

MONIKA GÓRSKA-OLESIŃSKA

 <https://orcid.org/0000-0001-5742-1736>

University of Lodz

monika.gorska-olesinska@gmail.com

MARIUSZ PISARSKI

 <https://orcid.org/0000-0001-7038-0166>

University of Information Technology and Management in Rzeszów

mpisarski@wsiz.edu.pl

GUESSING FROM TEXTONES DISTRIBUTED TRANSLATION AS EXEMPLIFIED BY *SEA AND SPAR BETWEEN* (2010) BY STEPHANIE STRICKLAND AND NICK MONTFORT

Abstract

This article discusses the challenges of translating poetry generators in multi-authorial, creative collaborations and within the context of understanding text as a process. Stephanie Strickland's and Nick Montfort's *Sea and Spar Between* is in many respects a translational challenge that in some languages might be considered an impossible task. Polish, our target language, imposes some serious constraints: one-syllable words become disyllabic or multisyllabic, kennings have different morphological, lexical, and grammatical arrangements, and most of the generative rhetoric of the original (like anaphors) must take into consideration the grammatical gender of Polish words. As a result, the JavaScript code, instructions that accompany the JavaScript file, and arrays of words that this poetry generator draws from, needed to be expanded and rewritten. Moreover, in several crucial points of this rule-driven work, natural language forced us to modify the code.

In translating *Sea and Spar Between*, the process of negotiation between the source language and the target language involves more factors than in the case of traditional translation. Strickland and Montfort read Dickinson and Melville and parse their readings

into a computer program (in itself a translation, or port, from Python to JavaScript), which combines them in almost countless ways. Such a collision of cultures, languages, and tools becomes amplified when transposed into a different language. This transposition involves the original authors of *Sea and Spar Between*, the four original translators of Dickinson and Melville into Polish, and ourselves, turning into a multilayered translational challenge, something we propose to call a distributed translation. While testing the language and the potential of poetry translation in the digital age, the experiment – we hope – has produced some fascinating and thought-provoking poetry.

Keywords: electronic literature translation, poetry generator, *Sea and Spar Between*, open-source, adaptation, generative literature

Introduction

Although this article concerns the translation of a particular experimental work, a poetry generator, and a particular kind of translation – which we call a distributed translation – its arguments are at the same time situated within the general cultural processes affecting every reader, author and translator. One of these processes involves a change in the ontic status of text in the digital world. Even when defined in broad, semiotic-narratological terms, it is no longer understood as a finite, structured whole (Bal, Van Boheemen 2009: 5); neither can it be considered merely a composite of matter, concept and action (Shillingsburg 1991: 58–60). In an age where digital technologies permeate everyday life, Katherine Hayles suggests perceiving text as a process. This process includes data files, the programs that call these files, and the hardware on which the programs run (Hayles 2003: 267). At the same time, as noted by Hayles, text as a process also includes optical cables, network algorithms and any other elements (devices) that allow text to exist in the space between one networked computer and another. When analyzing a single text on a computer screen, awareness of its networked, distributed ontology becomes essential. The files responsible for the typographical layout may be located on a server thousands of kilometers away from the image files, the fonts may be placed in yet another location and the work itself may depend on the presence of a particular software on the computer screen. In our case, the distributed nature of translation is determined by the fundamental distinction between code and text, inherent in the structure of a distributed text and at the same time constituting its artistic manifesto. In other words, the distributed nature of *Sea and Spar Between* is expressed both by what the reader is able to see on the screen, and which is enabled

by JavaScript files and HTML5 Canvas elements, and by the generated text of a single poetic verse, composed from words belonging to diverse word pools. The shared authorship of a single stanza (Dickinson, Melville), the shared artistic idea behind the work (Montfort, Strickland), the shared translation of the text (Górska-Olesińska, Pisarski), and the shared creation of the code in the original and in translation (Montfort, Argasiński), together demonstrate the distributed nature of electronic literature translation.¹ At the same time, the translation of this type of work, inevitably collaborative and multifaceted, confirms the general transformations affecting the categories of authorship, integrity and finitude of text and the very scope of the translator's work, which is constantly in flux.

Characteristics of the generator

Sea and Spar Between (2010) is a poetic generator that produces 225 quintillion (!) stanzas, a number that, as emphasized by its authors, corresponds roughly to the number of fish in the sea. Stanzas are generated by the programme as a result of an algorithmic compilation of the language of Emily Dickinson's (1830–1886) poetry and the vocabulary of *Moby Dick* (1851) by Herman Melville. When opening a web page with the work, a randomly selected section of the “blue sea of text” appears on the screen. Depending on the size of the screen, it comprises between ten and fifty four-line stanzas. The stanzas are laid out in a regular matrix, their position being defined by two co-ordinates ranging from 0:0 to 14992383:14992383, which perform functions analogous to those of longitude and latitude in the geographical coordinate system. When refreshing the page, the coordinates change automatically, taking the reader to new regions of the virtual canvas² on which the text of the poem is “drawn out.” By no means is the process of reading the generated text an easy one. One delicate move of your computer mouse is enough to make the displayed stanzas vibrate and fluctuate, “shimmering” with dozens of alternative versions. This is because the movement of the

¹ See Górska-Olesińska, Pisarski 2018.

² “Further, the momentarily visible text (the layout of several stanzas on the screen – a note by M.G.-O., M.P.) represents only a vanishingly small fraction of the entire poem-matrix. This larger structure really does not exist at all, except as a logical possibility. The full matrix is nowhere stored in browser memory, even inaccessibly. Searching is therefore impossible because there is no complete, static document to search” (Moulthrop 2013: 7).

mouse is coupled, with mathematical precision, with a unit of measurement corresponding to the size of the screen in such a way that even a slight change in the position of the pointing device results in the displayed stanza being replaced by the “next screen” on the virtual coordinate grid. There is also a more precise way of navigating the “sea of text” by entering coordinate pairs in the navigation box at the bottom of the screen; however, this is only possible if, as noted by Stuart Moulthrop, the reader manages to force the “notoriously twitchy” generator interface to cooperate (Moulthrop 2017: 5; cf. Montfort, Strickland 2014: 228).

Even though the generator’s source code includes the authors’ comments, it nevertheless does not exceed 1,000 lines. However, the number of stanzas that could be generated by the code is unimaginable. Moulthrop, who considers *Sea and Spar Between* to be one of the most important pieces of electronic literature, juxtaposes it with Raymond Queneau’s poetic machine, *A Hundred Thousand Billion Poems* (Moulthrop 2017: 35–38; Moulthrop, Schumaker 2016: 131–139), at the same time emphasizing that the experiential effect of the work by Strickland and Montfort is founded on a paradox: although in conceptual terms and at the level of the code all the stanzas are caught in a precise Cartesian coordinate grid (like Melville’s *fast-fish* caught in a net), in practice the overwhelming majority of them, like *loose fish*, will never be known to the individual reader, who would need more than 213 million years to read all the stanzas:

In fact, *Sea and Spar Between* seems designed as much for reading as for a reciprocal process of unreading (to borrow for our own purposes Tanya’s term – cite). [although the term is used by Tanya Clement in a slightly different context – note by M.G.-O, M.P.] Trying to focus on a single stanza can be devilishly difficult; and such focus, once achieved, has only ironic value. For every stanza or collection of stanzas we can see, we must acknowledge hundreds of trillions beyond the current scope. As a matter of design, the project is deliberately over-scaled, a kind of cascading or exploding fractal that replicates in ways that threaten to shatter any personal or indeed human frame of reference (Moulthrop 2013: 6).

The electronic text of *Sea and Spar Between*, due to its sheer volume, “cannot be read using any of the methods known and used in the 19th and 20th centuries” (Moulthrop 2013: 7). This is why, when working on the translation, being unable to capture the *scriptons* of this impressive digital work in their entirety, we solved the problem by navigating the internal, textonic layer

In a search for their Polish equivalents, we consulted Bogusław Zieliński's canonical translation of *Moby Dick* into Polish. Despite the criticisms levelled against this translation upon its successive reissues (Kieżun 2018), we adopted the equivalents of Melville's words and phrases proposed by Zieliński, including the expressions “ryba wolna” and “ryba przetrzymana” (for “loose-fish” and “fast-fish” respectively) appearing in the quote on the homepage⁵ of *Sea and Spar Between*. In contrast to *Moby Dick*, Emily Dickinson's poems have been translated into Polish on a number of occasions – this task has been undertaken by Kazimiera Hłakowiczówna (*Poezje*, 1965), Ludmiła Marjańska (*I jestem różą*, 1998; *Przecucie. Ostatnie przekłady Ludmiły Marjańskiej*, 2005), Stanisław Barańczak (*100 wierszy*, 1990; *Drugie sto wierszy*, 1995) among others (see Salska 2018). In making our translation choices regarding Emily Dickinson's lexicon, we decided to use, where possible, Stanisław Barańczak's translations, due to their congeniality.

Barańczak objected to interpreting Dickinson's oeuvre through the prism of Victorian poetry, writing of the poet: “[S]he was a great innovator, a re-nower of poetic speech, gifted at the same time with a mind of philosophical depth and stopping at nothing in her pursuit of the elusive truth of the world or of her own consciousness” (Barańczak 1990: 5–22). In his commentary on the translation of *Because I Could Not Stop for Death*, he emphasizes: “I view Dickinson as a fundamentally modern poet (...) one who demands that her idiosyncratic stylistic traits should not be smoothed over or made to sound conventional” (Barańczak 1997: 122). The translator underlined the poet's linguistic innovation and original metaphors, “a river of vocabulary open to all possible tributaries, from exotic nomenclature (...) through professional terms (...) to colloquial expressions and idioms” (Barańczak 1990: 5–22), thorough vivid concreteness, the characteristic mechanism of saving any fleeting glimpses of material reality by describing them precisely, and via punctuation that ruptures poetic speech, as features that should be captured and preserved in translation. Thus, the selected elements of Barańczak's translational method, and above all his reading of the Amherst poet's works, became our point of reference. We started by translating the words belonging to the CommonDickinsonSyllable array, used in the Javascript source code

⁵ “Czym są Prawa Człowieka i Wolności Świata, jeśli nie Rybami Wolnymi? . . . Czym jest sama ta wielka kula ziemiska, jeżeli nie Rybą Wolną? A czymże ty jesteś, Czytelniku, jeśli nie Rybą Wolną i Rybą Przytrzymałą zarazem?” (Melville 1985: 134) for “What are the Rights of Man and the Liberties of the World but Loose-Fish? . . . What is the great globe itself but a Loose-Fish? And what are you, reader, but a Loose-Fish and a Fast-Fish, too?”

to generate oneNounLine. Words from this group appear in the first line of each stanza of *Sea and Spar Between*. Finding the Polish equivalent (or even several equivalents) of the words from the original text in Barańczak's translations appeared to be a straightforward task. For example, we identified as many as three different equivalents of the word *hand* (in *The Complete Poems of Emily Dickinson* edited by Thomas H. Johnson, the word *hand* appears as many as 115 times). Barańczak translated it in several ways: most commonly as “dłoń” (“hand”) [J470], “garść” (handful) [J322] and “ręka” (“arm”) [J321]. In the Polish version of *Sea and Spar Between*, we used the word “dłoń” as a monosyllabic equivalent of the English word (also a monosyllabic word), thereby striving to preserve not only the syllabic structure of the poem, but also the graphic form of the generated stanzas. Similarly, we preferred to choose the monosyllabic word “kunszt”⁶ instead of the disyllabic word “sztuka” from the pool of Polish equivalents of Dickinsonian words used by the generator.

It soon became apparent, however, that we could not rely solely and methodically on the legacy of the brilliant translator, poet and literary critic. Barańczak translated only 200 of more than 1,700 poems written by Dickinson, and his translations were influenced, even more than by the features of the original text, by aesthetic assumptions originating from the translator's own creative individuality. Numerous instances of specification, a strategy whereby the source item is described more precisely using a more vivid vocabulary (hypertonic translation), frequently used synecdoches (“table” becoming “tablecloth” in translation [J1173], “garden” instead of a single “flower” [J1624]) and other semantic transformations, such as those involving breaking one word into two or more in order to preserve the rhythm of the translation (“Wild Nights should be / Our luxury” || “Wiodłyby takie Noce / W Rozkosz i Spokój” [J249]), result in the lexis of Barańczak's translations often differing significantly from that of the original texts. A simple equivalent of the noun *buzz* appearing in Dickinson's poetry is rarely found in his translations; it is replaced with a more graphic phrase, “hitting the windows.”⁷ The adjective *footless* is translated as a compound phrase, “stóp

⁶ “Nor any know I know the Art/ I mention – easy – Here – / Nor any Placard boast me – / It's full as Opera –” was translated by Barańczak as: “Bez wielkich liter na Afiszu – / Bez Znawców, którzy pojną / ile się w Kunszcie mieści Trudu – / stoję przed pełną Widownią (Dickinson 2000: 84–85).

⁷ “*Buzz the dull flies – on the chamber window*” [J187] is translated by Barańczak as: “Mucha tłucze się – bez przeszkód – o okna –” (Dickinson 2000: 44–45).

pozbawiony”/ “lacking foot,” rather than literally. At the same time, we tried to stay faithful to the method described by Ewa Rajewska as follows: “It is this variety and richness that constitute the phenomenon of his translation (...). For many common, quite hackneyed, neutral English words, the translator finds nontransparent, sometimes archaic, but always vivid equivalents” (Rajewska 2007, 115). Therefore, in the case of the noun *doll*, which, as noted in the *Emily Dickinson Lexicon*,⁸ is understood by the poet from Amherst as a “little one,” a “delicate creature” or a “small human-shaped form that children play with,” we decided to reject the most obvious choice, namely “*lalka*” (“doll”). Instead, we chose “*kukła*” (“puppet”), which is a non-transparent, non-obvious and expressive word, evoking the image of a being without agency, whose behaviour is determined by the will of others (or who succumbs to the forces of nature). We decided that its semantics were more in tune with the image of someone “barely afloat”, clinging to a spar, flitting across the sea of text – an image-metaphor expressing the condition of the reader of *Sea and Spar Between* (Montfort, Strickland 2014).

From grammar to code and back

The foundation of the Polish translation of the work and the source of its assumptions and guidelines, was not so much the on-screen text as the rules behind its display. These rules are defined in the Javascript code, which includes the arrays of words from which the generator draws its resources. A major problem with the Polish grammar and English-oriented generative algorithms stemmed from the inherent differences between the two languages: different syntax, gendered verbs and longer words in the target language (the syllable count of a single word is often two syllables higher in Polish), required some important additions to the javascript code. The simplest one involved the division of the word sets “*dickinsonLess*”, “*dickinsonSyllable*” and “*melvilleSyllable*” into three subsets, so that the generator, after selecting, for example, the adjective “unforgettable” from the “*dickinsonLessLess*”

⁸ *Emily Dickinson Lexicon*, <https://edl.byu.edu/lexicon/term/604984> [access: 20.03.2021]. The EDL not only was used to specify the meaning of those words from the “Dickinson group” included in the SSB script for which we did not have a translation, but also proved to be an extremely useful “navigation” tool that allowed us to navigate through Barańczak’s translations (Barańczak used line numbering that followed the numbering of *The Complete Poems of Emily Dickinson*, proposed by the publisher’s editor, Thomas H. Johnson, also included in the EDL).

array, matches it with a noun from the “melvilleSyllable” according to its grammatical gender (so, for example, “unforgettable” is matched with the word “sun”, not “paradise”). Matching the grammatical gender required duplicating variables in the Javascript code responsible for the drawing mechanism, a procedure inherent in the process of translating poetry generators from English (Małecka, Marecki 2014: 93–94). For example, the variable “var dickinsonFlatButLessLess” in the Polish version needs to be replaced by three variants: “var dickinsonFlatButFLessLess,” “var dickinsonFlatButNLessLess” and “var dickinsonFlatButMLessLess” (where F, M and N specify actions on the feminine, masculine and neuter arrays).

Grammatical considerations produced even more complications in the variable “butLine ()”. In the original, some of its on-screen outputs result in “then worthless is the sky” and “but guiltless is the earth.” The last of the building blocks of this algorithm, “butEnding,” can have only four values: “sky”, “sea”, “earth” or “sun”. The preceding phrase, “but worthless is the...”, “but guiltless is the...”, takes its subject from the “dickinsonLessLess” pool (words such as *worth* and *guilt*). When the Polish version of this pool is divided into three subgroups, drawing this part of the line should not be a problem. However, with one of the four words in the array defined by the variable “butEnding” having a different gender (the feminine “earth” versus the neuter “sea”, “sky”, “sun”), “butEnding” assumed two forms, i.e. feminine and neuter, and an additional code batch had to be generated to fit this exception into the drawing mechanism. Our programmer had to write a new variable and a new function (ill.1):

```

578
579
580 // w wersji pl dodatkowa linijka do zgodności z r.ż "ziemia" z nowego zbioru
dickinsonButFLessLess gdzie F to końcówki żeńskie: //
581
582 function butFLine(n)
583 {
584     var a, b, c = n % butFEnding.length //n % dickinsonButFLessLess.length;
585
586     n = Math.floor(n / dickinsonButFLessLess.length);
587     b = n % dickinsonFlatButFLessLess.length;
588
589     n = Math.floor(n / butBeginning.length);
590     a = n % butBeginning.length;
591
592     return butBeginning[a] + ' ' + dickinsonFlatButFLessLess[b] + ' jest ' +
butFEnding[c];
593 }
594

```

Figure 1. A code fragment added especially for the Polish version for the single word “earth”

Additions to the source code, imposed by formal linguistic categories such as grammatical gender, make the process of translating a digital work an endorsement for, and example of, more traditional perceptions of translation theory. On the other hand, it constitutes an extension to such traditional assumptions, supported by the experience of translating in digital and network environments. For example, the need to add an additional algorithm responsible for matching adjectives from the “DickinsonLessLess” to the noun “earth” illustrates the non-trivial role played by gender in poetic translation, especially from Western languages into Slavic ones. This phenomenon is vividly illustrated by Roman Jakobson in his landmark study, *On the Linguistic Aspects of Translation*, where he notes that the fact that a feminine gendered word in Russian cannot be used to refer to a man is not merely a formal issue but, being a linguistic principle rooted in the “mythological attitudes of a speech community,” comes to the fore in the translation process. Jakobson illustrates this by quoting the 10th-century *Evangelarium*. In its preface, Constantine the Philosopher problematizes the difficulties arising from the clash between the symbolism of genders in Proto-Slavic and, as Jakobson notes, the “cognitive irrelevance of this difficulty” (Jakobson 2009: 47–48). When translating a computational poem, generic differences are present both at the level of the translator’s reflection and at the level of code. Only when these differences are addressed in the code, can the poetic utterance in the target language be grammatically correct in all possible variants. Exposing the generic difference with new additions to the JavaScript source code, the translator, willingly or unwillingly, introduces a trace of the symbolism of genders into the text, thereby carving out a “mythical” space not featured in the original in such a literal way. For Jakobson, this space is an essential part of the translator’s discourse when translating between Western and Slavic languages.

Kennings

One of the greatest challenges at the level of both grammar and code was to translate *Sea and Spar Between’s* compound words (kennings) while keeping them within the limited space of a single line of the strictly pre-defined structure.⁹ Montfort and Strickland’s idea behind the use of kennings,

⁹ Examples of compoundCourseLine() containing kennings: “fix upon the dollplot course,” “cut to fit the blurhood course,” “how to withstand the discfolk course” (kennings bolded by M.G.-O., M.P.).

a poetic structure of Viking nautical origins, here inspired by Melville, was to juxtapose words from two authors, and from two contrasting artistic vocabularies, within a single linguistic object. As such, kennings, generated by two sets of monosyllabic nouns, are the linguistic and poetic heart and soul of *Sea and Spar Between*. Unfortunately, the number of monosyllabic nouns in Polish is quite limited, with two- and three-syllable verbs forming the majority of the language reservoir. As a result, a line containing a kenning might be extended by up to four or even five syllables, thus disrupting the display of stanzas on the screen. Additionally, the traditional structure of the kenning in Polish poetry takes the shape of two separate nouns in a fixed genitive relationship, with grammar-enforced reshaping of the first possessive element. For example, “kot” and “kołyska” (“cat” and “cradle”) can form a kenning “kocia kołyska” (which is the equivalent of English “*cat’s cradle*”, and not “*cat cradle*”), yet forming the genitive suffix “cia” is subject to a significantly vaguer law in Polish than using the simple possessive “s” in English. Using possessive structures in the case of the original version of *Sea and Spar Between* would be out of the question anyway, since it is the force of the pure juxtaposition of monosyllabic nouns that creates the poetic effect, rather than the possessive relations between individual elements.¹⁰ The Polish translator must therefore not exceed the number of syllables in a line, while at the same time implementing a completely different kenning structure at the level of the code and within the composition of the line. The solution we chose was to alter the structure of the key line with further additions to the JavaScript code. The most drastic move engendered a necessary intervention in the syntax of the verse. However, owing to a fortunate grammatical coincidence, it proved to be the least intrusive and resulted in the most natural outcome. The kenning line structure defined in the code by the “compoundCourseLine()” function has three components: *set upon the* + kenning + *course*, with the two extreme ones being fixed. This kind of order in Polish where the phrase “set the course” is split apart by a complex possessive construction (kenning), is generally not allowed, so we had to rejoin “set” (ustawmy) and “the course” (“ster”) to sit at the beginning of

¹⁰ It is worth noting another complication resulting from the free and random order of the two elements of the kenning in English. The generator allows structures such as *catcradle*, *cradlecat*, *cradlecradle* and *catcat* (included here just as an example, and not present in *Sea and Spar Between*). In Polish, such a free, random reshuffling is not easy; furthermore, it requires a modification of the code rules in order to generate, apart from the kenning “kocia kołyska,” such clumsy phrases as “kołyskowy kot,” “koci kot” and “kołyskowa kołyska”.

the line. By doing so, and thus matching “ster” with the verb “ustawmy,” we reduced the number of syntactic units to two, while preserving the semantics of the original. Fortunately enough, “ustawmy ster,” with one syllable less in Polish than *set the course upon*, compensated for the additional number of syllables in the Polish version of the kenning. A comparison of the two constructions is shown in Figures 2 and 3.

fix upon the blisskick course [7 sylab]

courseStart + syllable[b] + syllable[c] + 'course'

Figure 2. The structure of the line “CompoundCourseLine” in the original text

The risk of a disproportionate – relative to other lines – increase in the syllable count in the kenning line was eliminated at the expense of an acceptable increase in the syllable count by one to three and at the expense of reducing the modularity of the generated line from four (“courseStart” + syllable + syllable + “course”) to three components (“courseStart” + “syllableNominative” + “syllableGenitive”). The Polish version of the generator also owes a good deal to chance. The word *course* is a monosyllabic “ster” in Polish, and *set upon the* is a syllable longer than “ustawmy,” so that *course start* could have the same metric length in the Polish version as the combined *course start* + *course* in the original. Once the Polish generator was available for use, we were even able to abandon our original choice, i.e. the disyllabic, impersonal “ustaw,” which disrupts the tone of the line, in favour of the plural “ustawmy,” which better fits the prosody of the Polish language, without overpopulating the line with an over-syllabic kenning.

ustawmy ster na kopniak zachwytu [9 sylab]

courseStart + course + syllable[g] + syllable[n]

Figure 3. The Polish equivalent of the line “CompoundCourseLine”

Dickinsonian “-less” words and neologisms

The inadequacy of the existing Polish translations of Dickinson’s poetry and Melville’s prose for the purpose of translating *Sea and Spar Between* became apparent at the stage of finding equivalents for Dickinson’s typical adjectival expressions with the prefix “less.”¹¹ For Montfort and Strickland, they constitute the second key feature of the generator, being used in two out of the seven rules for stanza generation. Finding Polish equivalents for these constructions was by no means an easy task. *The Sea and Spar Between* code generates them in a modular manner, adding the suffix “less” to a one-, two- or three-syllable stem. The implementation of an identical structure in Polish is virtually impossible for a number of reasons, including the three gendered suffixes for adjectives and frequent stem alternations depending on the etymological traits of a given word. In addition, “less” structures in Polish use two alternatives for the very “less” in question: “nie” or “bez”. Therefore, we decided to simulate rather than reproduce the generative procedure from the original by populating the arrays of *--less* adjectives with pre-made conjoined structures. Decisions as to whether to use the Polish “nie” (no) or “bez” (less) in the equivalents of Dickinsonian *-less* adjectives (e.g. whether to use “niemierzony” or rather “bezkresny”) were based on grammatical criteria, word-formation criteria (syllabic economy), and, most importantly, on the semantic framework created by Montfort and Strickland. The result was an array of 60 words, which was then divided into three subgroups: feminine, masculine and neuter adjectives, which included 23 Dickinsonian neologisms. Although theoretically it would be relatively easy to find their more-or-less precise paraphrases or calques in the Polish dictionary, we preferred to open up our translation to word-creativity, since the idiosyncratic character of new word-formations (evoking an analogy with Bolesław Leśmian’s¹² poetic ontology of *embodilessness* is an important element of the American poet’s style. Thus, for example, instead of translating *droughtless* as “niewysychający,” we preferred to use the neologism

¹¹ The formula is discussed in detail by Strickland and Montfort in the code of the recent critical edition of the original *Sea and Spar Between*. See https://nickm.com/montfort_strickland/sea_and_spar_between/sea_spar.js [access: 20.03.2021].

¹² Bolesław Leśmian (1877?–1937) was a poet associated with the Young Poland movement, and an important innovator of Polish poetry. His innovative idiosyncratic style, full of neologisms, earned him the reputation of being a largely untranslatable poet.

“niedoschły,” which, while meaning something evergreen, simultaneously implies an untapped potential, which may yet be realized at any moment. The aim of this procedure, a wordplay and word-formation, was both to multiply the word’s semantic potential, as well as to create semantic density within a formalized linguistic structure, a procedure borrowed in part from Stanislaw Barańczak’s translation methodology. At the same time, it should be noted that Barańczak, when confronting Dickinson’s neologisms during the process of translation, tended to paraphrase them.¹³ In our case, the requirement of syllabic economy prevented us from doing so.

Conclusions

The cases discussed above, where the target language requires changes not only in the code structure, but also in the philosophy and artistic vision of the original text, demonstrate dilemmas faced by translators of poetry generators, especially those as complex and unique as *Sea and Spar Between*. Many of the translation challenges mentioned in this article, if not resolved appropriately, could give rise to a certain imbalance between the distinctive features of the original. For example, a traditional, logocentric-oriented translator might focus excessively on the on-screen output of the generator, disregarding the code or, at best, treating it as a means to an end, a tool for producing a grammatically and stylistically correct translation. Such an approach would result in overpopulating the code with numerous exceptions, additional functions and variables tailored to accommodate the less modular grammar of Slavic languages. The final result would then be devoid of the computational, generative feel of the unimaginably vast sea of stanzas. In other words, overpopulating the code with linguistic exceptions would lead to the “decomputation” of the on-screen outcome, while failing to include the crucial aspect of *Sea and Spar Between* as a framework for unexpected, unruly encounters between words. One can also imagine the opposite situation, where a translator, overly-focused on the code, strives to make the Polish version reflect the spirit of minimalism and modularity as

¹³ Sometimes Barańczak omitted neologisms from his translations. One example is *listless* (J187) in the line “Lift – if you care – the listless hair,” translated as “Baw się włosów obwisłym pasmem – ” (Dickinson 2000: 44–45). Other examples: (J327) – “stintless stars” / “gwiazdy bez ograniczeń”, (J328) – “leap plashless as they swim” / “co spada bez plusku”.

closely as possible. Such an approach would involve interfering with the code only where necessary, e.g. when modifying the control file with the HTML5 Canvas element so that it supports Polish diacritics, while disregarding grammatical gender and thus limiting the number of subset arrays in the code. The latter approach would result in fewer stanzas being displayed on the screen. Eliminating just one word – the “earth” in question – from the four words drawn when creating a “butLine()” would reduce the number of possible stanzas to be generated by at least a million. Even for a work that can create quintillions of variants, a million less is a significant loss.

Overpopulation and depopulation mark the extremities of a spectrum of translation strategies towards this multi-layered digital work, involving multiple actors in the processes of creation and translation. Finding a balance between modular and non-modular strategies (manual or arbitrary algorithms), and between overpopulation and depopulation (of the code or of the screen [canvas]) should be taken into account at every stage. It is worth mentioning that the decisions of the Polish translators often gravitated toward the conservative end of the spectrum. We automatically tended to smooth out the generator’s work, but fortunately, Stephanie Strickland and Nick Montfort recommended that we set our translation course back to the modular pole. In the end, instead of hiding the generative nature of the work, we let it reveal itself. This is the case both with kennings (similar generative roughness can be found in both the original text and the translation) and with gendered structures (appearing only in the Polish version). The lesson learnt over time, after several attempts at polishing and humanizing the output of the generator, or making it more traditional, is that it allowed us to convey the spirit of the original text more closely, while at the same time appreciating the new horizons that it opens up for translation studies as a milestone in the field of electronic literature.

Translated by the Authors

References

- Bal, Mieke, Van Boheemen, Christine. 2009. *Narratology: Introduction to the Theory of Narrative*, Toronto: University of Toronto Press.
- Barańczak, Stanisław. 1990. “Wstęp. Skoro nie można mieć wszystkiego”, in: Dickinson Emily, *100 wierszy*, trans. S. Barańczak. Kraków: Arka.

- 1997. “Emily Dickinson’s ‘Because I could not stop for Death’ – Remarks of a Polish Translator”, *The Emily Dickinson Journal* 2, pp. 120–126.
- Buzelin, H el ene. 2011. “Agents of translation”, in: L. Doorslaer vab, Y. Gambier (eds.), *Handbook of Translation Studies* 2, Amsterdam: John Benjamins, pp. 6–12.
- Dickinson, Emily. 2000. *Wiersze wybrane*, trans. S. Bara nczak, Krak ow: Wydawnictwo Znak.
- 1990. *Sto wierszy*, trans. S. Bara nczak, Krak ow: Wydawnictwo Arka.
- G orska-Olesi nska, Monika, Pisarski, Mariusz. 2018. “On Polish Translation of Sea and Spar Between”, in: J. Tabbi, G. Tremblay-Gaudette, D. Grigar (eds.), *Chercher le texte The Proceedings for the ELO 2013 Conference*, <https://scalar.usc.edu/works/cherchez-le-texte-proceedings-of-the-elo-2013-conference-1/on-polish-translation-of-sea-and-spar-between.4> [access: 20.03.2021].
- Hayles, K.N. 2003. “Translating Media: Why We Should Rethink Textuality”, *The Yale Journal of Criticism* 16 (2), pp. 263–290.
- Jakobson, R. 2009. “O j zykoznawczych aspektach przekładu”, trans. L. Pszczo owska, in: P. Bukowski, M. Heydel (eds.), *Współczesne Teorie Przekładu. Antologia*, Krak ow: Wydawnictwo Znak, pp. 41–49.
- Johnson, Tomas H. (ed.). 1960. *The Complete Poems of Emily Dickinson*, Boston: Little, Brown and Company.
- Kaczorowska, Monika. 2011. *Przekład jako kontynuacja twórczości własnej. Na przykładzie wybranych translacji Stanisława Bara nczaka z j zyka angielskiego*, Krak ow: Universitas.
- Kie zun, Piotr. 2018. “Stary nowy Moby Dick. O reedycji najslynniejszej powieści Hermana Melville’a”, *Kultura Liberalna* 511 (43), <https://kulturaliberalna.pl/2018/10/23/piotr-kiezun-recenzja-moby-dick-melville/> [access: 20.03.2021].
- Ma lecka, Aleksandra, Marecki, Piotr. 2014. “Hyper-constrained: Translating Nick Montfort’s Textual Generators”, *A Journal of Literary Studies and Linguistics* IV (1), pp. 83–91.
- Melville, Herman. 1985. *Moby Dick, czyli Biały Wieloryb*, trans. B. Zieli nski, Warszawa: Czytelnik.
- Montfort, Nick, Strickland, Stephanie. 2010. *Sea and Spar Between*, https://nickm.com/montfort_strickland/sea_and_spar_between/reading.html [access: 20.03.2021].
- 2014. “Spars of Language Lost at Sea”, *Formules* 18, pp. 223–235.
- 2020. *Cut to Fit the Toolspun Course: Discussing Creative Code in Comments*, version 1.0.2, 2020.02.02, https://nickm.com/montfort_strickland/sea_and_spar_between/sea_spar.js [access: 20.03.2021].
- Moulthrop, Stuart. 2013. *Failure to Contain: Electronic Literature and the State (Machine) of Reading*, a lecture delivered on 5 April 2013 at the Library of Congress, Washington, D.C. [lecture manuscript provided by the author].
- 2017. “Entity and Event: Electronic Literature in Context”, in: D. Griar, S. Moulthrop (eds.), *Traversals: The Use of Preservation for Early Electronic Writing*, Cambridge: MIT Press.
- Moulthrop, Stuart, Schumaker, Justin. 2016. “Along the Folds. Sea and Spar and Portals Between”, *CounterText* 2 (2), pp. 130–139.

- Rajewska, Ewa. 2007. *Stanisław Barańczak – poeta i tłumacz*, Poznań: Wydawnictwo Poznańskie.
- Salska, Agnieszka. 2018. “Emily Dickinson po polsku”. *Poznańskie Studia Polonistyczne. Seria Literacka* 33, pp. 271–290, <https://doi.org/10.14746/pspsl.2018.33.16> [access: 20.03.2021].
- Sample, Mark. 2013. *House of Leaves of Grass*, <https://fugitivetexts.net/houseleaves-grass/reading.html> [access: 20.03.2021].
- Shillingsburg, Peter L. 1991. “Text as Matter, Concept, and Action”, *Studies in Bibliography* 44, pp. 31–82.