of communication, and the insertion of poetry into expanded spaces of circulation. While different poets adopted different postures towards the commodification of language, with some, like the Brazilians, positioning themselves against it, and others taking advantage of its possibilities for a greater audience, the strategy of international-supranational poetry was central to the formation of the international movement.

Also emphasizing an emergent global condition, Pignatari's "LIFE," as published in *Noigandres* 4 (1958), is a kinetic poem, with one large letter on the first four pages, forcing the reader to experience the sans-serif letters *I*, *L*, *F*, and *E*, as an accumulation of intersecting lines (see fig. 2.2). The vertical line that comprises the *I* has a slightly thinner line attached to its base to create the *L*, then another line, identical to that attached to the foot in *L*, is added to the centre of the thicker, vertical line, and the whole letter is rotated 180 degrees on its horizontal axis to create an *F*. A third line in the dimensions of the previous two horizontal lines is added to make the *E*, to which is then added another line the size and thickness of the original *I*, enclosing the figure in what appears to be a digital-clock's eight, but that is also a representation of the ancient Chinese calligraphic symbol for the sun. The poem's final panel has the four letters arranged into the word "LIFE," at first glance suggesting a natural relationship between the Chinese and English representations of a common terrestrial phenomenon: the life-giving capabilities of the sun.

This poem would be relatively uninteresting if it were limited to the formal coherence that allows such a reading, however. What sets it up as an important cultural index for a new global identity is not the fact that it is a poem written by a Brazilian in English, nor that it refers to an ideographic language that previous critics of concrete and visual poetry have been only too eager to embrace as metaphor, following the path of Ezra Pound and Ernest Fenollosa. The significance of the poem comes in large part from its font and its final panel, where "LIFE" is printed as it would appear on the cover of *LIFE* magazine, an international, glossy mechanism for the dissemination of American ideas and desires, paralleling it with the ancient concept of the sun, the cosmic entity that provides light, warmth, and the possibility of life. The reader would flip through the poem the way s/he would flip through a popular magazine; neither the solid, geometric letters nor their position on

manifest

1 2 3 4 5 6 7 8 9 ; : !
q w e r t z u i o p ü
a s d f g h j k l ö ä
y x c v b n m , . - ?

Figure 2.3
**Bohumila Grögerová and Josef Hiršal. "Manifest"**

the page invite close attention. Solt, despite recognizing the anti-advertising quality of "Beba Coca-Cola," and despite recognizing Pignatari's reference to the font of *LIFE* magazine, mistakes the political for the principally poetic when she writes that the poem "affirms life in a visual succession based upon the architectural structure of the letters of the word LIFE (out of usual order) culminating by the kind of happy accident possible in concrete poetry in the Chinese ideogram for the sun out of which the word LIFE radiates" (Solt, *Concrete* 15). There is much more to the work that a largely apolitical American anthologist might overlook. The contemporaneous global implications of Chinese and American iconography placed within their respective ideological conditions – America under Dwight Eisenhower, China under Mao Zedong – and the position of a Brazilian poet with a socialist, anti-imperialist perspective provides the terrain for understanding concrete poetry's position in the production of a new global cultural imaginary. The modularity of the poem, as well, in both its page/panel construction and in its accretive use of the constituent lines or marks of the letters, links to contemporaneous experiments in modernist architecture, where standardization of form sought to homogenize urban spaces around the world, and in the process create a rational collective human society.

A poem by the collaborative pair of Czechoslovakian poets Bohumila Grögerová and Josef Hiršal, printed as part of Hansjörg Mayer's *Futura* pamphlet series in 1966, displays a similar posture towards the internationalization of language (see fig. 2.3). The fact that Hiršal and Grögerova are a collaborative pair is in itself deserving of notice, and might perhaps be significant for understanding the pose towards authorship that concrete poetry allowed for through its veritable excision of the lyrical "I" and its embrace of the collective experience of language. In the case of "Manifest," the reader apprehends the letters as they would appear on a keyboard, but if the reader is North American or British, or Spanish or French, s/he feels a disruption as s/he reads the letters from left to right. Instead of QWERTY, the top layer of letters reads "QWERTZ." The *Y* many typists are accustomed to seeing between the *T* and the *U* is missing, and it takes a little while to find it exiled to the lower left-hand corner, where the *Z* usually is. Further examination of the arrangement of letters uncovers three additional letters, all with umlauts, on the right hand side: ü, ä, and ö. This would seem natural to a German speaker, for it is, in fact, a German QWERTZ keyboard, where the *Y* and the *Z* are positioned based on the probability of their use, as they would be in English. For touch-typists used to the QWERTY layout, the poem's defamiliarization of a specific kind of alphabetic arrangement is one they feel in their

hands. It prompts a bodily response, one of estrangement. The memory of a keyboard layout is not a visual memory. Ask typists to recall the layout of a keyboard and they will likely close their eyes, or look at their fingers, which they will move as they recite each letter: muscle memory. A German speaker encountering the poem will not have the same, bodily defamiliarization with the letters, and it is that schism between readers that makes the poem's function complex when positioned within an international sphere.

Adding to the poem's power is the fact that the poets are Czech, and face the same linguistically occupied and varied consciousness I discussed in relation to Vladimir Burda's fingerprint poem in chapter 1. In this context, the poem becomes even more entangled with histories of industry and violence, as Czechoslovakia had only been a nation separate from the Austro-Hungarian empire for twenty years before it was invaded by the Nazis near the beginning of World War II, an occupation that brought both language and German technology back into a space that had only recently begun to experience a national independence. And while it is important to recognize that Czech-language typewriters also use a QWERTZ layout, the presence of the ü, ä, and ö is specifically German. None of those letters appear in the Czech alphabet. Letters that do commonly appear, and that are left out by the poets – and the typewriter manufacturers in many cases – are Á, Č, Ď, É, Ě, *Ch*, Í, Ň, Ó, Ř, Š, Ť, Ú, Ů, Ý, and Ž.

By presenting the letters as they are popularly experienced, the poets situate their work within the mechanical, materially-determined arena for language that is a consequence of the mass-production and consumption of typewriters. The title they give to the piece, or the word that appears on the top of the page, "manifest," adds a further ambiguity to the poem. Does it refer to the tradition of the manifesto in poetry and art of the twentieth century? Does it hold up the typewriter as a tool of political and cultural defense, offering it as both a symbol of writing as well as a standard technology of increased circulation and production of ideas? Or, perhaps most interestingly, does it refer to the list of a transport ship's cargo, to be checked by customs officers who guard national ports of entry? Writing in the eastern bloc nation of Czechoslovakia, Grögerová and Hiršal likely meant it in all three ways.

The attention paid by the above poems to the contemporaneous conditions of language and to constituent elements beyond what the human eye or ear is accustomed to also played a central role in the mechanical approach to language and information that characterized early experiments in computation, experiments that connect to the larger modernist project in very

specific ways: the development of a new global understanding, the flattening of culture, the dream of a universal, scientific language, and so on. Although the idea of the *global* is by no means specific to the middle of the twentieth century or limited to modernism, it seems clear that concrete poetry, in its compositional techniques and attention to distribution across various, disparate geographies, provides a record of a *qualitative* shift in the understanding of what comprised globality in the wake of World War II.

## Bombs and Bombes

There are a number of historical forces that position Pignatari's "Beba Coca Cola" and "LIFE" within a politically charged context. The first is the Hydrogen bomb, whose globalizing power is easy to understand. Nuclear fallout does not recognize national borders, and although the Cold War is popularly recognized as hardening those borders, its constant threat of terrestrial annihilation forced nations to recognize structures beyond themselves. The vehicle by which that threat was delivered was often the large-format pages of *LIFE* magazine, which chronicled the American nuclear tests from Operation Crossroads in 1946 through the 1960s. That the Americans developed and used the most devastating technology of destruction, and then continued to develop and test even more destructive technology, is not a trauma limited to the United States and Japan alone. In the 1950s and '60s, tests of nuclear weapons were being held by France, the Soviet Union, Britain, and China, and the proliferation of weapons had reached a point where the Earth could be destroyed several times over.[3] The continued presence of trace quantities of Strontium-90 – a bone-seeking radioactive isotope released into the stratosphere by fallout from nuclear testing – in humans around the globe allows us to conceptualize a disturbing but eminently modern global community. It is difficult to imagine from a twenty-first-century perspective just how transformative an *invention* nuclear technology was. In many ways, it invented a cohesive world by threatening to end it.

The wider cultural output of the time speaks to the centrality of nuclear weapons in the global consciousness. Stanley Kubrick's *Dr Strangelove or: How I Learned to Stop Worrying and Love the Bomb* (1964) persists as one of the most effective records of the anxiety of the period, as it satirically unravels the argument used by nuclear nations that the weapons were designed for peace, not war. The plot of the film centers on a doomsday mechanism designed to ensure that if a war were initiated by the United

States, the Soviet Union would automatically launch its entire nuclear arsenal in retaliation, resulting in the complete annihilation of the planet. When a rogue American brigadier general – Jack D. Ripper, played by Sterling Hayden – suffering from paranoid fantasies of communist infiltration of the water supply, initiates an attack on the Soviet Union, it is a series of breakdowns in the chain of command and a communication malfunction that lead to a mechanically unavoidable mutually assured destruction. The sequence that opens the film depicts two planes refuelling in midair, set to music that suggests the aircraft are performing a sort of mechanical copulation. After the credits, the first scene takes place at an airforce base, where large rotating satellite dishes emphasize the central role of communication in modern military culture. The first character to appear does so in a room lined with large computers, emerging from behind a large paper printout. This is Group Captain Lionel Mandrake, played by Peter Sellers, the rational character foil to Hayden's Ripper. Ripper orders the confiscation of all radios and shuts down communication into and out of the base in oder to ensure his plan goes undiscovered, but Mandrake comes across a portable radio and turns it on to discover it is playing soothing jazz music rather than an emergency broadcast about a Soviet nuclear attack. At this point, communications technologies emerge as a sort of character within the film, part fool, part malicious spirit. Much of the rising action of the film stems from a phone conversation between the president of the United States and the prime minister of the Soviet Union in which the audience hears only the president's side. In combination with the damaged radio in the B52 bomber en route to attack the Soviet Union, the phone call between superpowers signifies a strong critique of the faith in communication and weapon technology to safeguard the lives of humans, and represents the expanded reach of particular nations and their conflicts into the realm of global catastrophe.

Recent large-scale museum exhibitions have also exposed how influential the threat of nuclear war was on the painting and visual art of the period, and it is difficult for even our contemporary, terror-stricken global population to understand the weight and power nuclear war presented.[4] Reconsidering concrete poetry with this in mind charges the work with an urgency and significance that has to this point been neglected by critics in large part – and ironically – because of its expansive, consciously global circulation. The global is a space that has only relatively recently become fathomable in a consciousness that for so long fooled itself into identifying as *post*war, and hence beyond the bomb. The threat of a final and permanent violence within

a putatively peaceful world is an anxiety we can only recognize now, having become accustomed to it. What is more difficult to imagine is a world without it, contained and indefinite.

There is another "bomb" that is similarly absent from examinations of concrete poetry, one which both highlights the globality of the work and has implications for the formal qualities of the poems. It is Alan Turing's Bombe, the rudimentary computer designed by the British mathematician and his group – though modelled in large part after a machine designed by the Polish cryptanalyst Marian Rejewski – to crack the Nazi's Enigma code by mechanically sifting through millions of potential word combinations obtained from intercepted Nazi radio transmissions.[5] The Enigma machine encrypted messages by a mechanism that used three to four rotors in a fixed position, which meant that if one did not have the key for that particular message, there were seventeen thousand, five hundred and seventy-five settings that would result in completely unintelligible language, and just one which might make sense as a military command. The number of combinations swelled to close to half a million potential messages when the Nazis switched to the five rotor model later in the campaign. Turing's Bombe was able to mechanically read all the potential messages and would stop on any that mathematically adhered to German phrases, at which point a translator would check to see if it was significant. While the activities of Turing and his code-breaking colleagues at Bletchley Park remained classified until the mid-1970s, the technical knowledge produced during the war by Rejewski, Turing, et al., would seep out into the development of early commercial computer technology.

This mathematical approach to language comprehension and *deciphering* would, just over a decade later, find an aesthetic parallel in the work of the German concrete poet Max Bense, as well as in the aspirations for a universally recognizable poetry expressed by Gomringer. The effect of the mechanical or statistical treatment of language appears in many concrete poems whose composition adopts a permutational strategy, linking process to form in a manner that recognizes the diminished communication involved in commercialized or propagandistic discourse. For example, in Haroldo de Campos's "ALEA I – VARIAÇÕES SEMÂNTICAS (Uma Epicomédia de Bôlso)" (1962–3), a list of positive words are presented above a nearly identical list of negative words, the only difference between the two being the substitution of one or two letters per word (see fig. 2.4).[6] "O ADMIRÁVEL" in the first list, which Scottish concrete poet Edwin Morgan translates as "THE UNSURPASSABLE," becomes "O ADMERDÁVEL," or "THE UNSHITPASTABLE," in the second. This poem displays the anxiety of

communication in an age of mechanization, where transmissions in which a single letter might be misunderstood could have serious ramifications for peace. Language had moved onto a sharper ledge with the expanded scale of communication.

The bottom section of the poem begins with two nonsense words, "NERUM / DIVOL," which shift and combine with each other until the end of the poem, when they re-order into "MUNDO / LIVRE," or "FREEWORLD." On their way they also morph into words that seem potentially meaningful, yet foreign; many of them appear to be Latin roots, which de Campos was hyperaware of, being a translator and speaker of several languages. Morgan translates a note by de Campos printed on the same page as the poem as "*program* do it yourself / the reader (operator) / may go on at pleasure / doing new semantic variations / within the given parameter," but because he chooses to translate "MUNDO LIVRE" as a single word, "FREEWORLD," he leaves out the rest of the note, that translates as "The possible permutations of the different letters of two five letter words add up to 3 628 800" (105–6), and that solidifies the mathematical approach to the scale of language in certain permutational poems.[7] The slight differences between antonymous words and between nonsense and sense words relates directly to the mechanical approach to language provided by early computational experiments that relied on programs to recognize logical constructions: if $x$ then $y$; if $y$ then $z$, etc. The terminal lines of the poem, "MUNDO LIVRE" / "FREEWORLD," therefore points directly to the emancipatory promise of technology, a promise of which de Campos, like Pignatari, was sceptical.

The compositional strategies made possible by the contemporaneous computer technologies received a heavy emphasis by the curator Jasia Reichardt, whose 1968 exhibition at the Institute for Contemporary Art in London, *Cybernetic Serendipity*, included work by engineers, artists, scientists, and poets in a manner that refused to identify which work belonged to which field. In her introduction to her edited collection *Cybernetics, Art, and Ideas*, where she reflects on the lessons of the exhibition, she brings into focus both the influence of mechanical modes of communication on concrete poetry and the new, international spaces these modes had created: "One thing that foreigners, computers and poets have in common is that they make unexpected linguistic associations" ("Cybernetics" 11). In another essay in the collection, the German poet Max Bense, one of the most prolific theorists of the concrete poetry movement in the 1960s and a professor of the philosophy of technology, scientific theory, and mathematical logic at the Technical University of Stuttgart, points out:

> Today we have not only mathematical logic and a mathematical linguistics, but also a gradually evolving mathematical aesthetics. It distinguishes between the "material carrier" of a work of art and the "aesthetic state" achieved by means of the carrier. The process is devoid of subjective interpretation and deals objectively with specific elements of the "aesthetic state" or as one might say the specific elements of the "aesthetic reality." ("Projects" 57)

This idea of a diminished or absent subject position recurs in several of the poets' writings, but Bense's is perhaps the most extreme, celebrating the new, disinterested aesthetic of calculation, probability, and algorithms. The Noigandres group address a similar antisubjective pose in their "Pilot Plan": "Concrete poetry: total responsibility before language. Thorough realism. Against a poetry of expression, subjective and hedonistic. To create precise problems and to solve them in terms of sensible language" (A. de Campos, H. de Campos, and Pignatari 72). The poets were interested in subjectivities beyond those created by national language, and machines and their maths seemed to be nationless. The subject the poets required, and that is implicit in their refutation of the traditional poetic subject, was an emergent collective consciousness, created by a common emphasis on the experience of language in an internationalized social sphere. The barriers of nuanced semantic meaning crumble under a reduced, and therefore more accessible, sign system that aimed for a basic understanding across geographies: a kind of poetic Esperanto based on the rational functions of mathematics and the primary geometry of letters. That this collective understanding was created in large part by structures of capital, within the rapid expansion of communication technologies, advertising, and the circulation of goods and products within a mid-century period of affluence, is largely unaddressed by both the poets and critics.

In Henri Chopin's "Poem to Be Read Aloud," which dates from the mid-1960s, the concept of both the H-Bomb and Turing's machine meet in a permutational poem that is simply a column repeating the pattern "bombA / bombB / bombC / [...]." The poem announces its typewritten character, with some of the letters overinked and the terminal uppercase letters floating just out of alignment with the lowercase "bombs," a fact that distinguishes the work from the cleaner, fine printing aesthetic of Gomringer or the Noigandres poets. There is no variation on the pattern until "bombX," which Chopin repeats before moving on to "bombY / bombZ" (79; see fig. 2.5). The experience of looking at the poem is deceiving, as the eye assumes it recognizes the

## ALEA I — VARIAÇÕES SEMÂNTICAS

(uma epicomédia de bôlso)

Haroldo de Campos
1962/63

O ADMIRÁVEL o louvável o notável o adorável
o grandioso o fabuloso o fenomenal o colossal
o formidável o assombroso o miraculoso o maravilhoso
o generoso o excelso o portentoso o espaventoso
o espetacular o suntuário o feerífico o feérico
o meritíssimo o venerando o sacratíssimo o sereníssimo
o impoluto o incorrupto o intemerato o intimorato

O ADMERDÁVEL o loucrável o nojável o adourável
o ganglioso o flatuloso o fedormenal o culossádico
o fornicaldo o ascumbroso o iragulosso o matravisgoso
o degeneroso o incéstuo o pusdentoso o espasmventroso
o espertacular o supurário o feezífero o pestiférío
o merdentíssimo o venalando o cacratíssimo o sifelíssimo
o empaluto o encornupto o entumurado o intumorato

N E R U M
D I V O L
I V R E M
L U N D O
U N D O L
M I V R E
V O L U M
N E R I D
M E R U N
V I L O D
D O M U N
V R E L I
L U D O N
R I M E V
M O D U L
V E R I N
L O D U M
V R E N I
I D O L V
R U E N M
R E V I N
D O L U M
M I N D O
L U V R E
M U N D O
L I V R E

*programa* o leitor-operador é
convidado a extrair outras
variantes combinatórias
dentro do parâmetro semântico
dado
as possibilidades de permutação
entre dez letras diferentes
duas palavras de cinco letras cada
ascendem a 3.628.800

Figure 2.4

**Haroldo de Campos. "ALEA I – VARIAÇÕES SEMÂNTICAS"**

# ALEA I — SEMANTIC VARIATIONS
(a mock-pocket-epic)

Haroldo de Campos
translated into English by Edwin Morgan

THE UNSURPASSABLE the laudable the notable the adorable
the grandiose the fabulous the phenomenal the colossal
the formidable the astonishing the miraculous the marvellous
the generous the excelse the portentous the stunning
the spectacular the sumptuous the faerifying the faery
the supereminent the venerable the supersacred the supercelestial
the unpolluted the uncorrupted the inviolate the intrepid

THE UNSHITPASTABLE the lowbabble the nauseable the malodorable
the ganglious the flatulous the fetoranimal the cutarsadical
the fornicable the astinking the iratulous the matrocitous
the degenerous the insext the pustiferous the stomafuching
the tentacular the suppurous the faecifying the fevery
the supermuckent the veneravid the suprasacral the supersyphilable
the pollust the upcorpsed the violoose the tumorped

FEWERDOLR
FOWLREDER
DREERFLOW
LOWFEEDRR
FROWLEERD
REERFOWLD
FLEDWEROR
FREDERLOW
WEEDFLORR                          *program* do it yourself
FERROWELD                          the reader (operator)
REDFLOWER                          may go on at pleasure
FLEERWORD                          doing new semantic variations
FREEWORLD                          within the given parameter

pattern of the alphabet in this list of bombs – or bomb targets if "bomb" is read as an imperative verb – and only really catches the stutter at "bombX" when reading it aloud, following the instruction of the title. It is at this point that the reader sees and feels the poem differently, via a disruption Chopin often sought to locate in the relationship between language and the body. The poem operates as a warning against the fetishization of patterns, and of the too enthusiastic embrace of language as data to be fed into a programmed reader or machine. Is it a mechanical failure – a glitch? – on the part of the poet that has produced this error, or does the double *X* represent death, in the way that cartoons or comics place *X*s over the eyes of corpses? Or does it reflect an anxiety over the increased mechanization of communication, like Kubrick's *Dr Strangelove*? There is a critique of both bomb(e)s in this poem through the violence of the proliferation of the bomb as weapon as well as the disrupted pattern of a mechanical presentation. Other questions arise as well, especially in relation to how quotidian bombs had become in the post-war period, a period which was only postwar to some, as new, anticolonial wars in North Africa often strayed into France in the 1950s and '60s, and as the Cold War's nuclear testing dominated political discourse and kept the world on edge.[8] What happens at "BombE," where the English word "bomb" becomes the French, *bombe*? And how significant is the acoustic similarity between "bomb" and "poem" / *bombe* and *poème* for a poet who believes in the disruptive power of spoken language?

## Language Machines

The idea of mechanical language or communication that Chopin was working both in and through grew out of the rise in communication studies during the postwar period. An explanation of exactly how information was understood at the time will provide a context for how the permutational compositional strategies and reduced language of concrete poetry operated within the promise of advancements in communication networks and the contemporaneous theory. In this approach I am following Friedrich Kittler's lead in identifying a media-influenced discourse network, and the psychophysics – the effects that technologies have on the way humans at various times store and process information – involved in the production and reception of concrete poetry. Kittler distinguishes his method from what he disparages as the sociology of literature, critical readings that remain at a thematic level. He argues that literature does not simply provide
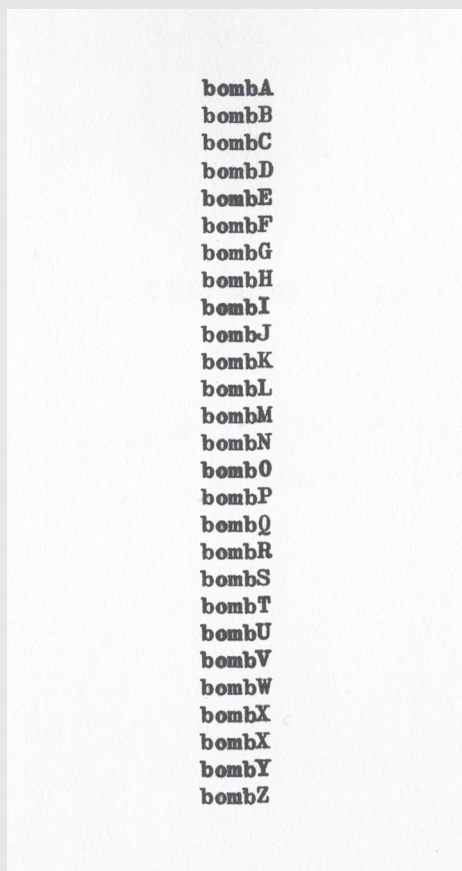
bombA
bombB
bombC
bombD
bombE
bombF
bombG
bombH
bombI
bombJ
bombK
bombL
bombM
bombN
bombO
bombP
bombQ
bombR
bombS
bombT
bombU
bombV
bombW
bombX
bombX
bombY
bombZ

Figure 2.5

**Henri Chopin. "Poem to Be Read Aloud"**

metaphorical access to historical shifts in production, where its characters might speak the anxieties of an age that have not been recorded in dominant histories. In his view, literature is much richer than that: "literature […] processes, stores, and transmits data, and [...] such operations in the age-old medium of the alphabet have the same technical positivity as they do in computers" (*Discourse Networks* 370). The wider field of media archeology similarly aims to comprehend how media affected populations throughout history, taking into account their relationship to previous media as well as the cultural ramifications of their adoption, recorded through material other than sale records and infrastructure development. As Erkki Huhtamo and Jussi Parikka point out, media archaeology owes a great debt to Kittler's investigations, and offers a counter-position to the study of new media, which often neglects the historical in favour of a celebration or panic over the possibilities of a new technologized future. My approach to the technological moment of the concrete poets is to show how recent shifts in media – both communicative and militaristic – offered new possibilities for thinking "language," or thinking "the globe."

The evidence that the poets were thinking about language *through* communication technologies is abundant. Haroldo de Campos writes about it explicitly in his critical essays; both Décio Pignatari and Max Bense taught information studies at post-secondary institutions; and poets themselves implemented mechanical modes of composition, both electronic and manual, in the production of their work. Eugen Gomringer, in a recent interview with Annette Gilbert, talks about how significant the concepts of cybernetics were to the Swiss-German poetic discourse, referring to an influential visit by the American cybernetician Norbert Wiener arranged by Bense. He also notes that in 1972, some time after his initial fascination with mechanical approaches to language, he was able to enter the title of one of his permutational poems "'kein fehler im system' [no error in the system] into one of the world's first computers, which was in [his] publisher's office filling a whole room. The permutation of the eighteen letters produced a two-sided output of several meters in length" (Gomringer, "Interview" n. pag.). The excitement Gomringer feels about language proliferating on its own, beyond a composing, feeling subject, is a major part of many concrete poets' engagement with the conditions of language at the time. An examination of what those conditions were, and how they provided both opportunities and challenges for a movement eager to cross borders and interrogate boundaries, both disciplinary and geographical, will help fill in some of the gaps in the critical treatment of concrete poetry to date.

Claude Shannon and Warren Weaver's *The Mathematical Theory of Communication* – first published in 1949 in *Scientific American*, as a condensed explanation of a 1948 study commissioned by the Bell Telephone Laboratories – and Norbert Wiener's work on cybernetics were both central to the development of new attitudes towards communication networks and the role of technology in everyday life. Weaver carefully defines *communication* early in his explanation of Shannon's more technical text as less an exchange of language than a description of "all the procedures by which one mind may affect another." This very broad definition, which implies a shift from human language to machine language and all its infrastructural components, is made even broader shortly after, through a significant and eerie expansion to the "procedures by means of which one mechanism (say automatic equipment to track an airplane and to compute its probable future positions) affects another mechanism (say a guided missile chasing this airplane)" (Shannon and Weaver 3).

Shannon and Weaver's scientific approach was a search for the quantifiable in a field where only the qualitative had previously been measured. They concerned themselves with measuring how much information could be communicated in a place and how well messages could be understood. Information was therefore separated from meaning: "Two messages, one of which is heavily loaded with meaning and the other which is pure nonsense, can be exactly equivalent, from the present viewpoint, as regards information […]. To be sure, this word information in communication theory relates not so much to what you *do* say, as to what you *could* say" (8). The semantic and material aspects become irrelevant; what is of primary concern is how accurately, or cleanly, a signal is received from a transmitter.

The move away from human communication toward a more general, mechanical communication replaced the Saussurean diagram of two faces whose minds are connected via mouths and ears with a series of boxes and arrows representing on one side the information source and transmitter, and on the other the receiver and destination. In the middle is a noise source, which is responsible for any degradation of the message in the process of transmission. The shift in diagrams (see figs. 2.6 and 2.7), on a very basic level, moves from the figurative to the geometric, a vector that can also be identified in concrete poetry's eradication of the lyrical poetic subject in favour of a detached coordinator of linguistic material. The Saussurean image even makes a point of distinguishing one of the heads from the other through slightly different facial features, perhaps in order to discourage the reader from confusing the diagram for one
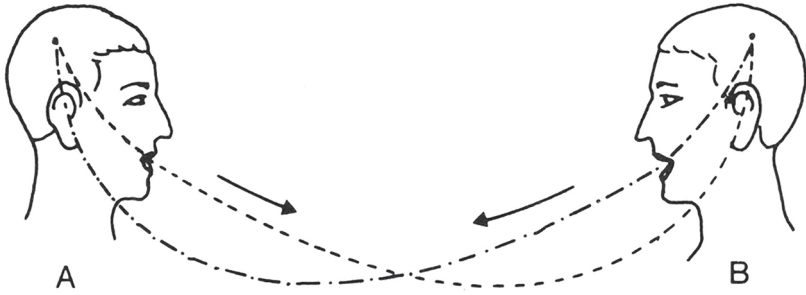
Figure 2.6

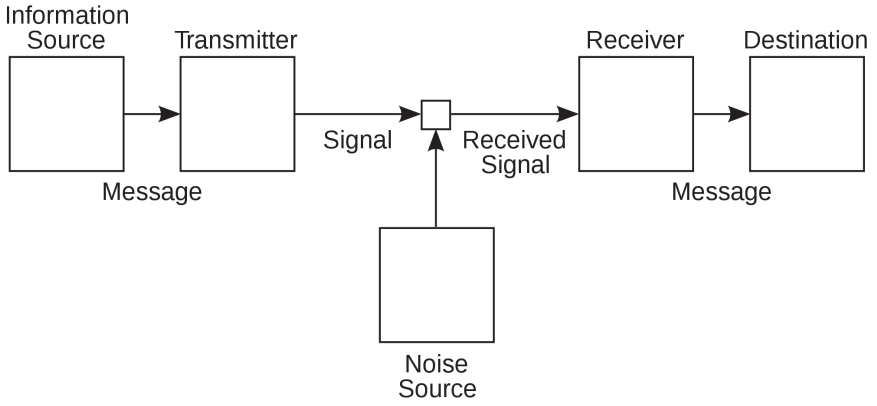**Ferdinand de Saussure. Diagram of communication model**

Figure 2.7

**Claude Shannon and Warren Weaver. Diagram of communication model**

of an inner monologue, or a mirror relationship, or twins. The Shannon and Weaver diagram displays no such anxiety, and celebrates the geometrical exactness of its diagram as a representation of standardized, mechanical communication, sourced in humans or otherwise. Added to the pattern are the transmitter and the receiver, two stages which structural linguistic analysis had no reason to identify, being satisfied with one human brain as the information source and the other as the destination. But what happens when those two brains are communicating over a telephone or a telegraph, or via radio waves? The brains become joined by exterior devices that are susceptible to noise or interruption, or, in the case of mechanical communication, are replaced altogether. This is a system of communication which does not require face-to-face explanation or dialogue; messages are consequently pared down to be quickly comprehended, a technique concrete poets would implement in order to expand their potential audience across barriers of time – as simultaneously present on the page instead of ordered in conventional poetic lines – and language – in a reduced and easily glossed vocabulary. Close proximity was no longer a requirement. The space of communication had exploded.

The mathematical character of Shannon's work comes in the statistical analysis of information. As Weaver points out, "That there are probabilities which exert a certain degree of control over the English language […] becomes obvious if one thinks, for example, of the fact that in our language the dictionary contains no words whatsoever in which the initial letter j is followed by b, c, d, f, g, j, k, l, q, r, t, v, w, x, or z; so that the probability is actually zero that an initial j be followed by any of these letters" (11). The measure of uncertainty which exists within a system of communication comprises for Weaver the concept of entropy: "a measure of the degree of randomness, or of 'shuffledness' if you will, in the situation; and the tendency of physical systems to become less and less organized, to become more and more perfectly shuffled" (12). Information, then, in any system, increases as the ability to predict a message decreases; entropy and information are in this way positively linked.

The concept of noise in a communication channel – the measure of degradation, disruption, or error in any transmission – can only result in increased uncertainty of a message, that according to the logic of Shannon and Weaver's "entropy = increased information" formula, means that increased noise results in an increase in information. Weaver is aware of the contradiction:

> This is a situation which beautifully illustrates the semantic
> trap into which one can fall if he [sic] does not remember that
> "information" is used here with a special meaning that measures
> freedom of choice and hence uncertainty as to what choice has been
> made. […] Uncertainty which arises by virtue of freedom of choice
> on the part of the sender is desirable uncertainty. Uncertainty
> which arises because of errors or because of the influence of noise is
> undesirable uncertainty. (19)

This idea of a desirable uncertainty, as it relates to the concept of entropy, is a
curious one throughout Weaver's text, as if the discovery of entropy within a
theory of communication, as opposed to a theory of heat or energy transfer,
has unlocked the scientific possibilities of linguistic analysis and opened a
frontier of mechanical thought.

This was the frontier Haroldo de Campos saw concrete poetry discovering, and how deeply he was influenced by notions of exactitude and quantification stemming from contemporary technologies comes through in his
1960 essay "The Informational Temperature of the Text":

> Information theory provides us with precise tools, free of visceral
> emotional appeals. In this way we can attempt to identify
> straightforwardly the linguistic and aesthetic characteristics
> which gave rise to the aforementioned censure and proceed to
> locate them and the poetic object which they distinguish in
> a wider process of formal evolution, as well as in the cultural
> context from which they derive their necessity and their
> justification. *(223)*

The essay is a riposte against those critics who condemn concrete poetry
for impoverishing language. De Campos counters that the poets are simply writing within the constraints of their moment, in the same way meter or form might have influenced poets in earlier moments. He cites the
work of Max Bense in making his argument for an aesthetic emerging out
of the mechanical. Displaying the depth of his engagement with the subject,
de Campos moves through the ideas of mathematician Benoit Mandelbrot,
the linguists George Zipf, G.A. Miller, and Charles Ogden, whose concept
of Basic English would seem attractive to a poet who sought an expanded,
international audience through a reduced language and a maximization of

communicative efficiency. This concept of increased meaning though a re-duced lexicon comes through in a passage de Campos cites from Miller's writing: "An increase in the size of the vocabulary is balanced by [a] decrease in the size of audience. A decrease in vocabulary is balanced by an increased audience. There seems to be no simple way to have a large vocabulary and a large audience at the same time" (quoted in de Campos 225). De Campos fuses this rational, logical approach to poetic production with the language of modernization, describing his and his fellow concrete poets as involved in an "industrial process," one which is historically distinct from the craftsman-ship that literature had to that point conjured, and which de Campos had earlier challenged in his response to Susanne Langer's philosophy. Concrete poems are "prototypes," emphasizing structure over "swarms of inarticulate feelings": "In this way [concrete poetry] coincides with the sense of a pro-gressively technical civilization within which it is postulated" (226).

The language de Campos uses in not only this essay, but in his earlier writing on concrete poetry as well, is rooted in a cultural shift towards the comfort of the mechanical that James Beniger locates within the innovations in manufacturing and travel in the nineteenth century. In his 1986 book, *The Control Revolution*, Beniger describes this shift as taking place within an understanding of "control," which he defines in a way that sounds very much like Shannon and Weaver's presentation of information: "the purpose-ful influence of behaviour, *however slight*" (8). He points to technological and structural changes that affected society in the eighteenth and nineteenth centuries – using the examples of rail travel, telegraphy, mass printing tech-nology, postal systems, and synchronized time zones, amongst others – as socially transforming our understanding of how information is distributed and received, and thus how, as social beings, we interact with each other. He offers the concept of rationalization, which he claims "might be defined as the destruction or ignoring of information in order to facilitate its pro-cessing," and as linked to the rise of the bureaucracy. He uses the example of "paperwork," specifically the limited spaces for input on standardized forms, as something that actually reduces the variability of data while also accumulating huge amounts of it (14–15). Like the Wittgensteinian maxim that the limits of our language are the limits of our world – because we exist in language we cannot imagine a space outside of it – this standardization of information controls our social being. From a poetic standpoint, this kind of control has historically been attractive for those who adhere to a revolution-ary political model, and would ideally be designed to include as many people

as possible. When attempting to influence the behaviours of people who speak other languages, it is necessary to have a common ground on which to meet them, however rudimentary that ground might be.

Central to this metaphor of control is the concept of information processing, and how humans could be understood as information-processing machines. Norbert Wiener spent a considerable amount of time theorizing the human being as a programmable organism that functions within a feedback loop between its sensory organs, which send information to the brain for processing, and its external environment. Part of the reason why this perspective became so widely embraced by thinkers in various fields was the introduction of statistical analysis into the field of physics, which offered a new approach to an area of research that could match the growth of scientific discovery. The crystalline laws of Newton that governed much of the advancement in physics in the eighteenth and nineteenth centuries were, in the twentieth century, beginning to crack. The application of statistical analysis of particle movement, for example, resulted in a recognition of the impossibility of complete accuracy. This turn, according to Wiener, had the effect that "physics now no longer claims to deal with what will always happen, but rather with what will happen with an overwhelming probability" (10). An effect of this embrace of *probability* was an optimistic sense of *possibility*.

N. Katherine Hayles identifies in Wiener's thinking, and in the discourse around cybernetics more generally, the beginnings of a post-structuralist understanding of language and human subjectivity: "[Wiener] questioned whether humans, animals, and machines have any 'essential' qualities that exist in themselves, apart from the web of relations that constituted them in discursive and communicative fields" (91). And indeed, the understanding of energy and information that grew out of the discipline of cybernetics had a lasting effect on how information continues to be conceptualized. In the Macy Conferences on Cybernetics, which were held annually from 1946–53, mathematicians, engineers, social scientists, and psychologists gathered to discuss the implications of the mechanization or rationalization of information, and the role of the human subject in processing that information. The purely quantifiable mode of information, the kind favoured by engineers and early computer scientists, was divorced from context in order to function with greater stability of meaning. This stability is paramount for formulae to function, and for theories of information to work across disciplines, but it exists only in abstraction. This position has a particularly modernist flavour

to it, as it imagines a universal calculating subject, who apprehends the world as varying sources of information, all of which operate within a theoretical logic of quantification.

The attendees of the Macy Conferences who challenged this mechanistic perspective were the social scientists, particularly the social anthropologists Margaret Mead and Gregory Bateson, and their daughter, Catherine Bateson. Catherine Bateson, in particular, disputed the idea that information can ever function in a closed system, for the energy of the observer necessarily influences the information gathered. Hayles writes through the Batesons' and Mead's anxieties around cybernetics to argue that such approaches to information assume a separation of mind and body, continuing a Western tradition antithetical to the body. This tradition – and the debate initiated by cybernetics – continues to be relevant today, where economic data and bio-data, both operating on a scale that would have been unimaginable to the participants in the Macy Conferences, carry a global significance for governmentality and geopolitical structures of power.

## "The Ethics Residing in the Audacity of Change"

The theorization of how advances in communication and information technologies impacted social organization and human subjectivity was developed much more comprehensively in the work of Marshall McLuhan, a literature professor and contemporary of Wiener. Since the publication of his first book, *The Mechanical Bride* (1951), which treated popular advertisements as high-culture to be carefully parsed and decoded, McLuhan had become fascinated by how media influences the ways that we deal with the world and each other. He manifested his theories in various modes, relatively quickly abandoning the academic treatise with its conventional lines of type and the mode of thinking those lines – these lines – encourage and taking up a more explorational method of criticism, using images, typography, film and sound to materially situate his argument that our media shape our consciousness. Following *Understanding Media: The Extensions of Man* (1964), in which he coined the phrase "the medium is the message," McLuhan collaborated with graphic designer Quentin Fiore[9] to produce *The Medium is the Massage: An Inventory of Effects* (1967), a text which, like concrete poetry, tries to match its form to its epoch by pairing words with images, and questioning the linear conventions of book technology. The text is laden with photographs, some

captioned and some left on their own, with short texts interspersed. The authors explain their strategy:

> The medium, or process of our time – electronic technology – is reshaping and restructuring patterns of social life. It is forcing us to reconsider and re-evaluate practically every thought, every action, and every institution formerly taken for granted. Everything is changing – you, your family, your neighborhood, your education, your job, your government, your relation to "the others." And they're changing dramatically. [...] It is impossible to understand social and cultural changes without a knowledge of the workings of media. (8)

This passage serves to contextualize the newness concrete poetry was writing through as a movement that emerged during a period of dramatic shifts in media. The traditional book, with its pages of unbroken text, had become insufficient in a time of electronic communication. The concrete poets felt the same way about the line, and the idea of the poetic subject: it was outdated, impotent.

What the advances in technology allowed for, intellectually, socially, and globally, and how these changes affected the strategies and concerns of the concrete poets remain significant questions, ones that challenge the very status of the book. McLuhan and Fiore embrace a return to pre-Gutenberg subjectivity, although with a language that should now strike readers as naïve and Eurocentric: "Ours is a brand-new world of allatonceness. 'Time' has ceased, 'space' has vanished. We now live in a global village ... a simultaneous happening. We are back in acoustic space. We have begun again to structure the primordial feeling, the tribal emotions from which a few centuries of literacy divorced us" (63).[10] The concrete poet Pierre Garnier welcomes a similar shift in a text that shares the embrace of new structures of meaning with his compatriot Chopin, who is quoted above:

> These kinds of poetry in their diversity as well as in their shared tendencies are driving forces, they are man come back, liberated from a pre-established language imposed from childhood on with its burden of ideas and moralities, at the root of the forces and working there aided by the most modern techniques and consciousness, like the cosmonaut in space – the ethics residing in the audacity of change. Joy in the absence of narrow certainties,

joy in the world open as it is, joy of creation in creation infinitely spacious, these kinds of poetry are not "fixed," they are constantly becoming. ("Position I of the International" 80)[11]

Both the concrete poets and McLuhan and Fiore implement similar techniques to evoke these recent perceptual shifts. The concrete poets emphasized the materiality of language: "Today 'Concrete Poetry' is the general term which inlcudes [sic] a large number of poetic-linguistic experiments characterized [...] by conscious study of the material and its structure [...]: material means the sum of all the signs with which we make poems" (Gomringer, "The Poem" 69).

Illustrating this point, Dieter Roth's "Some Variations on 4⁴" (1957) is simply an arrangement of *b*'s, *d*'s, *p*'s, and *q*'s in ways that emphasize their shapes over their sound referents, so that they become purely visual information (n. pag.; see fig 2.8). The poem illustrates the significance of orientation or perspective, even on the level of the letter. As readers – or should I say viewers? – we recognize some of the arrangements as letters: *dd* over *bb*, or *db* over *bd*, but others we recognize simply as shapes, as circles with lines attached. But we only have to rotate the page ninety degrees to see those shapes as letters again, proving that it is our habits that determine our readings, and our inflexibility that impedes recognition. Alternatively, a machine, which has no habits, could read the poem without any trouble if it were programmed to interpret specific shapes in various orientations or combinations. The machine is unimpeded by culture, and by the habits of a language community. It is the variations of the orientation, and of the relationship between the discrete groups of letters/shapes that give the piece its poetic charge, fulfilling the disruptive requirement of poetry. Roth inserts variability into an alphabet to make it opaque, to collapse signifier and signified, in order to expose the barriers we take as natural in our apprehension of language. The poem is a challenge to our habits and our stubbornness, and expresses a faith in the reader's ability to move outside of conventional reading strategies, encouraging us to reconsider the modes of thinking and communication that have brought us to this point in history.

This same challenge to habits, and to the knowledge those habits produce, is what drives McLuhan and Fiore. But *The Medium is the Massage* is less interested in foregrounding the materiality of language than the materiality of the book. Across two pages there is simply a photograph of two thumbs holding open a page as if they were the reader's, with "the book" printed at

the top (34–5; see fig. 2.9). Significantly, the thumbs belong to different bodies, perhaps, like Saussure's diagram, emphasizing the interrelational, necessarily collective condition of language.[12] Text is printed backwards on two subsequent pages, forcing readers to hold the book in front of a mirror to read it, and as a consequence to encounter an image of themselves in the corporeal act of reading; they are confronted with their own mirrored bodies looking at something other than their bodies, something that moves differently in the image than it feels in their hands. On the next two pages the text is printed upside down, again disrupting readers' expectations of how information gets communicated through the book form (54–7). These corporeal investigations of the act of reading, though in this case visual, share the strategy of disruption Chopin uses in his "Poem to Be Read Aloud," where it is the process of vocalization that makes the reader see the unseen, that breaks the trance of the printed word. And just as Roth reorients letters to disrupt the space of the poem, McLuhan and Fiore break the plane of the book, forcing readers to experience the tactility of media.

McLuhan and Fiore, as well as the concrete poets, emphasize the materiality of language and its implications for the body in an increasingly mediated sensory environment, and use similar techniques to argue their position.[13] Both use the fingerprint as metaphor for embodied information: an example of how the body is written, as well as how, by even the most basic interaction with a mark and surface, it writes, and is physically interpellated into an order of signification. An enlarged fingerprint on one page of *The Medium is the Massage* is repeated in mirrored form and reduced on the following page, beside the paragraph heading "You" (10–11). As discussed in chapter 1, Jean-François Bory matches their style in his anthology *Once Again* (1968), where the Czechoslovakian poet Vladimir Burda's (presumably) fingerprint is printed as a poem, accompanied by the German word for *I*, "ich," as well as Fluxus artist Alison Knowles's "Poem," which is a fingerprint repeated until the ink no longer registers. The eye of the Western reader, trained to experience a page from left to right, top to bottom, follows the illegibly white record of bodily information to an illegibly black record of bodily information, which is the opposite direction the poem was produced in (Burda 79; Knowles 96; see fig. 2.10 and 2.11). The traditional poetic, thinking subject is replaced by a material record of the bodily, feeling subject, as the signifying order is disrupted and readers and viewers are required to abandon their techniques of comprehension and to open up to new structures of communication, be they visual or tactile.
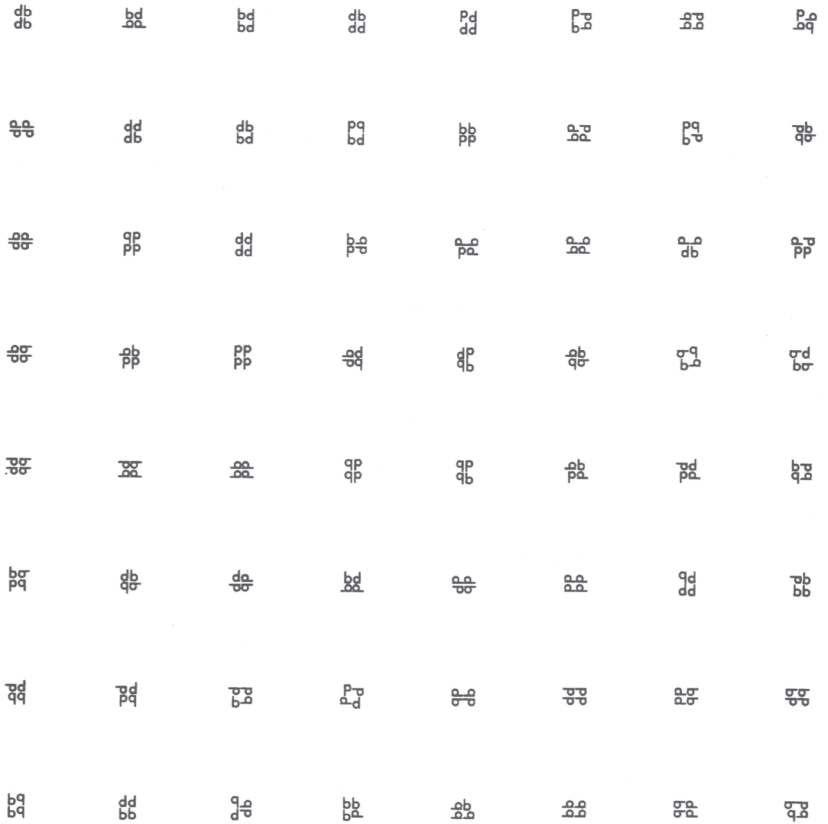
Figure 2.8

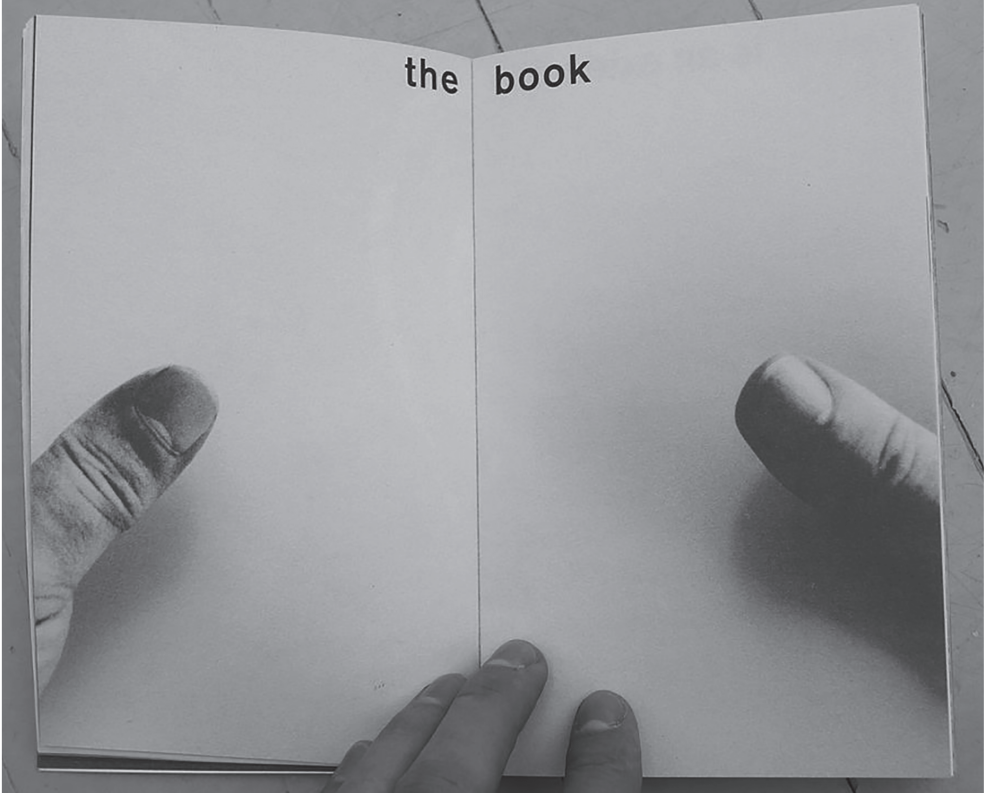**Dieter Roth. "Some Variations on 4⁴"**

Figure 2.9

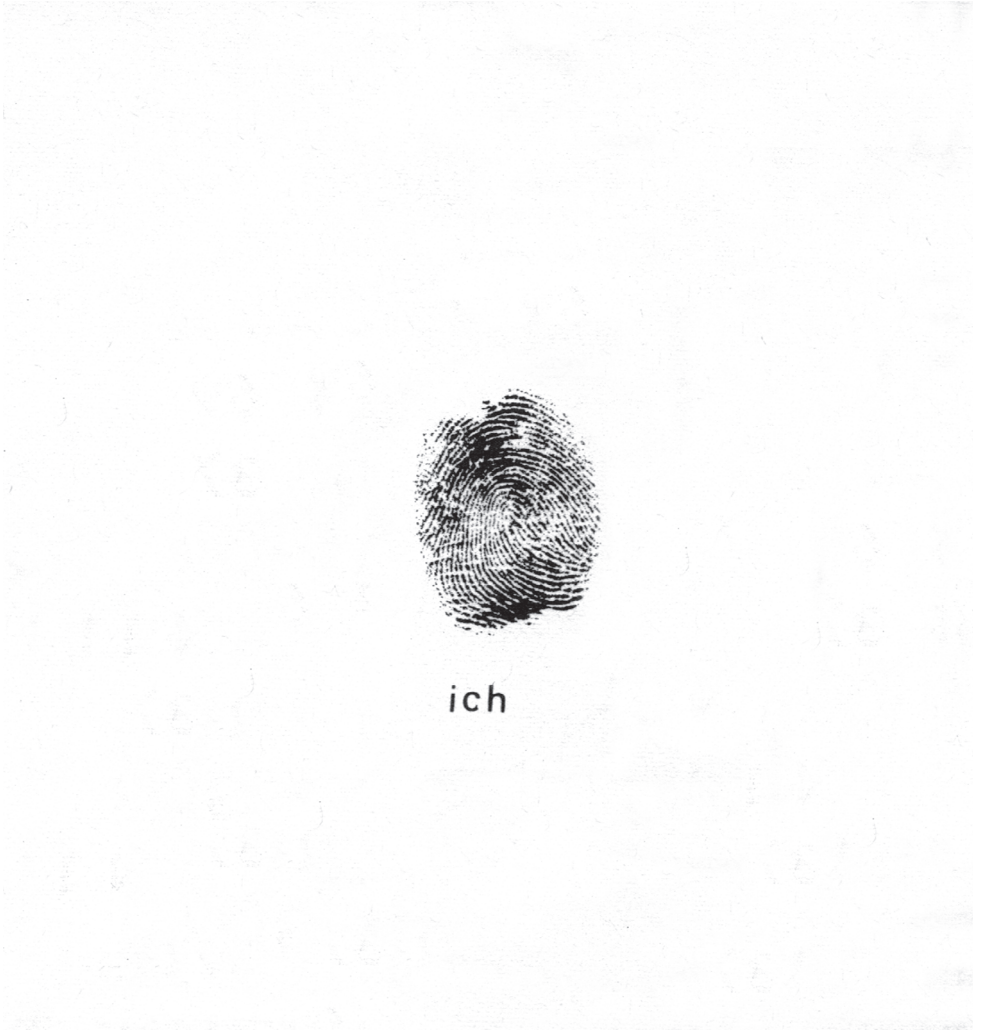**Marshall McLuhan and Quentin Fiore. Excerpt from *The Medium is the Massage***

ich

Figure 2.10
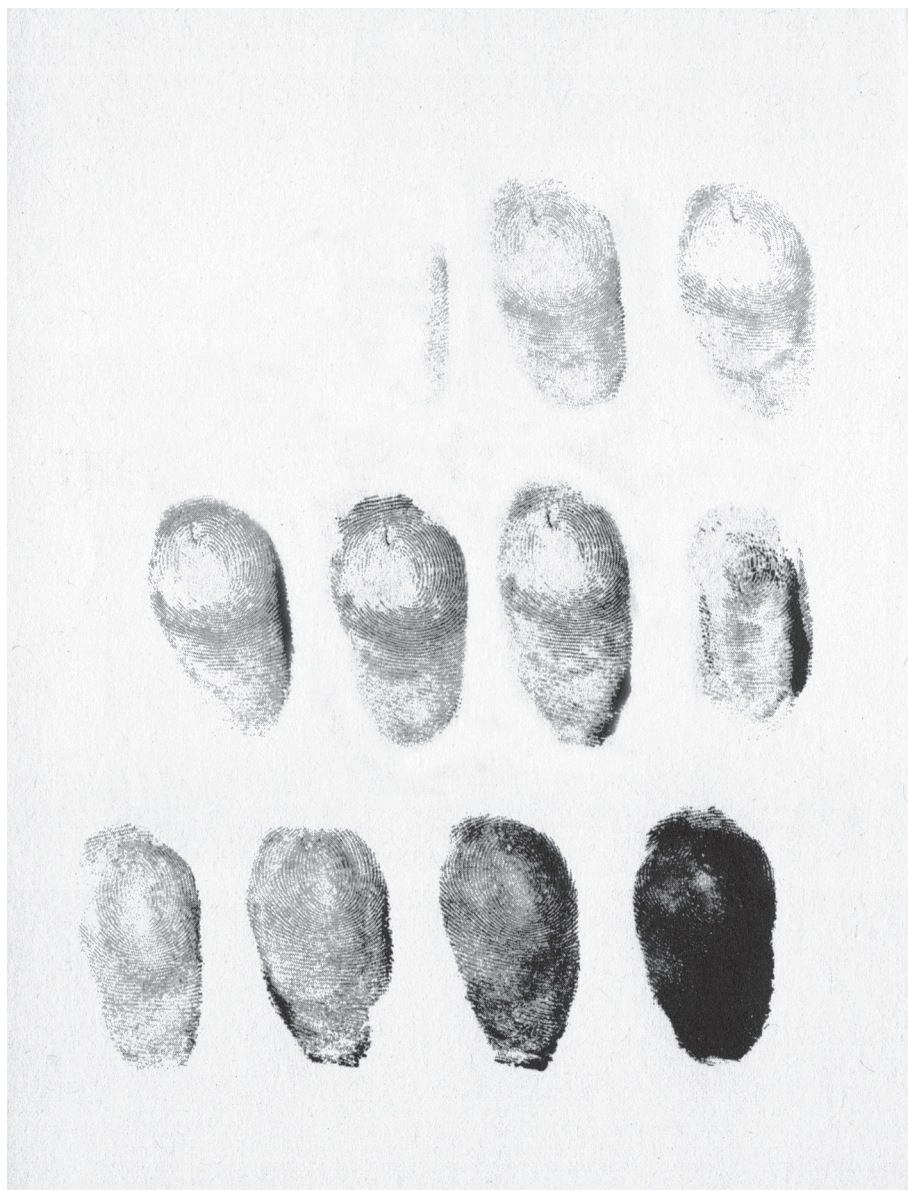**Vladimir Burda. "Ich"**

Figure 2.11
**Alison Knowles. "Poem"**

## Mapping the Transnational

The increased role electronic media played in everyday life across various geographies had tremendous historical ramifications for cultural production and social organization. It is difficult to overestimate the effects that shifts in technology, rapid postwar economic development, and new understandings of how nations operate in relation to each other had on the world around the middle of the twentieth century. Where Wiener and McLuhan might feel that speculation about the social effects of world communication is sufficient, the historian Eric Hobsbawm places the shifts in everyday life and global understanding within their socio-political context. In his immodestly titled book *The Age of Extremes: A History of the World, 1914–1991*, Hobsbawm negotiates a space between argument and statistics. Like his contemporary, the media theorist Friedrich Kittler, who links communication technologies and war,[14] Hobsbawm parallels the development of major social trends with the practices of the wars that marked the first half of the twentieth century. He points out that "twentieth century wars were mass wars in the sense that they used, and destroyed, hitherto inconceivable quantities of products in the course of fighting. Hence the German phrase *meterialschlacht* to describe the western battles of 1914–18 – battles of materials" (Hobsbawm 45). The infrastructure for war production was then integrated into a global market that produced and consumed increasing amounts of goods in a modernization project unprecedented in world history in its scale and rapidity.

Mass war demanded mass production, which, after the war, demanded mass labour and mass consumption: "World output of manufactures quadrupled between the early 1950s and the early 1970s and, what is even more impressive, world trade in manufactured products grew tenfold" (Hobsbawm 261). Hobsbawm links this drastic increase in production to rapid urbanization across the globe – "For 80 per cent of humanity the Middle Ages ended suddenly in the 1950s; or perhaps better still, they were *felt* to end in the 1960s" – but also to a triumphant phase of capitalism. Posed against the stagnating economies of communist nations, which were lagging behind in technology, the visible wealth of the middle classes and the generous welfare states created by the influence of Keynesian economic policies in developed nations were the most effective strategy for the containment of communism. It is out of this period, Hobsbawm argues, that the transnational economy emerged. He makes a clear distinction between the transnational and the international economies, however, noting that the latter was not a new development – nations had been exchanging goods for as long as there were nations to trade

with – although it was increasing rapidly, as a result of expanding markets and wealth. The transnational, though, began to appear in the 1960s and then developed more fully in the 1970s, and can be defined as "a system of economic activities for which state territories and state frontiers are not the basic framework, but merely complicating factors" (277). David Harvey provides some nuance to this process, locating it, in part, in the breakdown of the Bretton Woods System, which regulated international trade and currency exchange, beginning in 1968. What changed, Harvey argues, was not that national economies disappeared, but that the influence of one national economy in particular – the United States' – diminished. A global system in which the United States wielded a great deal of power gave way to a different global system "that was more decentralized, coordinated through the market, and [that] made the financial conditions of capitalism far more volatile" (Harvey, *Spaces* 61). The rhetoric that accompanied this shift emphasized its flexibility, consequently shifting the spatial understanding of the centralized *nation* to the more dispersed concept of the *globe.*

This supranational level of activity, for Immanuel Wallerstein, centres on the concept of a world-system, which he developed in the early 1970s as a way to contest the increasing compartmentalization of knowledge. He explains his critical approach to the transformed geography of the period as

> first of all the substitution of a unit of analysis called the "world system" for the standard unit of analysis, which was the national state. On the whole, historians had been analyzing national histories, economists national economies, political scientists national political structures, [literary critics national literatures,] and sociologists national societies. World-systems analysis raised a skeptical eyebrow, questioning whether any of these objects of study really existed, and in any case whether they were the most useful loci of analysis. (16)

The world-system is not necessarily a globe-system; world-system analysis can be and often is applied to regions such as Europe, Asia, and Africa, without discussing their connection to other regions. But importantly even these regional approaches strive to operate on a supranational level. When dealing with cultural production, for example, it is not necessary to connect all output from one region to that of another, but where connections can be made that might elucidate the relationships between social and artistic contexts, the lack of a cohesive national or linguistic background should not

impede investigations that increase the understanding of how culture moves between global spaces. As such, world system analysis proves an extremely valuable source for theorizing a method of reading concrete poetry beyond national, linguistic and disciplinary borders.

While there might have been in the past attempts to theorize the relationship between German and Brazilian concrete poetry, or British and North American, or Portuguese and Brazilian, the challenge of the movement is to account for the activity of poets who compose in languages and spaces not often studied in university departments, or at least not in conjunction. After reading the Japanese concrete poets, how can we read the Swedish, or the Danish? After reading the Mexican poets, how can we talk about the Czechoslovakian? There needs to be a critical method of approaching the work that allows for those unexpected and often counterintuitive routes, for it is those very routes the poets were imagining in their comprehension of the global. While discussions around how to integrate cultural production from a range of spaces, at a range of scales, have energized recent debates within globalization studies and cosmopolitanism generally, and comparative literature more intensively, there is yet to be accord on how to responsibly approach the rapidly expanding terrain of a global culture. An investigation of the challenges in conceptualizing an expanded space of cultural production when we are so accustomed to the nation, or other critical circuits etched by repetition in various disciplinary approaches – particularly globalization studies, cosmopolitanism, and comparative literature – will help readers navigate the stubbornly dispersed texts of concrete poetry.

The world-system Wallerstein theorizes rose out of the emergence of capitalism in the long sixteenth century, which was solidified by the 1648 Peace of Westphalia, an agreement that granted a level of sovereignty to specific nations in Europe; was developed further by the 1789 French Revolution, a bourgeois revolution that marked the beginning of radical, antisystemic movements; and reached its current stage only with the "world revolution of 1968" (Wallerstein x). Like Hobsbawm, Wallerstein places strong emphasis on the sharp rise in production and wealth that took place in the postwar years in most Western European and North American countries, but he accentuates the increasingly central role of the United States in that process. The Marshall Plan in Europe and the aggressive economic policies of containment during the Cold War had tremendous influence on global culture.

The writings of both Fredric Jameson and Arjun Appadurai have been integral in identifying how cultural production is rooted in Marshall Plan economic restructuring, as well as how global identities have emerged from

circuits of mass media. In this way, globalization theorists have provided an update to Benedict Anderson's influential 1983 text, *Imagined Communities*, that linked the development of nations to the rise of print capitalism. Appadurai argues that electronic media, which can function outside the skills of reading and writing central to Anderson's argument, are the current instigators of what will become a global, postnational imaginary (*Modernity* 22). In this he falls in step with the project of the concrete poets who placed similar emphasis on the potential for the global reach of culture to create new communities, and who would use technological advancements to reach beyond the spatial limitations of the nation or national language. Gomringer's writing, in particular, expresses a parallel desire for transformation through connectivity.

The idea of a cosmopolitan subjectivity, also nascent in Gomringer's writing, travelling the networks of media and finance in the age of globalization, is one that grew alongside globalization theory at the end of the twentieth century and the beginning of the twenty-first. Bruce Robbins and Pheng Cheah theorize cosmopolitanism as a way of imagining a global citizen, or at least the difficulties of deciding what that citizenship would entail. They make the important distinction between globalization, which approaches the material conditions that arise from the interaction of global and local forces, and cosmopolitanism, which is a reaction to certain kinds of globalization processes, and is concerned with developing a cross-national political solidarity to counter the exploitation that arises from the new, accelerated shifts in social organization. Both Robbins and Cheah refer to the loosening of the hyphen between nation and state, a nice way of understanding the cosmopolitical processes that resonate with Wallerstein's concept of the world-system, while reinforcing Anderson's thesis that citizens' feelings of belonging are produced linguistically and culturally, not by the space defined by the borders of the nation-state.

But there are also voices that rise against the quick embrace of a world-subject as one who is characterized by *opportunity*, or the kind of negative freedom brought by circuits of capital. Timothy Brennan critiques the optimistic mode of the global imaginary, one which Appadurai – in *Modernity at Large* more than his later work – shares with the at times technologically determinist concrete poets.[15] He focuses on the discourse around cosmopolitanism, and its cousin *cosmopolitics*, both of which often conceptualize a universal subjectivity and relation to global modes of production. This is the cosmopolitanism Karl Marx and Friedrich Engels put to polemical use in *The Communist Manifesto*, in their attempt to articulate a universal position for

the worker *vis a vis* the expanding realm of bourgeois production in the mid-nineteenth century (Marx and Engels 10–11). Whether used by communists or neoliberals, cosmopolitanism often falls into the trap of participating in a kind of reverse orientalism, one that imagines subjects in foreign spaces who desire an emancipation from their material conditions, whether it be via revolution or an entrance into a market economy. As David Harvey argues in an essay that calls for greater attention to be paid to the spaces out of which ideas emerge, all cosmopolitanism has within it an "embedded geopolitical allegory" ("Cosmopolitanism" 557). Brennan moves around cosmopolitanism by advocating a return to internationalism, though a renewed and fairer version of it:

> The cosmopolitan ideal envisages less a federation or coalition of states than an all-encompassing representative structure in which delegates can deliberate on a global scale. By contrast, internationalism seeks to establish global relations of respect and cooperation, based on acceptance of differences juridically, before material conditions exist for doing so equitably. *Inter*nationalism does not quarrel with the principle of *national* sovereignty, for there is no other way under modern conditions to secure respect for weaker societies or people. (77)

It would be unfair to read onto the project of the concrete poets the biases of recent globalization theory, just as it would be unfair to condemn them for a naïve embrace of the technology of computation. They functioned within a historical and geographical context – a world – that had different promises, and different potentials. What is more pressing, and more challenging, is to consider how the poetry operated during its moments: which fantasies it engaged, which ideas it sprung from. It remains clear from their critical writing that the poets, by trying to escape national language by reducing it to a visual, easily comprehendible format, conscientiously attempted to produce a global (cosmopolitan) subject though an international poetic style. The fact that the major theorists come from Brazil supports this position, as their national language keeps them and their compatriots slightly outside of their immediate South American cultural milieu, but also keeps them from identifying with one particular European or North American modernist tradition over another: the English, French, German, Soviet, Italian, and to a much lesser extent, Spanish modernisms are all similarly distant both culturally and geographically, a condition that does not apply to European or

North American poets, and which affects their understanding of the spaces of the *global*.[16]

## A New World Literature

Addressing the problem of how to deal with a world literature that, after the work done by theorists of globalization and cosmopolitanism, can no longer pretend that culture develops in nations without influence from other regions (and can no longer even pretend that was *ever* the case), a series of articles by Franco Moretti attempts to provide a new model for literary critics to confront the scale of their field. His "Conjectures on World Literature" begins with Goethe's oft-quoted passage from 1827 which proves the concept of a literature of the global is not a recent development: "Nowadays, national literature doesn't mean much: the age of world literature is beginning, and everybody should contribute to hasten its advent."[17] Trained as a comparativist, Moretti admonishes his field as failing to sufficiently engage with world literature, instead mapping what often becomes an even more entrenched Western European tradition.

> The sheer enormity of the task [of reading world literature] makes it clear that world literature cannot be literature, bigger; what we are already doing, just more of it. It has to be different. The *categories* have to be different. "It is not the 'actual' interconnection of 'things,'" Max Weber wrote, "but the *conceptual* interconnection of *problems* which define the scope of the various sciences. A new 'science' emerges where a new problem is pursued by a new method." That's the point: world literature is not an object, it's a *problem*, and a problem that asks for a new critical method: and no one has ever found a method by just reading more texts. That's not how theories come into being; they need a leap, a wager – a hypothesis, to get started. ("Conjectures" 55)

The sheer enormity he speaks of echoes the exponential increase in information that is the impulse behind much of the writings of the cyberneticians, and which Turing's Bombe had the potential to address. The concrete poets, in their permutational works as well as in their efforts to function within a simplified or reduced language – remember Gomringer's claim that poems should strive to be "as easily understood as signs in an airport[,] or traffic

signs," – were dealing with a similar anxiety – a similar *problem* with *world literature* – albeit forty years previous to Moretti's argument. Their response to the increased scale of knowledge and culture comes out in their permutational and geometrical methods. Closer to our present moment, Gayatri Spivak argues in *Death of a Discipline* that the development of Area Studies within universities created a false understanding of culture and language as contained within specific geographies.[18] She extends this critique to the tendency of a certain manifestation of Comparative Literature, "whose hallmark remains a care for language and idom," to reinforce a Eurocentric and discrete understanding of cultural production (5). Willard Bohn, who has produced masterful and virtuosic readings of visual poems in several languages within modernist and avant-garde literature, admits that in his study of visual poetry from 1914–28, "the absence of the Slavic poets, like the Dutch, was necessitated by a lack of linguistic competence. Given the complex interplay between verbal and visual elements, working with translations is inherently unsatisfactory" (7). But perhaps against the conventional emphasis on language competency we might find a way to productively engage that dissatisfaction, to use it as a side entrance into an adjusted comparativism that asks questions of texts without already knowing the answers. Again, the idea of scale becomes a barrier. How many languages can one know? How many geographies can one concentrate on without losing site of the global?

Moretti's project works both for and against Spivak's argument. He defends his methodological approach against advocates of close reading by outlining his desire for an overarching *system* of literary analysis. For Moretti, the problem with insisting on close reading, including methods promoted by New Criticism as well as deconstruction, is that "it necessarily depends on an extremely small canon" ("Conjectures" 57). What he advocates in its place is an idea of "distant reading":

> At bottom, [close reading]'s a theological exercise – very solemn treatment of very few texts taken very seriously – whereas what we really need is a little pact with the devil: we know how to read texts, now let's learn how *not* to read them. Distant reading: where distance, let me repeat it, *is a condition of knowledge*: it allows you to focus on units that are much smaller or much larger than the text: devices, themes, tropes – or genres and systems. ("Conjectures" 57)

The very mention of "distant reading" is enough to make any literary critic suspicious; it is a shocking and counterintuitive proposition. But the distance

Moretti advocates is unavoidable when approaching a contemporary under-standing of world literature, one that operates in many languages across many geographies, and one in which for too long the dominant languages or regions have held primary positions.

> Sociological formalism has always been my interpretive method, and I think that it's particularly appropriate for world literature [...]. But, unfortunately, at this point I must stop, because my competence stops. Once it became clear that the key variable of the experiment was the narrator's voice, well, a genuine formal analysis was off limits for me, because it required a linguistic competence that I couldn't even dream of (French, English, Spanish, Russian, Japanese, Chinese, and Portuguese, just for the core of the argument). ("Conjectures" 66)

Concrete poetry allows for this incompetence in its readers. Indeed, it takes it as a starting point, and revels in it. Removing the poetic subject and per-forming a global, glossed style circumvents the national critics who, although valuable, are often cloistering and girding in their methods. In the previous critical treatments of concrete poetry there has been no apparatus for read-ing it that gets away from modernist concerns (Mallarmé, Pound, the early twentieth-century avant-gardes) and national histories in order to empha-size its fluid geographies and internationalist concerns. Ideas of space within theories of globalization, Wallerstein's world-system, and Moretti's concept of distant reading all offer potential – though inevitably partial – remedies.

Moretti's subsequent essays attempt to develop an abstract model for world literature based on a statistical model of cultural and economic influ-ence, and it is here where critiques of his method point to an apparent planet-ary hierarchy. His primary genre, at the expense of all the others, is the novel, from which he designs a theory of movement and adaptation from the core to the periphery.[19] Efraín Kristal objects to this approach, and argues that by following economic development, and the model of a core and periphery development as it seeps into cultural output, Moretti perpetuates a Western bias that sees the bulk of culture from outside of the "core" as a negotiation, or compromise of Western forms and local conditions.

Kristal also challenges Moretti to account for the development of poetry:

> I am arguing [...] in favour of a view of world literature in which the novel is not necessarily the privileged genre for understanding

literary developments of social importance in the periphery; in which the West does not have a monopoly over the creation of forms that count; in which themes and forms can move in several directions – from the centre to the periphery, from the periphery to the centre, from one periphery to another while some original forms of consequence may not move much at all; and in which strategies of transfer in any direction may involve rejections, swerves, as well as transformations of various kinds, even from one genre to another. (73–4)

Moretti responds: "Yes, forms *can* move in several directions. But *do* they? This is the point, and a theory of literary history should reflect the constraints on their movements, and the reasons behind them" ("More Conjectures" 75). When it comes to concrete poetry, forms certainly move from the periphery to the core, if we remain within the thankfully now-dated terminology of Moretti and Kristal. The Brazilians were, along with the Bolivian-Swiss Gomringer, the major developers of the poetic form, and the most articulate and prolific theorists of the movement. Daniel Spoerri, a Romanian living in Germany, and Dieter Roth, a Swiss-German who moved to Iceland in 1957, were also major figures in the form's development.

Using the example of architecture, and one that is relevant to subsequent chapters, Valerie Fraser notes that the French architect and theorist Le Corbusier did not start working with curvilinear forms until after he had visited South America and seen Rio de Jineiro from an airplane. But it is not simply the forms that move from the periphery to the core; it is the periphery and the core that move, and which co-exist in poets who occupy various spaces and overlapping national identities. Even Germany in the mid-1950s would occupy a disputed position as a member of the developed core, experiencing a recent division into the GDR and the FRG, and learning to live in an occupied and reconstructing space. These poets were all members of what Stephen Bann describes as the first generation of concrete poetry (7). It is only in the second wave that figures like the Scottish Ian Hamilton Finlay, or the American Mary Ellen Solt, or the French Pierre Garnier begin to start producing work and theory. So in this example, forms do move in directions that do not necessarily follow economic development, and other factors need to be accounted for to trace their historical determinants. Moretti's idea about the development of the novel coming out of a negotiation of local narratives and spaces with a Western form is countered by the concrete poets, who, though the Brazilians and the Germans were certainly responding to

their locales (the Brazilians in their leftist politics and the Germans in their response to their East/West split), were attempting in many cases to create a literature without locale that could be adopted and understood in any region without a hierarchy of influence through the photographic/electronic/visual basis of their experimentation. Pignatari's "LIFE" is a prime example of this, as is, to a slightly lesser extent, because of its lexical markings, Hiršal and Grögerova's "Manifest." This does not negate Moretti's idea that a theory of literary history should deal with the constraints on the circulation of form, or "the reasons behind them," but it does challenge the idea that a unifying theory of world literature is necessary, or even possible when dealing with different genres or forms. There need not be a global key, but rather an awareness of contingencies, and a critical attitude that is open to the possibility of entering a field of investigation without a determined outcome set in the critic's mind.

Christopher Prendergast addresses Moretti's theories in his review of Pascale Casanova's *La République mondiale des letters*, a book that also deals with the ways in which world literature is framed. Prendergast applauds Casanova for refusing "to traffic in the term 'globalization' and its tacky Third Way *idées reçues*," which, having been written in 2001, provides evidence for how quickly academic trends rise and fall in contemporary discourse (100). Prendergast here substitutes a personal prejudice for a critical stance, though; the term *globalization* need not refer solely to the economic verve with which corporations and neo-liberal economists embrace the cost benefits of outsourcing production, which is how it is often used by the legions of protestors against such policies. *Globalization* primarily refers to an increased connectivity and common imaginaries, and in doing so does not limit itself to the age of transnationalism that developed during the latter half of the twentieth century. As a term, *globalization* carries with it the residues of all those meanings, which is part of what makes it so valuable and, at times, frustratingly vague.

Prendergast perceives the field of world literature – a term that has, post-Gutenberg, referred almost exclusively to printed literature – as contaminated and hierarchical. The national literatures that quickly adopted writing became dominant:

> The European Enlightenment established a link between "reason,"
> "civilization," and writing, thus confining oral culture to a position
> of inferiority, often attaching the pejorative valuation "barbaric" or
> "savage." The argument that a culture attains to civilization only

when it is capable of "inscribing" itself not only devalues the oral tradition in the name of a specious fable of "development," but also overlooks the very real ambiguity of the acquisition of writing; at once an immense cultural gain, but also helping to institute structures of power and domination, within which those who have the skills of writing and reading enjoy advantages over those who do not. (102)

Relating this to concrete poetry raises the question as to whether the poets were attempting to move away from these structures of dominance by embracing the photographic, or by critically mimicking the aesthetic of media in an increasingly visual and electronic mediascape. In order to create a more evenly distributed system of reference, were the concrete poets attempting to combine geographies instead of separating them? Max Bense seems to think so: "Concrete poetry does not separate languages; it unites them; it combines them" ("Concrete Poetry" 73). Was the incompetence of the reader a poetic strategy? Incompetence should not here be considered pejorative, in the same way that illiteracy would in the system Prendergast identifies above, but as a necessary condition in an expanding, poly-linguistic global environment. Such incompetence might have been a material condition for a form that would aim to make poetry as globally accessible as the traffic signals and signs in airports that Gomringer points to in 1960. This poetic strategy is perhaps most strikingly present in the sound experiments of Henri Chopin and Paul de Vree, who used the expressive potential of the human voice to move outside of visual signage, but who also used electronic means, such as the tape recorder and tape-splicing techniques, to distinguish their experimentation from previous sound poets like Hugo Ball and Kurt Schwitters.

But the strategy is there in visual concrete poetry, as well. Augusto de Campos's "Olho Por Olho," (1964) which he refers to as "popcrete," is simply symbols cut out from magazines, mostly eyes and mouths, and arranged tri-angularly (98; see fig. 2.12). The fragmentation of the body parts, especially the sexualized eyes and mouths of magazine models, at the top of which are traffic signs whose explicit function is to direct the movements of traffic – no left turn, right turn only, etc. – triggers questions of behaviour, desire, and representation in media culture. Pignatari's "Semiotic Poem," from the same year, is similarly not made of words at all, but of shapes, a lexical key for which is provided on the lower left side of the page (85; see fig. 2.13). The poem deals with the fascination of Brazil with the football star Pelé, a

Figure 2.12
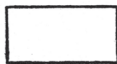
**Augusto de Campos. "Olho por Olho"**

chave léxica
lexical key

pelé

a pátria é a família
(com televisão) amplificada
the country is the amplified
family (with television set)
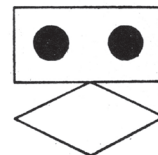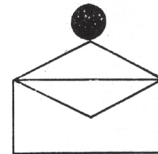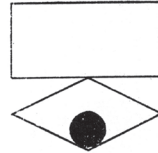
no fim dá certo
at the end all ends well

Figure 2.13
**Décio Pignatari. "Semiotic Poem"**

fascination made all the more intense by his constant television presence and the fact that Brazil had won the FIFA (Fédération Internationale de Football Association) World Cup in 1958 as well as 1962. Brazil had through these victories become in some global networks almost synonymous with football, and for the first time football was an event mediated in large part by television, instead of radio, photography, and written news accounts. In this way the poem relates to the tension of Brazil's cultural and political moment – a military junta assumed power the same year the poems were published – in a complex manner, perhaps surprisingly to readers who would dismiss it for being overly simplified. The lexical key becomes part of the poem's composition. Translation is not here the subordinated capitulation to the conditions of an inter-linguistic audience, but an integral part of the work. The fact that the key – itself a kind of inter-sign translation – is translated into English from the original Portuguese troubles the prejudice against translation as being necessarily a degradation of the original, situated work. The form is accessible to any reader provided with only the most basic definition for the three symbols Pignatari makes use of.

Pelé, represented by a black circle in the poem, exists in a spatial relation to the nation of Brazil, "the amplified family (with television set)," and in affective relationship to the idea that "at the end all ends well." At the top of the poem, Pelé exists in multiple, outside of the amplified family, but within the feeling that things end well. The subsequent arrangements can be understood in various ways, with some of the lexical shapes intersecting or fragmenting in meaningful arrangements. The challenge for the reader or decoder is to keep the concepts associated with the shapes in mind while apprehending the arrangements. It is quite simple in the case of Pelé; the black circle stands in for a single person, easily comprehensible. But the more complex definitions associated with the rectangle and the rhombus are more difficult to manage in one's mind, and much more difficult to imagine in their various modulations. How exactly does a feeling split in half? Or rotate forty-five degrees?

The issue of translation is also central to concrete poems which function within language, not just to those that use only symbols, alphabetic or otherwise. Eugen Gomringer's work engages with the issue of cross-linguistic understanding, and occupies a critical ground for the imagination of a new space, beyond the language-based nation theorized by Benedict Anderson. Having spent the first eleven years of his life in Bolivia before moving to Switzerland, he wrote his first constellations in Spanish before attempting compositions in German and English. His early correspondence with Décio

Pignatari was in French. Gomringer's poem "Wind," on first viewing, seems to be a rather banal, mimetic poem about wind, as the letters *w*, *i*, *n*, and *d*, are scattered about the page as if wind had dispersed the language material (37; see fig. 2.14). But readers only fully grasp the poem's meaning when they realize that "wind" refers to the same phenomenon in English as well as German, meaning that there is not only a difficulty in reading the letters, as they are not arranged on conventional lines, but even the sounds of the words and letters are indeterminate. The English "wind" becomes the German *vind*; the English *w* (dʌb(ə)ljuː), *i* (aɪ), *n* (ɛn), and *d* (diː), become the German *w* (vɛ), *i* (ɪ), *n* (ɛn), and *d* (de). The poem is then not about a relationship between signifier and signified, but about one between linguistic communities and about a common visual experience of language. The collapse of the signifier into the signified opens up spaces to communities that might have been excluded by levels or certain modes of literacy. The embrace of a new global literacy, though one that was and still is perhaps problematically created by the sphere of commerce, was a strategy of cultural expansion for the concrete poets. In the case of Gomringer's poem, the letters' potential to *mean* in various arrangements is as much the force of the poem as the specific word choice, and although the primary relationship in the poem is between English and German languages, it is also meaningful to speakers of languages that use the Roman alphabet, in their ability to vocalize the text, and to those speakers of languages that use other alphabets, in their apprehension of the letters as shapes arranged in an odd pattern on the page.

Gomringer was enthusiastic about concrete poetry's ability to travel. He pointed to the poetry's intentional polyglotism as a way to "bring some living languages into contact with each other as at a party, for instance, or on a flight [where] people from different backgrounds, abilities, and languages as well as outward appearances can be observed" ("Concrete" 68). The Brazilians, especially, operated within various linguistic communities, and were skilled translators, especially of American modernism. Elizabeth Walther-Bense recalls of Haroldo de Campos: "Besides Latin and Greek, he learned German, French, English, Italian, Spanish, Russian, Japanese, and Hebrew. Maybe some other languages, too. His goal was never to master foreign languages completely, but to be able to read literary texts and to translate them" (358). And for Eugene Wildman, the editor of the Chicago Review's *Anthology of Concretism*, the activity of concrete poetry across language plays a central role in his understanding of the significance of the movement. Writing in 1969, two years after his anthology was published, he identifies a folk aspect in concrete poetry, as it is written in a language meant to provide

access to those with a basic understanding of language, whether they are foreign or native speakers. Wildman uses the example of a calendar image in the Chicago Review's office, unchanged since July 1967, whose caption, "A new bridge over the Biferno (Molise)," is printed in five different languages: Italian, French, English, German, and then Spanish, with the last two words identical in each. Wildman asks: "But is this not a concrete poem?" (164–5). He considers it a found poem that acknowledges the indeterminacy of the commodity in an environment of global trade while recognizing the value of disparate spaces of consumption; the calendar could be bought by an Italian, French, Spanish, German, or English consumer, each of whom would be confronted by an artefact that would remind them that there are other language communities in the world which demand recognition. This emphasis on reminding, on foregrounding the structures that impede communication and the strategies for circumventing – or circumscribing – those impediments, appears throughout the program of the concrete poetry movement.

Wildman's emphasis on the importance of translation comes out in his inclusion of an English translation of Hiršal and Grögerová's poem "The Old / New (*from the book of JOB:BOJ*)," which is a prose passage that has certain verbs, nouns, and adjectives paired with their opposites, so that the beginning of the text reads "The aesthetic of the old / new work of art is primarily determined by the subject/material […]" (34). As readers continue, they are confronted with potential readings that double with every choice between two words, adding up to four million one hundred and ninety-four thousand three hundred and four possible readings.[20] Is this the aesthetics of entropy, "the tendency of physical systems to become less and less organized, to become more and more perfectly shuffled" (Shannon and Weaver 12)? The immensity of the work is only compounded when the reader is confronted with Hiršal and Grögerová's poem again ninety pages later, but in a different English translation. While there is indeterminacy and proliferation of relationships in all poetry – and certainly in the conventional poetic techniques of rhyme, alliteration, enjambment, disjunction, allusion, and so on – the foregrounding of disorder, and especially the mathematically formulated disorder in Hiršal and Grögerová's poem, is of a particular character that relates to the contemporaneous conditions of language on an international, often mechanized scale. A poem is never an ordered space, nor is language, as post-structuralism taught us. There will always be slippage and traces. But what is significant in Hiršal and Grögerová's work is the purposeful engineering of ambiguity, the literary switches that form a logical, mathematical character within the poem. What is being expressed is not a feeling of the

poet but an idea of stability/instability in language. It is there in all poetry, but here it is insisted upon, made concrete and present, and offered as a site of pleasure for the reader.

Two poems also included in Hiršal and Grögerova's collection *JOB:BOJ*, gathered under the title "Vývoj I" (Developer; 1960–62), perform a synthesis of the mathematical/mechanical, the global, and the visual turn. The title is a reference to the photographic chemical product used to make visible the light captured by photographic paper during the development process, a product which needs to be in contact with the paper for a very specific period of time or risk over- or underexposure of the image. The poem uses a permutational method reliant on word-length in which a word is gradually morphed into a word from a different language while creating diagonal patterns of repeated letters. The five letters in the German word for *love*, "LIEBE," turn gradually, through nineteen letter combinations, into the Czech word for *love*, "LÁSKA," in one example, while the seven letter Czech word for freedom, "SVOBODA," travels through thirty-four combinations of gibberish before settling into the English "FREEDOM," engaging both the mathematical structure of information technology developed by the rudimentary computer technology as well as the social significance of cross-linguistic communities (146; see fig. 2.15). Post-World War II Czechoslovakia was attempting to shift identities from one occupied consciousness, the German, to another, the Soviet, making the inclusion of the English word "freedom" an especially loaded political statement at the height of cold war relations. Does "freedom" translate? How does it translate at the end of a gun? What does this particular linguistic morphology represent at the beginning of the 1960s in Eastern Europe? It should here be noted that although Liselotte Gumpel's *Concrete Poetry in East and West Germany* does identify concrete visual poets operating in East Germany, particularly Carlfriedrich Claus, for the most part concrete visual poetry is identified with the West, and deals with a specific media and capitalist infrastructure (advertising, consumerism, advanced communication technologies) popularly identified with the United States and its allies in the cold war.[21]

In the catalogue accompanying the exhibition *Between Poetry and Painting*, which she curated in at the Institute for Contemporary Art in London in 1965, Jasia Reichardt describes concrete poetry as the "first international poetry movement," emphasizing the fact that beyond imagism or Dada or Surrealist poetry, concrete poetry was the first to engage with disparate linguistic communities and internationalism as a defining problematic (9). In order to understand the reasons behind the movement's development,

Figure 2.14
**Eugen Gomringer. "Wind"**

```
                              S V O B O D A
                              V O B O D A S
                              O B O D A S V
                              B O D A S V O
                              O D A S V O B
                              D A S V O B O
                              A S V O B O D
                              F V O B O D A
                              V O B O D A F
                              O B O D A F V
                              B O D A F V O
                              O D A F V O B
                              D A F V O B O
L I E B E                     A F V O B O D
I E B E L                     F R O B O D A
E B E L I                     R O B O D A F
B E L I E                     O B O D A F R
E L I E B                     B O D A F R O
L Á E B E                     O D A F R O B
Á E B E L                     D A F R O B O
E B E L Á                     A F R O B O D
B E L Á E                     F R E B O D A
E L Á E B                     R E B O D A F
L Á S B E                     E B O D A F R
Á S B E L                     B O D A F R E
S B E L Á                     O D A F R E B
B E L Á S                     D A F R E B O
E L Á S B                     A F R E B O D
L Á S K B                     F R E E O D A
Á S K B L                     R E E O D A F
S K B L Á                     E E O D A F R
K B L Á S                     E O D A F R E
B L Á S K                     O D A F R E E
L Á S K A                     D A F R E E O
                              A F R E E D O
                              F R E E D O M
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Figure 2.15

**Josef Hiršal and Bohumila Grögerová. "Developer (Vývoj I)"**

it is necessary to consider what exactly was the condition of nations or the experience of language, visual or otherwise, at the time of writing. The global imaginary is an old idea, but one that underwent dramatic change as a result of the conditions brought about by the technologies of World War II. Both the H-Bomb and the computer technology rooted in Turing's Bombe radically shifted our understanding of nationhood and communication. The link between language and mathematics is also not a new phenomenon, as any basic history of ciphers demonstrates; the same is true of the combination of the visual and the linguistic, as any examination of early writing, or of early twentieth-century avant-gardes, shows. But there were shifts around the mid-twentieth century that were forceful enough to prompt a new strategy of poetic composition, one that took the recognition of an altered mediascape as a challenge to create work that could speak to a new global reader whose consciousness was becoming unbound by linguistic borders.