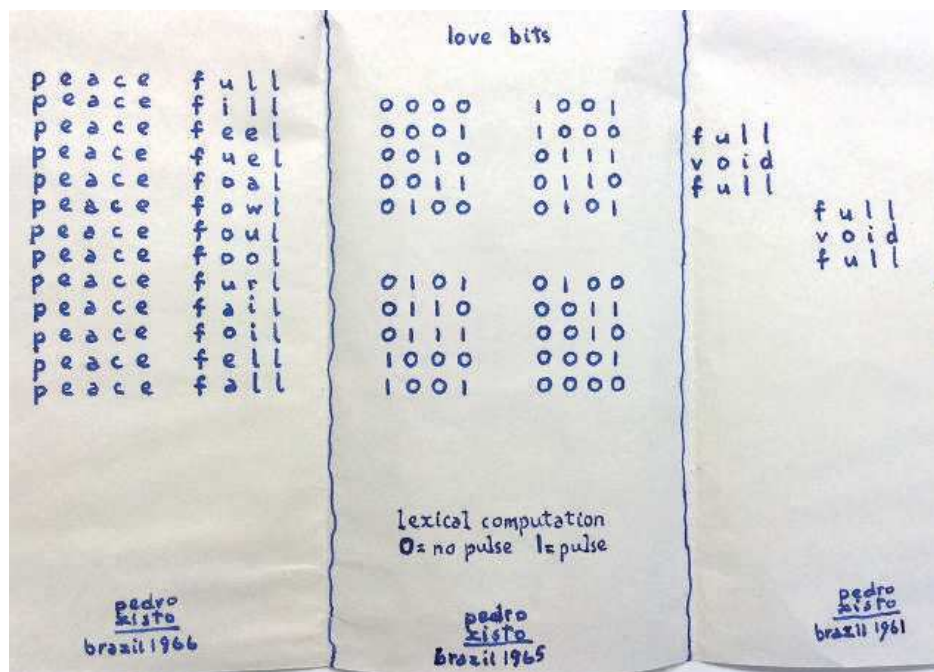


# The Emergence of Interdisciplinary Tendencies in Experimental Poetics, 1950s & 1960s

Bronac Ferran

*This article addresses shifts in the form and language of poetry after the Second World War, when direct and indirect references to science and technology became manifest. Poets in Brazil were particularly early adopters. Wladimir Dias-Pino's A Ave (The Bird) using "the characteristic potentiality of mathematics" was published in 1956.<sup>1</sup> The same year, through the cultural activism of poets in Brazil, an international concrete poetry movement was founded. From São Paulo, Augusto, Haroldo de Campos and Décio Pignatari contacted poets in Europe who were connected to "concrete art" and ideas of a "rational aesthetics" emerging at the Design School in Ulm in the Federal Republic of Germany led by Max Bill and Max Bense.<sup>2</sup> In 1955, when visiting Ulm, Pignatari met Eugen Gomringer, a Bolivian-born Swiss-based poet, who was experimenting with new poetic forms rejecting subjective expression and using densely compressed language. Gomringer worked as secretary to Bill, who, from the mid-1930s onwards developed forms of visual practice that he called concrete art. His geometrically abstract works were inspired by a deep interest in mathematics and expressed in graphic design, painting and sculpture, all showing a rigorous purity of form. When shown at the first São Paulo Biennial in 1951, his works made a strong impression on many artists and poets in Brazil who developed concrete-related works, though informed by their own perspective in a very different context.*



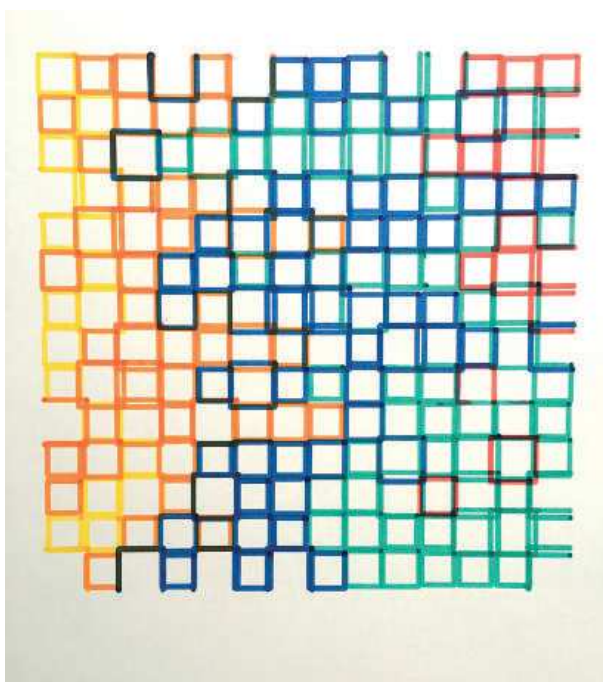
Manuscript poems by Pedro Xisto, enclosed in letter to Stephen Bann, 1967.  
Reproduced with kind permission of the Xisto Family and Stephen Bann

Concrete poetry soon spread internationally, fuelled by manifestos arguing for poetry to “create precise problems and solve them...”<sup>3</sup> recalling problem-solving aspects of scientific method. In 1958, Gomringer referred to the work of concrete poetry as having “a correspondence with the efforts of modern linguistic science”<sup>4</sup> and in 1956, he directly applied the idea of the rational to concrete poetry:

If the poet’s attitudes are positive and synthetically rationalistic, his poetry will be so [...] Concrete poetry is founded upon the contemporary scientific-technical view of the world and will come into its own in the synthetic-rationalistic world of tomorrow...<sup>5</sup>

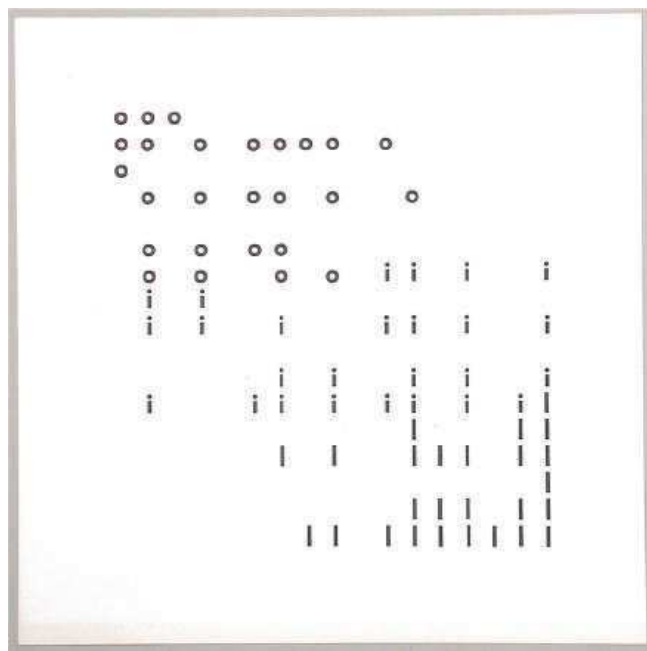
In 1958, the São Paulo concretists published *A Pilot Plan for Concrete Poetry*<sup>6</sup> that was both poetic and scientific in its formulation:

Concrete poetry: tension of word-things in space time. Dynamic structure: multiplicity of concomitant movements. [...] Renouncing the struggle for the “absolute”, concrete poetry remains in the magnetic field of perennial relativity. Chronomicrometric measuring of chance. Control. Cybernetics. The poem as a self-regulatory mechanism; feedback. Faster communication...

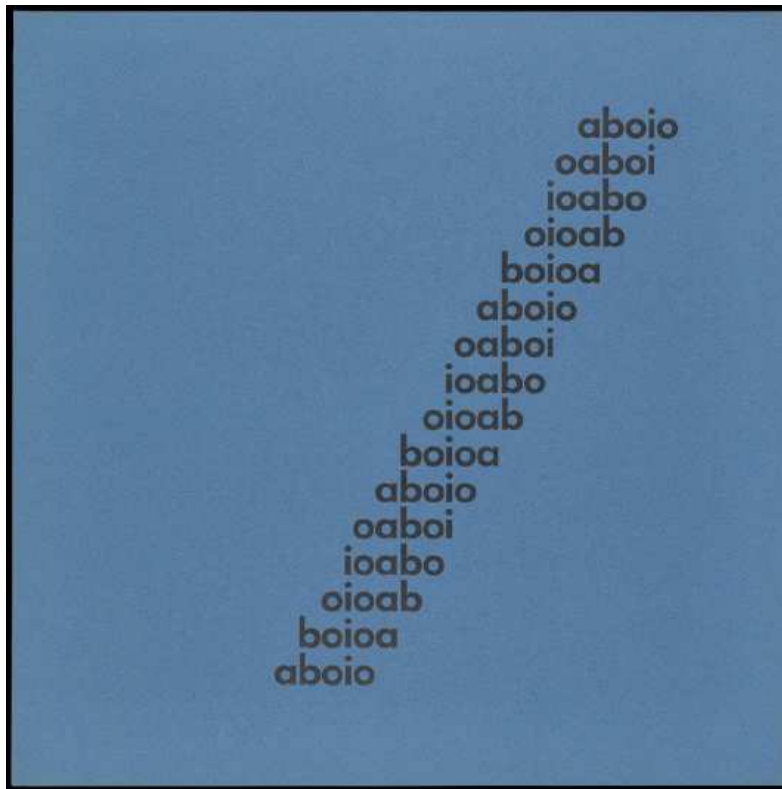


From *matrizen multiplikation*, Frieder Nake, Letterpress, computer plotter, program, Edition Hansjörg Mayer, 1967.

Visiting Europe in 1959, Haroldo de Campos met with Bense and discovered a strong shared interest in pursuing correlations between new poetic forms and theories of communication, drawing on information theories of Claude Shannon and Norbert Wiener as well as the semiotic theories of C.S. Peirce.<sup>7</sup> All of these fed into the theory of “Information Aesthetics” for which Bense is now best known.<sup>8</sup> He set up the Visual Communication course in Ulm and General Studies at the *Technische Hochschule* in Stuttgart, where he fostered groundbreaking experiments with literature and computation.<sup>9</sup> Seeing words as “elemental creative matter”,<sup>10</sup> he stimulated pioneering experiments, such as *Stochastic Text*, devised by Theo Lutz on a ZUSE Z22 mainframe computer. Bense suggested to Lutz that he might try a random number generator on an existing text. Lutz chose Kafka’s *The Castle* to test the programmability and aleatory capacity of machines, as he documented<sup>11</sup> in *Augenblick*, a journal edited by Bense (1954-1961). This, as well as *edition rot*, first published in 1960 and co-edited with Elizabeth Walther-Bense, were unique platforms for circulation and cross-fertilization of theories and practice linking poetry, philosophy, semiotics, mathematics and information aesthetics.



*oil*, Hansjörg Mayer, letterpress, 1965.



*aboio*. Pedro Xisto, print from 13 visuelle texte,  
Edition Hansjörg Mayer, 1964.

Frieder Nake, then a Mathematics student at the *Technische Hochschule*, has described how the word “program” was being shaped and tested in Stuttgart.<sup>12</sup> In 1966-1967, he was invited by the poet and typographer Hansjörg Mayer, who was also studying with Bense, to develop two titles for a series of concrete poetry/experimental literature publications. Mayer was already using aleatory processes in his poetry and perceptively saw connections between the complexity of concrete poetry, typography and the emerging language of computation. His *edition hansjörg mayer*<sup>13</sup> became a critical meeting point for these trajectories. With Nake, he published *computer grafik* (1966)<sup>14</sup> and *matrizen multiplikation* (1967)<sup>15</sup>, a print portfolio combining letterpress typography by Mayer, 12 random variable computer plotter drawings and Nake’s original computer program.

Mayer also published *Program Typographie 2* (1967)<sup>16</sup> with Reinhard Döhl and G.C. Kirchberger, and *programmed squares II* (1968)<sup>17</sup> with Peter Schmidt. The introduction to *pro-*

*grammed squares II* shows Mayer’s distinctive approach to layout using additional spaces instead of punctuation and always using lowercase lettering:

... the print was realized in 1967 using an arithmetical programme which approximates to the idea and hand set in 10 pt letterpress border material the shuffling of the units within the subsections used was done manually and is imperfect

Scottish poet, Edwin Morgan who also made a work for Mayer’s *futura*, was “convinced of a relationship between some aspects of European concrete poetry and the development of computer technology”:<sup>18</sup> He observed that: “The element of combination or re-combination of elements is quite strong in concrete poetry and it began to be written at the very time when computers began to be used.”<sup>19</sup>

For Mayer, it “was all poetry.”<sup>20</sup> The Futura typeface, invented in the 1920s, was used by him to connect everything together, as he explained: “Zero and one is everything – the

whole universe – and equally the circle and line, which is the Futura typeface, can express everything.”<sup>21</sup>

The interplay between code and poetry also emerged in the early 1960s in São Paulo. Pedro Xisto’s *love bits* is based only on zeros and ones and a good example of the interpolations that poets were generating. Mayer also published a poem by Xisto, made from lines and circles, in his *13 visuelle texte* portfolio (1964).<sup>22</sup>

In 1964, Pignatari wrote of his “researches on language through Semiotic and Communication and Information Theory (also some statistical analysis on computers).”<sup>23</sup> Along with Luis Angelo Pinto, an engineering student, poet and “mathematics expert”, he created “semiotic poems” offering visual keys for readers to decipher.<sup>24</sup> Pignatari told his students that the “the alphabet is a computer in itself.”<sup>25</sup>

Poets working in experimental forms outside concrete poetry also began using signs as well as words. In *MINUTES TO GO* (1960), Brion Gysin’s permutation poem, *I THINK THEREFORE I AM*, substituted letters with dollar and percentage signs as well as asterisks and the number one.<sup>26</sup> A text “cut up” by William Burroughs in the same book included the lines:

“Sooner or later this will lead to an understanding of The language of The Virus which is the language of life [...] the entire message of life is written in four letter words with our genes.” Dr Stanley explained – adenine guanine thymine or cytosine – which are built into Three whether it be one, two, three, four or one, two, four, three, for example links or letters are arranged to spell out man ... As to the distant future say 100 years Dr Stanley sees the entire code being cracked. “We will be able to write out the message that is you”, he said.<sup>27</sup>

Advances in space exploration also stimulated poets of the period. Pierre Garnier, editor of *Les Lettres, Poésie Nouvelle*, saw ongoing experimentation in poetic language as the equivalent of explorations in outer space. He wrote

of poems as vibrations, describing those he made with Ilse, his wife and partner in poetry, “like waves, shooting about in the universe.”<sup>28</sup> He proposed using “spatialist poetry” instead of concrete poetry, seeing all these terms as “objectivations of the language-universe.”<sup>29</sup> He sought “a new art which by disturbing the foundations of language modifies man [...] returning, without the obstacle of a language settled and compulsory, to the roots, the energies, and working for it with the help of the most modern techniques, like the cosmonaut in space.”<sup>30</sup>

<sup>1</sup> Interviews with W. Dias-Pino by R. Camara, in R. CAMARA, P. MARTINS (eds.), *poesia/poema, Wladimir Dias-Pino*, trans. A. T. de Castro Lima, Brasília, Estereográfica, 2015, 183.

<sup>2</sup> W. ROTZLER, “The Serial Principle, Constructive Art in Germany since 1945”, in *Constructive Concepts, A History of Constructive Art from Cubism to the Present*, New York, Rizzoli, 191-201.

<sup>3</sup> A. DE CAMPOS, H. DE CAMPOS, D. PIGNATARI, “A Pilot Plan for Concrete Poetry”, *Noigandres* 4, 1958.

<sup>4</sup> E. GOMRINGER, “Max Bill and Concrete Poetry”, 1958, repr. in M. E. SOLT (ed.), *Concrete Poetry. A World View*, trans. I. Montjoye Sinor & M. E. Solt, Bloomington-London, Indiana University Press, 1970, 68-69.

<sup>5</sup> E. GOMRINGER, “konkrete dichtung”, 1956, repr. in *ibid*, trans. I. Montjoye Sinor & M. E. Solt, 67-68.

<sup>6</sup> A. DE CAMPOS, H. DE CAMPOS, D. PIGNATARI, “A Pilot Plan for Concrete Poetry”, *op. cit.*

<sup>7</sup> Claude Shannon’s foundational work for information theory, *A Mathematical Theory of Communication*, was published in 1948, the same year as Norbert Wiener’s *Cybernetics: Or Control and Communication in the Animal and Machine*. Charles Stuart Peirce (1839-1914) was the founder of semiotics, or the science of signs.

<sup>8</sup> C. KLÜTSCH, “Information Aesthetics and the Stuttgart School”, in H. B. HIGGINS, D. KAHN (eds.), *Mainframe Experimentalism — Early Computing and the Foundation of the Digital Arts*, Berkeley-Los Angeles-London, University of California Press, 2012, 65-89.

<sup>9</sup> *Ibidem*.

<sup>10</sup> M. BENSE, “projekte generativer ästhetik”, in M. BENSE, E. WALTHER-BENSE (eds.), *rot 19. computer-grafik*, Stuttgart, Dr E. Walther, 1964, 11.

<sup>11</sup> T. LUTZ, “Stochastic Text”, *Augenblick* 4, 1959.

<sup>12</sup> F. NAKE in conversation with the author, 2015.

<sup>13</sup> B. FERRAN, H. MAYER, *The Smell of Ink and Soil: The Story of Edition Hansjörg Mayer*, Cologne, Buchhandlung Walther König, 2017.

<sup>14</sup> F. NAKE, H. MAYER, “computer grafik”, *futura* 13, 1966.

<sup>15</sup> F. NAKE, H. MAYER, *matrizen multiplikation*, Stuttgart, Edition Hansjörg Mayer, 1967.

<sup>16</sup> R. DÖHL, H. MAYER, G. C. KIRCHBERGER, *Progam Typographie 2*, Stuttgart, Edition Hansjörg Mayer, 1967.

<sup>17</sup> P. SCHMIDT, H. MAYER, “Programmed Squares II”, *fu-*

tura 24, 1967.

<sup>18</sup> C. NICHOLSON, *Edwin Morgan: Inventions of Modernity*, Manchester-New York, Manchester University Press, 2002, 92.

<sup>19</sup> Ibid. ; M. FAZZINI, "Edwin Morgan: Two Interviews", *Studies in Scottish Literature*, 1994, 29.

<sup>20</sup> Mayer & Nake in interview with the author, 2017.

<sup>21</sup> Mayer in interview with the author, 2016.

<sup>22</sup> P. XISTO, H. MAYER, "aboio", *13 visuelle texte*, 1964.

<sup>23</sup> D. PIGNATARI, "The Concrete Poets of Brazil", in J. WILLETT (ed.), *Any Advance? The Changing Guard – 2*, Times Literary Supplement, 4 September 1964, repr. in J. BERNER (ed.), *Astronauts of Inner Space*, San Francisco, Stolen Paper Editions, 1966, 8.

<sup>24</sup> L. A. PINTO, D. PIGNATARI, "Nova linguagem, nova poesia", in A. DE CAMPOS, H. DE CAMPOS, D. PIGNA-

TARI, *Teoria da poesia concreta: textos críticos e manifestos 1950-1960*, São Paulo, Cotia Ateliê Editorial 2006, 219-224.

<sup>25</sup> Emailed correspondence with former student of Pignarati, August 2016.

<sup>26</sup> B. GYSIN, "I THINK THEREFORE I AM", in S. BEILES, W. BURROUGHS, G. CORSO et al., *MINUTES TO GO*, Paris, Two Cities Editions (Jean Fanchette), 1960, 47-48.

<sup>27</sup> Ibidem, 60-61.

<sup>28</sup> P. GARNIER, "Manifesto for a New Visual and Sound Poetry", *Les lettres*, 29, janvier 1963.

<sup>29</sup> P. GARNIER, "Position 1 du mouvement international", *Les lettres. Poésie nouvelle. Revue du Spatialisme* 32, avril 1964, 8-38.

<sup>30</sup> Ibidem.

## Art & hacktivisme — une introduction

Jacques Urbanska

*En 1996, Omega, un membre de Cult of the Dead Cow<sup>1</sup>, groupe américain de célèbres hackers et média de masse « Do it yourself<sup>2</sup> », proposa le mot valise hacktivisme pour décrire le bidouillage informatique à des fins politiques. Presque immédiatement, le néologisme, issu des termes anglais « hacking » et « activism », s'est répandu comme une traînée de poudre<sup>3</sup>. Si, par anglicisme, le sens du mot activisme sert généralement à désigner le militantisme (pris au sens large), les termes hacking, hacker, ou hack sont, quant à eux, moins évidents à cerner.*



Dries Deoporter, *Seattle Crime Cams* (2015)  
credits-Christina-Bakuchava.