DUAL WIELD:

ADVENTURES AT THE INTERPLAY OF POETRY AND COMPUTER GAMES

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Abstract

In recent years, poets and digital game developers alike have begun to experiment with the possibilities of poem-game interplay and hybrid poetry games. The results of such experiments are intimately connected to poetry's expansion into digital-interactive space, a process described by Loss Pequeño Glazier as extending "the physicality of reading". This experiential augmentation runs both ways: the technologies associated with game development permit the reader's cybernetic incorporation into the world of the poem, while poetry may be used to lend shape and meaning to the bodily sensations experienced by the player of computer games.

Additionally, computer game culture, long underprivileged in arts discourse, represents a new frontier of emergent assimilable dialect for the poet. The components of the computer game – its rules, content, interface, hardware – may all be absorbed into the textuality of the poem, recruited as units of poetic meaning, not just verbally but ideogrammically, imagistically or calligrammically. This is, in short, an abundant new playground for poets, while on the other side of the equation, the organisational strategies of poetry make for an equally rich resource for game developers.

This project takes the form of a hybrid of more conventional theoretical analysis and practice-based research, analysing the existing state of poem-game hybridity and testing ways that it might be advanced through the creation of various example artefacts. In developing these examples in tandem with theoretical analysis, I establish a number of continuums to help visualise the phenomenological tensions that exist between poetry and computer games, and which must be negotiated in order for interplay or hybridity to be effective. I then develop a rough taxonomy of poetry-game hybridity, including ludo-poetic intertextual mutation and ludokinetic poems, and set out a number of works of my own as examples of how these categories might be expanded.

The word count of the following document is 35,908, excluding contents, bibliography and mediography. The word count of the following document plus the commentary text on the accompanying website is 47,644.

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1. Introduction

1.1. A World of Made

> A world of made
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> is not a world of born --- pity poor flesh
>
> and trees, poor stars and stones, but never this
>
> fine specimen of hypermagical
>
> ultraomnipotence. (Cummings, 'pity this busy monster, manunkind' 9-13)

In July 2016, players discovered a secret code hidden in plain sight in *Inside* (Playdead, 2016), a puzzle-platforming computer game released across PC, Playstation and X-Box one month previously. Towards the end of the game, the player's avatar passes in front and behind two glass panels bearing a sequence of numbers. When decoded using a Polybius Square, these numbers were revealed as referencing the title of a sonnet by E.E. Cummings, 'pity this busy monster, manunkind' (Cummings, 1944).[1]

Read in the light of this discovery, the poem complements and expands on the philosophical themes of *Inside*. Poem and game talk to one another. Cummings' arch-scepticism toward techno-fetishism (Yaron, pp.116-117) is reflected in the desaturated, near-lifeless vistas that make up the game's world, replete with killer machines. Both deploy formal ingenuity (the poem's compound words and idiosyncratic diction, the game's surreal physics puzzles) as funhouse mirrors to the "world of made", turning gloom into playground. Cummings' exhortation to "pity poor flesh" resonates with a recurring device in *Inside*

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[1] For a visual guide to how the code was cracked, see http://imgur.com/a/USImD [accessed 20th August 2019].

whereby the player, via their avatar, takes partial control of human facsimiles – flesh without independent thought, sullenly slumped when at rest. These facsimiles grow more and more featureless until, in the final stages of the game, the player becomes the guiding will of a great, moving jellyish mass of body parts as it attempts to escape the grim facility in which it was born (or made). Both poem and game separate, at the level of their semiotic interface (so words in the one case, interactive digital objects in the other), the physical body from mankind's collective techno-scientific knowledge, "poor flesh" from the "fine specimen of hypermagical / ultraomnipotence" represented by scientists in their laboratories. These are placed in opposition to one another, though both are, in their own way, "busy monsters". Poem and game end by teasing the player/reader with the sense that freedom is both possible and impossible: the speaker in the poem interrupts himself to urge a visit to "a hell / of a good universe next door", while the protagonist of *Inside* crashes through the outer wall of their prison, tumbling down onto a shoreline that is implied (via an earlier small-scale model of the scene) to be nothing more than a set, another room in a larger containment facility.

This is one example of what I will be referring to as the *interplay* of poetry and computer games, 'interplay' being both the collaborative act itself and the space where it happens. In this case, the poem is not contained inside the game, was not originally composed for publication in a digital medium, was not even composed with the game in mind. Yet the game recruits the poem, pointing the player toward it, offering not the poem itself but its import as a reward for attentive play and deductive intelligence. The poem attains an additional frame of reference within the realm of its reader's direct (and probably recent) experience playing the game, while the game gains an additional mode of voice. They are yoked together in a coherent expressive continuum.

1.2. Aims and Methodology

This project takes the form of a combination of conventional theoretical analysis and practice-based research, analysing the existing state of poem-game interplay and hybridity and testing ways that it might be advanced through attempts to create working prototypes. In Robin Nelson's formulation for practice-led research, there ought to be "a resonance between complementary writing and the praxis itself" (2013, p.11), a multi-mode enquiry where the practice is "at the heart of the methodology of the project" (p.26), flanked by a documentation of process and the written component. In this case, I begin with an introductory chapter that outlines the immediate cultural and critical context for the enquiry, followed by a second chapter that explores, through a review of the literature, the theoretical underpinning to the project: an experiential and conceptual overlap between poetry and computer games, based on the core underlying concept of play.

This then forms the appropriate starting point for an initial series of practical experiments into hybrid poetry games, which are published and playable online at www.gojonstonego.com/dual-wield/, where they are accompanied by individual exegeses and documentation of process. Their purpose is to experiment with the forms poem-game interplay might take, and to point toward specific issues, tensions and limitations that arise in producing these forms.

That practical work feeds into a third chapter which analyses the tensions and limitations in detail. Put simply: is it possible to create something that can be read as a poem and played as a game at the same time? Are the differences between these media types too great, the modes of engagement they invite too distinct? In answering these questions, I devise three continuums that serve to help visualise the tensions between poetry and computer games, so that I and other practitioners can consider how to either minimise, mediate or exploit them in future experimental forms.

In the chapter following on from this, I develop a taxonomy of four major types of poem-game interplay, including but not limited to hybrid artefacts, and analyse a number of existing examples using the continuums devised in the preceding chapter. This taxonomy

then informs a further series of practical experiments, where I attempt to expand the categories individually and then document my overall conclusions from carrying out these experiments. The practical component of the project, in conjunction with theory, allows me to develop insights into poem-game hybridity from two opposing perspectives – as a practitioner and as a reader and player. Each is valuable in informing the other. The taxonomy, for example, is useful for shaping and categorising the practical output, while the early experiments assist me in formulating Chapter 3's continuums.

The project is intended as a contribution to both games studies – a recently developed area of academic study that has emerged in response to the increasing ubiquity of computer games – and literary criticism, and pursues a dialogue between these two disciplines. In this respect, it builds on the work of Astrid Ensslin in *Literary Gaming* (2014). Ensslin observes that we are entering a second wave of games scholarship, moving away from debates and discussions about the nature and boundaries of the discipline and increasingly turning to detailed analysis of specific areas. Situating her work within this second wave, Ensslin considers ludic-literary hybrids – artefacts that exist on a scale that runs from "ludic digital literature" to "literary computer games" (p.44) – and develops an analytical framework that combines elements of literary analysis and ludology. For Ensslin, *literary* here means "verbal art in the broadest sense", but also works that have "an aesthetic concern with structural and thematic elements of their own form, genre, or medium" (p.2).

The approach to poem-game interplay I adopt in this project is rather different to Ensslin's. It is narrower in the sense that I am not interested in literary fiction or drama, or any literary form where narrativity is the dominant. It is wider in the sense that Ensslin emphasises the self-reflexivity of verbal art, which she regards as necessarily engendering "subversive play" or "playing with rather than by the rules" (p.19), while also confining herself to digital-born artefacts that foreground spoken or written language. I will instead be discussing poem-game interplay as an area that includes texts that are not digital-born but which refer to, address or otherwise involve themselves with computer games, as well as

computer games that adopt the strategies of poetry without necessarily foregrounding the spoken or written word. I will not be taking it as self-evident that verbal art is self-reflexive or subversive, or that it deconstructs its own rules.

Ensslin conceives of a specific category of *poetry games* in the eighth chapter of her book, "The Paradox of Poetic Gaming", where she contends that the differences between poems and games ensure that there is a "receptive and interactive clash" (p.142) when the two are brought together. She considers this a deliberate design decision by the developers of hybrid poetry games, intended to critique gameplay habits of players, as well as the conventions of mainstream gaming culture. I will go into this in more detail in Chapter 3, but my contention throughout this project will be that poem-game hybridity extends beyond this act of cultural critiquing, and that the paradox as Ensslin envisages it is, in fact, negotiable. To the extent there is a receptive and interactive clash, it can be either mitigated or pointed toward different artistic ends, as I will aim to demonstrate through both the practical component and analysis of existing examples.

Ensslin's study of poetry games is somewhat isolated in the existing scholarship; while games studies is regarded in the academy as being closely allied with film and media studies, it enjoys little crossover with English departments, and where literary theorists have embraced computer games more generally, they have tended to fixate on narrativity to the exclusion or side-lining of poetry. Writing on digital and new media poetics, meanwhile, has revolved largely around the platform of the internet browser and artefacts that are interactive without aspiring to game-like qualities. In the field of literary criticism itself, there are myriad overlapping theoretical approaches which may be drawn on, from freshly dusted-off historicism to "surface reading" (Best and Marcus, 2009), but for the purposes of this project, the most appropriate point of departure is Marjorie Perloff's *Radical Artifice: Writing Poetry in the Age of Media* (1991). Perloff begins with the premise that contemporary poetry is unavoidably in conversation with digital media, and that studying it without regard to that context is limiting. The nature of the relationship between what she calls "the most remote

of the various literary genres" (p.xiv) and media discourse in the information age is enormously complex, giving rise to poetries that reject mimetic naturality (of speech and thought) in favour of radical artifice – that is, embracing their very made-ness and materiality. These poetries absorb and remix the form and language of advertising, television, film, the internet and more besides, in advanced acts of defamiliarisation, emphasising the text as image, procedure, assemblage and object, something to be toyed with, tested and explored rather than merely read.

Perloff's concluding example is John Cage's "unreadable book", *I-VI*, which she describes as soliciting a kind of reader engagement that "involves *making* rather than *taking*" (p.216), a phrase that is inadvertently echoed by games scholar Brendan Keogh when he says that computer games "call for the player to *actively make belief*" (2018, p.83). The reader of *I-VI* is tasked with being alive to their own agency in picking a path through the text, in making meaning from it, in a manner similar to the way the player of a computer game makes the effort to navigate and complete the game world. "That path," says Perloff, "may be aural (tracing the phonemic repetitions and variations) or visual (tracing mesostic capitals versus the 'wing' word groups) or dialectic (reading the A text [mesostic] against B [commentary] and both against C [source]) or semantic (inspecting the recurrent 'news' items and relating them to the abstract speculations that surround them), or, for that matter, literary" (p.216).

Removing the specificity to Cage's text, this is a critical perspective on poetry that describes it in nonlinear terms and emphasises the existence of poetic units beyond the literary: visual, spatial, aural and so on. Perloff's subject is avant-garde techniques developed in the late 20th century, but these have only proliferated in the years since *Radical Artifice* was published, even crossing into mainstream poetry. My own background as a practitioner in poetry and poetry publishing has seen me collaborate with a variety of British poets whose work ranges from traditional lyrics to experiments in concrete and calligraphic poetries, digital interactive poetry, film poetry, hypertext poetry, code poetry, collage and procedural poetry. Any or all of these may overlap with the kind of poetry that interplays with computer

games, so I will adopt a wide-angle viewpoint, one that approaches the poem as a restlessly pliable and *playable* contrivance.

1.3. Rationale for the Project

The possibilities of poem-game interplay are intimately connected to the question of poetry's expansion into digital space. In his essay 'Poetry and Hypertext: The Sense of a Limit', Fernando Cabo Aseguinolaza quotes the Nobel-winning poet Octavio Paz, writing in 1991 on the significance of screen technology to the medium:

> The two great poetic traditions, written and oral, converge on television screens … The page becomes an animated surface, which breathes, moves and changes from one colour to another. At the same time, the human voice – or rather, voices – can be enjoined in combination with the lyrics. Finally, visual and sonic elements, instead of being mere adornments, may be transformed into organic parts of the body of the poem. (1991, p.597)

Aseguinolaza extrapolates to the computer screen:

> It is not easy to find a description that suits better the enticement of the electronic medium for a poet. A screen that breathes, moves, and changes restlessly in contrast with the steadiness of the printed page. The screen as page, but a page of a completely different kind. We may wonder what Octavio Paz could have said in case he had noticed the possibilities of modern computers to enhance the animated power of the screen and to lend new dimensions and a sense of autonomy to the written word. (2000, para 11 of 26)

Similarly, Loss Pequeño Glazier has composed a manifesto for digital poetry in the shape of his 2002 book *Digital Poetics: The Making of E-Poetries*, in which he argues that "an electronic poetics alters the 'eye' ('I') and also extends the physicality of reading. With the keyboard, literal manipulation is engaged with fingers determining different referentialities of the text – a sight more active than repetitious page-turning" (2002, p.37).

It is curious, then, that in the intervening years there has not been more advancement by poets and poetry into the territory of computer games, arguably the medium most synonymous with the digital age. What games offer poetry is not just the technology of screen, keyboard, controller, but a significant experiential augmentation. As Keogh argues in *A Play of Bodies*, his recent phenomenological reading of computer games, players "become incorporated into an assemblage that is the *player-and-videogame*" (2018, p.22). Games bridge the actual and the virtual via multisensory feedback, pulling us bodily into their worlds while imprinting themselves on ours. This could function as an intensifier of the powers of suggestion already evident in poetry in a variety of forms. Poems are, after all, also envisaged as possessing a world. Frank O. Copley, writing on Catullus, for example, says that "a poem is itself. It presents its own world to its readers and demands that they accept it as true for the purposes of the poem" (1958, p.9). We can conceive of the physicality of reading being extended by the reader's cybernetic incorporation into the world of the poem, a world that they can touch and interact with via computer control interfaces.

Additionally, computer games present an opportunity to expand the linguistic armoury – and thus the expressive range – available to poets. Multiple 20th and 21st century movements have been based around broadening the accepted range of suitable poetic material, from the Scottish Informationists' concern with digesting and transmitting "underprivileged" data (Price, 1994, para 1 of 18) to Flarf poetry's assimilation and amalgamation of internet detritus. Computer game culture, itself underprivileged in arts discourse, represents another frontier of emergent assimilable dialect. Computer games are extremely diverse in form and

content, rich in visual, audial, textual and symbolic matter. They also generate a great deal of paratextual material, in the form of lore, strategy guides, player dialogue, user modifications, hacks and rewrites, companion fiction, fan fiction and fan art. As with Perloff's account of poetry's ability to absorb and remix the language of televisual media, all this material has potential to be reformatted and deployed within poetry, not just verbally but ideogrammically, imagistically or calligrammically. This is, in short, an abundant new playground for poets, which this project aims to begin mapping.

But of what interest is poetry to the creators and players of computer games? As it stands, games already engage to some degree in the absorption and "remediation" (Boulter and Grusin, 2000) of poetry, employing it largely as filigree and incidental detail within vast virtual worlds. This reflects a wider cultural perspective on poetry as occasional oddity, or, at best, marker buoy for textual depth. The claim I will substantiate in this project is that a more fundamental engagement is both necessary and inevitable. Chapter 2 will explore the underlying conceptual overlap in detail, but by way of an introductory overview, computer games and poetry share the dominant organising principle of *segmentivity*, a term coined by the poet Rachel Blau DuPlessis in 1999 (and later expanded on by literary theorist Brian McHale) to describe an alternative to narrativity as a basis for textual organisation and meaning. Where segmentivity is the dominant of a text, meaning is generated by the paratactic arrangement of units – we see them working together side by side, rather than (or as well as) reading them start to end in linear fashion. We find significance in patterns and parallels, in coincidence and contrivance, in rhyme and repetition, rather than (or as well as) in chains of logic and causation.

Computer games already rely on repetition as a device for training players to successfully master their systems, as well as extending the playtime offered. They rely, possibly to an even greater extent, on players' facility with reading patterns and rhythms as the basis for many of the challenges they set. But it is rare that a game implies there is any meaning to its patterning and repetition beyond enabling player embodiment and

progression. Quite the opposite: usually, narrative is superimposed over the gameplay experience, and the player is asked to ignore or forget the repetitiousness of their actions and the segmentation of the game environment in order to make sense of the game as a narrative work. In a typical action game, for instance, it is possible for the player to watch their avatar die and relive the same moments dozens of times, rewinding time until they make exactly the right decisions, only for the story to proceed as if the avatar possessed no such ability.[2] Jesper Juul characterises this tension as a dichotomy between *real rules* and *fictional worlds*, rendering games "half-real"[3] (Juul, 2005). Parataxis – side-by-side placement – adequately describes the way a computer game arranges its components in order to facilitate gameplay, but the tendency of games is to chafe against this arrangement as part of the effort to build meaningful context around that gameplay. Viktor Shklovsky, in 1917, defined art as a defamiliarising technique, to "impart the sensation of things as they are perceived and not as they are known" (1917, para 11 of 40), a counterforce to habitualisation, which Shklovsky memorably describes as devouring all wonder. In presenting themselves as stories, mainstream computer games work in the opposite direction: they are naturally unnatural, necessarily contrived, but labour to habituate the player to their alienness, to be perceived as life-like. By adopting the signification strategies of poetry, computer games have the opportunity to embrace their own strangeness rather than seeking to neutralise it. Poetic devices such as the refrain, anaphora, epistrophe and homeoteleuton, for example, are forms of repetition that can be enacted through the recycled surface textures, objects and player actions within the world of the game, just as they are with words.

To put it simply: the computer game has historically evinced a predominant interest in becoming an advanced kind of story. It has yet to convincingly explore the possibility of

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[2] The most infamous case of this in gaming culture is the death of Aerith Gainsborough in Square's *Final Fantasy VII*, released in 1997. Throughout this game and others like it, members of the player's party may be revived from near-death by the use of a commonly available item called Phoenix Down. When the story calls for Aerith to suffer a fatal injury, none of the other characters even consider the chance that she may be revived.

[3] All phrases present in the title of Juul's *Half-Real: Video Games between Real Rules and Fictional Worlds* (MIT Press, 2005).

becoming an advanced kind of poem, and one basis for this project is that such exploration is a route to expanding the versatility and impact of the computer game as an artform. Additionally, the experiential augmentation that computer games offer poetry runs the other way as well. Words by themselves retain a unique, near-limitless expressive power, and may be used much more concertedly to give shape and meaning to those bodily sensations experienced by the player as they interface and coalesce with the game-world.

I advance this research project at a point when poets and game developers alike are starting to experiment with the possibilities described above, when it is not unknown for an independently produced computer game to proudly pronounce itself "poetic" (Morgondag, 2015), for a poem published in a leading British journal to take its central metaphor from *Super Mario Brothers* (Ravinthiran, 2018), or for a young artist to identify as both poet and game developer (Douglas, 2015). The tools required to make and publish computer games are more widely and cheaply available than at any time before, while the visibility and centrality of contemporary poetry has been immeasurably enhanced by the proliferation of social media and easy-to-maintain web hosting platforms. Enough examples of poem-game interplay and hybridity now exist for the associated challenges to be interrogated and a tentative taxonomy to be developed. This project is intended to fill that gap.

1.4. Issues and Wider Context

There are a number of surface-level similarities between poetry and computer games that, on initial inspection, are useful in analysing and developing poem-game interplay. Both are conspicuously segmented in ways that are aesthetically foregrounded. Poems divide into stanzas, lines, phrases, words and metrical feet, games into stages, maps, zones, rooms, biomes, difficulty levels, menus and submenus. Both habitually deal in the fantastic – their worlds are dreamlike or highly imaginative. Both are associated with challenge; that is, there

is a popular idea that to be able to play computer games proficiently or to be able to understand poems takes practice and patience in a way understanding stories or watching films does not. As such, both attract debate as to the role of accessibility, with defenders of difficulty rejecting what they regard as condescending to their respective audiences, while reformers point to their niche status, their struggle to be taken seriously by both mainstream news media and the wider public.

Perhaps most pertinently, both are known to absorb, incorporate and amalgamate other forms and genres. Poetry does this most noticeably with types of speech and writing – we can think of Robert Browning's development of the dramatic monologue poem, for example, the long tradition of the epistolary poem or the more recently invented prose poem. Dick Higgins' *Pattern Poetry: Guide to an Unknown Literature* (1987) reviews examples of puzzle and pictorial poems across a variety of languages and cultures over several centuries, while Perloff documents avant-garde poems that imitate or inhabit the form of signboards, maps, inventories and sculpture. The popularisation of the computer has resulted in a period of continuous experimentation with advanced methods of assimilation and rearrangement, beginning in 1959 with Théo Lutz's *Stochastische Texte*, a poetic text generator that reordered lines from Kafka. In 1971, while *Galaxy Game*, the world's first commercial arcade machine was installed at Stanford University (Pitts, 1997), Alan Sondheim created *4320*, a film-poem made using a hypercube projection program, and in 1976, the year of *Breakout* (Atari, 1976) and the founding of Apple, Angel Carmona published *Poemas V2: Poesia compuesta por una computadora*, the world's first book of computer-generated poetry, printed so as to replicate the appearance of an IBM computer readout. Code poetry incorporates the aesthetics and some of the functionality of computer code, while the procedural poetry produced by Twitter bots may be constructed algorithmically from fragments of social media or include images pulled from online databases.

On the other side of the equation, computer games habitually simulate, synthesise or approximate almost every other kind of media, from film and music to card games and

handwritten letters. They are an integral part of the trend that media scholar Henry Jenkins has dubbed "convergence culture" (Jenkins, 2006), where media franchises extend across and between old and new media, developing audiences that migrate across genres and technologies in order to immerse themselves as fully as possible in fictional realities. Computer game developers, encouraged by rapid technological progress and the explosive growth of their industry, have increasingly aspired to reproduce the effects of narrative media as part of the suite of experiences that games offer, promising their users something close to the starring role in action films and mystery novels.

Beneath the surface similarities, however, there are significant phenomenological and cultural differences between poetry and computer games. In the popular imagination, they lie at opposite ends of a scale that runs from the aloof to the frivolous, from high art to low. Poetry is regarded as serious, cerebral, cryptic and hermitic, computer games as flashy, trivial and senseless amusements. Poetry is technologically simple and semantically complex; computer games are semantically simple and technologically complex. One of the barriers to emergent hybridity and interplay is the accompanying perception of any such cross-pollination as detrimental in both directions: poetry being trivialised by association, and computer games being made duller, less playful.

There are practical problems related to this distinction. Keogh describes certain types of game as inculcating and requiring "embodied literacy" (p.14); that is, familiarity with the controls and the routines that need to be enacted by the player. As a result, non-gamers may find games difficult to read visually, let alone play. Poetry, meanwhile, requires its own form of specialised literacy, and the number of people who are fluent in understanding and inhabiting both computer games and poems is likely to be extremely small.

This is true to an even greater extent of the practices of making games and poetry. The technological tools may be available, but poets and game developers alike spend years honing their expertise, with game development requiring (more often than not) the coordination of teams of people working on different aspects of the game. The pressures on

practitioners to succeed within the parameters of their chosen medium is already intense, the competition fierce, and as Don Paterson warns in 'The Dark Art of Poetry', the process of making poetry alone is "messy, insane" (2004, para 3 of 13) and liable to drive the poet mad – or, as T.S. Eliot puts it:

> … each venture
>
> Is a new beginning, a raid on the inarticulate
>
> With shabby equipment always deteriorating
>
> In the general mess of imprecision of feeling.[4] (Eliot, 'East Coker' V. 7-10)

The title of this project, 'Dual Wield', in part reflects the difficulties presented by this wider cultural context. It is taken from the name of a special ability in role-playing computer games, which typically allow a player avatar or ally character to arm themselves with a weapon in each hand at the cost of both weapons' strength. In the Japanese role-playing game *Bravely Default* (Square Enix Holdings, 2012), for example, fitting a weapon into both the 'l.hand' and the 'r.hand' slot will result in the attack power of each weapon being reduced by 50%. Only a character with the 'dual wield' ability can bring the attacking power of both weapons to bear.

I employ this here as a metaphor: experiments in poem-game interplay and hybridity carry the risk of reducing the effectiveness of both, of creating artefacts that are abrasively difficult to read or play and which have diminished appeal to both readers of poetry and players of computer games. In the context of this project, I am restricted by a lack of experience in game development and a lack of personnel, and as such I will not be able to comprehensively address the problems I raise here. The practical and theoretical components

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[4] I owe this observation to an article by John Hartley Williams published online at http://www.pennilesspress.co.uk/poetry/john_hartley_williams.htm, [accessed 20 August 2019].

alike are, however, aimed at exploring, itemising and examining the resulting incongruities with a view to developing ways of mitigating and overcoming them, and therefore 'dual-wielding' poetry and computer games effectively in future compositions.

One of the functions this serves is to challenge the view of computer games as empty of expressive purpose or meaning. As Mary Flanagan puts it in *Critical Play: Radical Game Design*, her survey of (and manifesto toward) expressive and critical game design:

As a cultural medium, games carry embedded beliefs within their systems of representation and their structures, whether game designers intend these ideologies or not … Many scholars, game makers, and consumers observe that computer games can embody antagonistic and antisocial themes including theft, violence and gore, cruelty, problematic representations of the body in terms of gender and race, and even viciously competitive approaches to winning as a primary game goal. (2009, p.223)

I enjoin with Flanagan in aiming to map out ways in which the expressive power of computer games can be turned toward more socially responsible themes, as well as ways in which existing elements of computer games can be recontextualised through their incorporation in poetry, by, for example, moving literal depictions of violence into the realm of the mythic and metaphoric.

In working to overcome some of the practical obstacles to poem-game hybridity, the project also agitates against the more general perception of a divide between serious and trivial media types. The separation of these different types into one of high or low art is, in any case, a formulation that undergoes constant revision, such that the hierarchies of genre that prevailed in previous eras look antiquated today. In 'Genre and the Literary Canon', Alistair Fowler records that throughout the late sixteenth, seventeenth and early eighteenth centuries, the epic poem was regarded as "the chief effort of human sense" (John Sheffield, Earl of Mulgrave, in his 'An Essay Upon Poetry', quoted in Fowler, 1979, p.100) while love

poems, sonnets and epigrams were seen as altogether more frivolous, with Dryden criticising Tasso for being "too lyrical" and including "conceptions, points of epigram and witticisms; all of which are not only below the dignity of Heroic verse, but contrary to its nature" (1760, p.167). Just as these genres of poetry have been reorganised, separated and conflated over the ages, coalescing into the image of poetry that prevails in the present day, so is it conceivable that at some point in the future, digital-ludic poetry and poetic computer games will be regarded under the same broad category, and thereby resist negative preconceptions based on the supposed shallowness of games or antiquity of poetry.

Ensslin's rationalisation for ludic-literary hybrid artefacts and the accompanying scholarly analysis is that both are "urgently needed to grant creative writing a more contemporary, media-savvy outlook, as well as to expand and advance the artistic and critical significance of games" (p.1). I would add that these artefacts represent an opportunity to introduce both poetry and computer games to audiences not otherwise inclined to engage with them. Players of games will find that poetry may be engaged with as another kind of imaginative play, while readers of poetry will find that there is meaning and depth to be found in digital toys. The interplay of poetry and computer games is a space that, if properly established, promotes dialogue between two different groups of people. An important step toward that point is arming practitioners with tools, analysis and example texts that begin to map out the multiple forms that poem-game interplay and hybridity can take.

2. Poetry and Games as Play

Since the principle aim of this project is to examine and extend the current state of poem-game hybridity and interplay, this chapter aims to establish, by way of a review of a number of established critical texts and concepts, a conceptual and experiential overlap between poetry and computer games: a core similarity in how they may be understood to function mechanically, closely tied to the ways in which they are consumed and interacted with in everyday life. The identification of this overlap will then form the basis for the practical component of this project, where my aim is to create artefacts that follow the formal traditions of both poetry and computer games simultaneously. It will also provide firm footing from which to plot out a more precise map of the tensions that arise from placing poetry and computer games in close proximity, which I will come onto in Chapter 3.

2.1 focusses on play theory as a major theoretical and philosophical underpinning to the contemporary study of both poetry and computer games. Chronologically, play theory precedes games studies and runs in parallel to major developments in literary theory during the twentieth century. It informs games studies to such a degree, in fact, that it is difficult to discuss scholarship in this area without reference to ideas first introduced by play theorists.

Following the discussion of play theory, 2.2 examines how this informs and intersects with concepts in poetry criticism, in particular parallelism and segmentivity. 2.3 does the same but with regard to concepts in games studies, such as simulation and cybertext. Finally, 2.4 draws conclusions as to how play theory forms a bridge between these various concepts. Throughout the examination of poetry and computer games, I have in mind Keogh's observation (p.6) that the ways in which computer game genres have continued to proliferate, expand and evolve has played havoc with previously drawn theoretical boundaries around games and gaming. The same holds true for poetry. The postmodern poetic practice that Perloff outlines, as well as other poetic forms which exist in abundance today, would fall

outside the ways in which previous generations conceived of the medium. Even those previous generations were aware of the limitations of simple edicts, as summarised succinctly by the American poet Edgar Lee Masters when he said that "No definition of poetry has ever been made which would not exclude poems of confessed greatness; and many of the definitions include compositions which do not make the poetical appeal" (1915, p. 306). For current purposes, then, I will avoid subscribing to overly prescriptive accounts of either poetry or computer games. Hybridity and interplay is more likely to emerge at the periphery of each medium, where these definitions are of least use.

2.1. Play Theory

Play is a central concept in games studies, underscoring the relationship between the artefact and the user. We do not *read* or *watch* computer games; we play them, or we watch other people play them. The user of a game is a player. Playability is held to be the central desirable feature of a game (González-Sánchez et al, 2009), more than mere usability, more than aesthetic or semantic content.

The centrality of play is not so evident in literary criticism, where the consumer of a text is conceived of as taking the more passive role of a reader or listener. It has, however, found favour in recent decades. Eleanor Cook's *Against Coercion: Games Poets Play* takes as its subject poetry's "riddles, charms, fictions, punning, allusion (…) the serious games of all their indirections" (1998, p.xi), interpreting these as a form of resistance against the "inertia" (p.xiii) of language. Abigail Parry's more recent *The Polyvalent Plaything* considers play a fundamental tool of the poet, and her chapter headings marry their subjects to well-known children's games: 'Hide and Seek with Paul Muldoon', 'Tug of War: Jen Hadfield's ringpulls', and so on.

These studies arrive in the wake of a radical reconfiguration of literary theory by postmodernists and poststructuralists, who by and large rejected the idea of the passive reader and of literary virtue residing in the author, situating literariness instead in the relationship between reader and text. The world of English-language poetry has since fallen increasingly out of love with the notion of poetry as lofty intellectual pursuit, and it is now common for poetry collections to be described as playful, their authors characterised as puckish puzzlesmiths and challenge-setters.

Ensslin traces the introduction of play as a theoretical concept back to Immanuel Kant's *Critique of Judgement,* first published in 1790, where Kant used the idea of *free play* between the faculties of understanding and imagination to explain the human facility for aesthetic judgement (pp.20-22). Ensslin follows the evolution and lineage of the concept in philosophy through Friedrich Schiller's *play drive* (*Spieltrieb,* 1795), Friedrich Nietzsche's *world-play* (*Welt-Spiel*, 1908), Heidegger's idea of reality as a game of being (1927), and Wittgenstein's theories of language games (1958). Play has also been discussed within the field of psychology by Tina Hyder, among others – one can trace a path from Moritz Lazarus' relaxation theory (1883) and G. Stanley Hall's recapitulation theory (1906) up to Freud's highly influential psychoanalytical approach to play as catharsis in the 1920s (Hyder, 2004).

Johan Huizinga's *Homo Ludens: A Study of the Play Element in Culture*, however, published in 1938, is the first text to take play as its overriding concern, and to position it as central to the development of civilisation. Huizinga argues that play "presupposes human society" (p.1), existing before it in the form of the instinctual play witnessed in young children and animals. Examining play as social behaviour, he identifies the following characteristics: that it is a voluntary activity; that it is not "ordinary", standing "outside the immediate satisfaction of wants and appetites"; that it is circumscribed and limited, playing itself "to an end"; that it has its own rules and creates its own order; that it is not connected to material interest (p.9).

In particular, Huizinga's concept of the magic circle, of "temporary worlds within the ordinary world" (p.10), was used early on in games studies as part of the effort to define the game as an object of study, describing as it does both the world of the game and the psychological arena that the player enters in order to engage with the game – a realm that is bound both spatially and temporally. It is apt that the term originates in a short list of what Huizinga calls *play-grounds*, into which he also inserts the screen, that indispensable technological feature that seems to make the border of the digital magic circle actually tangible.[5]

Chapter 7 of *Homo Ludens* is titled 'Play and Poetry'. Here, Huizinga largely focuses on the act of writing and performing poetry as a form of play or game. Poetry is, he says, "born out of play"(p. 129), and what it does with images is "to play with them" (p.134). His examples are geographically wide-ranging, including Japanese *haikai*, which he identifies as originating from a multi-player poetry game where verses are passed between two or more poets,[6] and the question-and-answer/strophe-and-antistrophe structure of *Inga fuka* in Rana (p.122). Similarly to the way in which he itemises the different forms of play-ground, he lists the various roles and guises of poetry, as "ritual, entertainment, artistry, riddle-making, doctrine, persuasion, sorcery" (p.120) and so on, and records that the figure of the *thulr* in Norse literature, a precursor to the poet, sometimes takes the role of a seer and wise man while at other times acting as fool or jester (p.121).

By Huizinga's reckoning, then, poetry plays, and is play, and is produced by a figure who mixes play with serious intent. But is it also *played*? He does not say so directly, though he does suggest that reading poetry means following its rules and pursuing them to an end, which meets his earlier description of play. This is implied in the comparisons made between

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[5] An account of Huizinga's influence in relation to digital play media can be found in 'Homo ludens 2.0: Play, media and identity' in Frissen et al's *Playful Identities: The Ludification of Digital Media Cultures* (pp.9-50).

[6] There is a strong tradition of collaborative verse in Japan. An example of *renga* (meaning 'connected verse') can be found in the *Man'yōshū* ('Collection of 10,000 Leaves'), the oldest existing anthology of Japanese poetry. The *hokku*, the first stanza of the *renga*, was the basis for the more famous *haiku* form.

poetry and riddles at various points, but particularly toward the end of the chapter, where he uses the example of the Old Norse *kenning*: "When the poet says 'speech-thorn' for 'tongue', 'floor of the hall of winds' for 'earth', 'tree-wolf' for 'wind', etc., he is setting his hearers poetic riddles which are tacitly solved" (p.134).

It is implicit again when Huizinga notes a preference for lack of clarity in the form of the Icelandic *skald*, thereby issuing the reader a challenge – but the point is perhaps made most forcefully in the first paragraph of the chapter, where Huizinga asserts that "To understand poetry we must be capable of donning the child's soul like a magic cloak and of forsaking man's wisdom for the child's" (p.119). This metaphor closely aligns with the magic circle concept: the act of reading poetry as one that requires entering an imaginative realm, submitting to a different kind of wisdom (and, by extension, different rules), and taking the role of a child, ie. one who plays. There are two potential problems with using this as the basis for a general experiential overlap between poetry and computer games: firstly, play as envisaged here is too broad and expansive a concept; secondly, further investigation may reveal this to be a tenuous, surface-deep similarity. Both of these problems present themselves when we look at other contributions to the field.

Huizinga's account was reviewed and revised in another important text: Roger Caillois' *Man, Play and Games* (1958). Caillois offers a classification of games, or types of play, into quadrants: *agon* (games of competition), *alea* (games of chance), *mimicry* (role-playing games) and *ilinx* (games of altered perception). These forms of play, according to Caillois, can then be placed on a continuum between two extremes: *paidia*, characterised by improvisation, fantasy and turbulence; and *ludus*, characterised by arbitrary rules and conventions. Most card games, for instance, combine elements of *agon* and *alea*, and can be placed firmly toward the *ludus* end of the scale, relying as they do on tightly circumscribed behaviour within the confines of the game.

From the point of view of the reader or player, we might recognise poetry as sitting somewhere near the middle of the *paidic-ludic* continuum, being characterised by both

instability and formal constraint, while computer games, bound by their rigid programming, ought to be placed alongside card games. From the same perspective, computer games are somewhat evenly spread across all four of Caillois' quadrants, while poetry is predominantly *ilinxic*, a game of seeing things differently.[7]

The anthropologist Brian Sutton-Smith, a specialist in play theory, proposed a more extensive classification system in *The Ambiguity of Play*, which presents a further challenge to the use of play as a generalised concept linking together poetry and computer games. His seven *play rhetorics* each describe "a distinct kind of play or playfulness" as conceived of in wider culture: the rhetoric of play as progress, as fate, as power, as identity, as the imaginary, of the self (self-determination, self-control) and as frivolous (1997, p.1). These rhetorics seem at first to allow for a greater degree of intermingling between the types of play afforded by poems and games – play as the imaginary, as identity, and of the self – but they also articulate a sharp divergence. Play as progress, fate and power, and as frivolity, are strongly associated with computer games – progress in terms of beating the game or increasing one's score; fate as in the *aleatory* or randomised elements in many genres of computer game; power as in the empowering of the player with weapons, abilities and agency – but outside of poetry's long-cooled association with spellcraft and prophecy, these rhetorics are rarely applied to the reading of poems.

There also arises from these systems the question of whether *play* and *game* are interchangeable concepts. Huizinga and Caillois both approach a game as something that is played, such that where there is play, it follows that there must be a game, and vice versa. Later theorists, however, view games as a narrower subset of play. Ensslin, for example, draws on Wimsatt (1973) and Zimmerman (2004) in delineating between what she calls "games proper" from the looser category of "ludic activities" (p.27). She goes so far as to

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[7] The poem itself may be thought of as *mimetic*, a representation of something, and there may be something *aleatory* in its production method, or even *agonic*, if it has been made in the spirit of competition with other poets, but I would argue that it is atypical for a poem to involve the reader in these games, just as in theatre there is a barrier between the players and the audience.

suggest that games are in some ways antithetical to the kind of play afforded by literature, and takes issue with Elizabeth W. Bruss's 'The Game of Literature and Some Literary Games' for envisaging the author and reader as being in a relationship comparable to the one entered into by two players of a game. Ensslin argues that the play afforded by print literature is necessarily restricted to a cognitive ludicity, occurring only in the reader's mind, and therefore does not amount to gameplay "in a narrow, ludological sense" (p. 28) because it involves no physical interaction or risk-reward dynamic.

Writing three decades earlier, in 1984, when the discipline of games studies was in its pre-infancy, Chris Crawford similarly sought to distinguish games from puzzles and other non-interactive challenges, arguing that the key difference lies in the possibility of resistance to the player's actions, that a game is ever-changing while a puzzle remains static. Huizinga's comparison between poems and riddles, meanwhile, is indirectly challenged by Parry:

> In every case, the riddle contains a solution, a key word that unlocks and neutralises it. Not so the poem: its aims exceed the uncovering of a key word, and while it may pose a question, it does not invite resolution. In other words, it makes no sense to talk of a poem being 'solved', or even 'resolved'. (2015, p.137)

These well-argued distinctions cannot be ignored; they suggest that play itself operates at a very low level of magnification, and that as soon as we turn up the focus the differences in styles of game and play become all too apparent and difficult to reconcile.

Caillois and Sutton-Smith both emphasise, however, that the project of conceptualising and classifying play is necessarily uncertain. Caillois suggests that there is not just flexibility but, inevitably, slippage in his own classification system. An initially *paidic* activity gives way to the desire to invent and abide by rules as the pleasurable experience of problem-solving becomes foregrounded, while at the other end, rule-based *ludic* activities are subverted and unravelled by the instinct to play more freely. He even

claims that "obscure poetry" belongs in a list of "pure forms" of *ludus*, alongside crossword puzzles and chess problems (p.30).

Moreover, in '*Homo Ludens* revisited', an essay by Jacques Ehrmann, Caillois is criticised for having been "too categorical, to have succumbed to his own classifications, believing that he could confine play within them" (1968, p.32). Ehrmann also criticises more generally the model espoused by Huizinga and Caillois that places imagination on one hand and reality on the other, so that we contrast the realm of play to an external ordinary life and regard work and play as antithetical to one another. He takes the view instead that reality is itself another form of play-ground, one that has a volatile, dynamic relationship with the alternate realities found in both literary works and games:

> In other words, the distinguishing characteristic of reality is that it is played. Play, reality, culture are synonymous and interchangeable. Nature does not exist prior to culture … Just as culture is, in the last analysis, communication, so is play … and game. Thus, any theory of communication (or of information) implies a theory of play … and a game theory. (p.56)

For the purposes of locating an experiential overlap between poetry and computer games, this takes us too far in the other direction – it collapses the distinction between the world of a computer game and the interior reality of a poem, but also manages to encapsulate every other arena of human activity.

Ehrmann's visualisation of different play-grounds in dynamic relationship to one another is useful, though, and supported by Edward Castronova's critique of the concept of the magic circle in *Synthetic Worlds: The Business and Culture of Online Games*. Castronova dubs it an "almost-magic circle" (2005, p.161) and argues that the membrane of the game-world is necessarily porous:

Indeed it cannot be sealed completely; people are crossing it all the time in both directions, carrying their behavioural assumptions and attitudes with them. As a result, the valuation of things in cyberspace become enmeshed in the valuation of things outside cyberspace. (p.147)

Castronova is talking here specifically about the dissolution of a distinction between the "putatively virtual and the putatively real" (p.148) in the context of online multiplayer computer games, where digital items are traded outside of the game, on eBay, for real-world money and where US and Chinese courts rule on the real-world value of property within the world of the game (p.157). But the same principle functions as a criticism of all demarcations of certain games and certain kinds of play as closed systems that operate according to their own internal rules.

Sutton-Smith also forewarns about over-reliance on his rhetorics of play as discrete categories, saying that they may be instead used as a "deceptive gloss" over underlying cultural disagreements and that "play's supposed frivolity may itself be a mask for play's use in more widespread systems for denigrating the play of other groups, as has been done characteristically throughout history by those of high status against the recreations of those of lower status" (p.9).

This recalls Fowler's ever-shifting generic hierarchy. Just as love sonnets were once associated with lightness and wantonness, it may be the case that classifications of play in part reflect an interred habit of differentiating the frivolous from the serious. If so, I would suggest that a hesitance to conceive of poetry as a game in the ludological sense stems in part from the idea that literature is authoritative and instructive, performed *upon* us for our

edification, with the figure of the author (whom Ensslin casts as puppet master) looming over it.[8]

What this project requires, then, is a category of play that avoids a distinction on these grounds, and which accounts for the continuous slippage between different types of play and game, but is at the same time not so broad-brush as to describe all aspects of reality and culture. For these purposes, I now turn to look at 1960s post-structuralism in a little more detail.

Jacques Derrida's 1966 essay, 'Structure, Sign, and Play in the Discourse of the Human Sciences' used the concept of *free play* to describe both the shifting organisational centre of any structured understanding of a text and the capacity for different interpretations oriented around that centre. Play is, according to this principle, necessary for the exploration of meaning. What we call *textuality* exists only in the form of the *free play* of signifiers, where a signifier is that part of a linguistic sign that derives its meaning from the idea or concept signified. The text is a cosmos – continuously at play within itself and with all other texts.

In 'From Work to Text', Roland Barthes advances on this, describing the text as an *overcrossing*, an irreducible plurality, a woven fabric that emerges to the reader from a heterogeneous cocktail of elements:

> [T]he text itself plays (like a door, like a machine with 'play') and the reader plays twice over, playing the Text as one plays a game, looking for a practice which re-produces it, but, in order that that practice not be reduced to a passive, inner mimesis (the Text is precisely that which resists such a reduction), also playing the Text in the musical sense of the term. (1971, para 7 of 9)

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[8] It is also of note that where computer games have started to be taken more seriously in mainstream media coverage, it is linked with a resurgence in solo authorship, or *auteurship*, returning the author to his traditional puppeteer position in relation to the interaction of text and reader.

This is certainly a more precise kind of play: play as sense-making, as putting together. From this we can conceive more clearly of the parallels between a computer game and a literary text, both sitting in a state of incompletion until the reader or player takes action and moves the pieces – through mental or physical action, but only within the world of the text – toward an endpoint.

We need to limit this category further, however, to a subset of texts or a genre of literature that would include poetry, in order to locate a particular overlap between poetry and computer games. For these purposes, it is useful to turn back to Bruss, who is likely thinking of Barthes and Derrida when she says that "until recently criticism has ignored the full dimensions of the literary encounter" (1977, p.153). When Bruss discusses literary games, however, she has in mind individual works where, as she puts it, the reader is made to be "aware of the activity of reading, of the inferences and choices, predictions and retractions one must make" and where "praxis and strategy provide the principal meaning of the work" (p.153).

In other words, these are texts where the reader recognises the constituent threads of the textual weave and consciously manipulates them, in much the same way the player of a computer game recognises that they must *do* something with the constituent parts of the game to make it work. Ensslin criticises Bruss by saying that this must apply to every work of narrative fiction, but that does not hold true: for Bruss, a literary game is where the covert is made overt, where readerly play is made self-conscious, either by overstatement or subversion of expectations, and where the reader is invited to resist and reorganise at an intellectual level. Her examples include Borges, Nabokov and "the autodestructive paradoxes" (p.156) of Raymond Queneau, but she also makes a point of examining the mechanics of contest and cooperation in works by Plato, Faulkner and Melville so as to demonstrate that the tradition of literary games extends back through time.

Warren Motte, on the other hand, does contend that all literary texts constitute some kind of language game. His *Playtexts: Ludics in Contemporary Literature* proceeds on the basis that play is "an essential, non-negligible dimension of literature" (1995, p.27) and enjoins with Ehrmann's model of play as an economy interacting dynamically with other play economies. Considering in turn Huizinga and Caillois, as well as Ehrmann and a number of other theorists and philosophers, Motte arrives at the view that play is the single connecting feature of everything that might be termed a game, the attitude that brings a game into being. By admitting this as an account of the way the reader interacts with the text, he argues, we must also admit that play – all play – is fundamentally serious and purposeful.

Yet even here, Motte hints at a useful differential by quoting Philippe Lejeune saying of Georges Perec's writing: "There is in each of his texts a place for me, a place for me to do something" (p.41). If this is worthy of remark, then presumably it is more common for texts to leave the reader with little to nothing to do, or at least with little awareness that they are doing anything. And if there is indeed a subset of literature which is particularly game-like, or game-like in a particular way, is it possible to enclose poetry within it? There must be a reason for Huizinga to devote a chapter not to literature and play but to *poetry* and play, and for Caillois to place certain kinds of poems in the same category as chess problems.

2.3. The Play of Poetry

In his *Poetics*, Aristotle responds to Plato's condemnation of poets as insidious falsifiers; he characterises lyric poetry as an imitative form combining rhythm, language and harmony, the overall purpose of which is to accurately represent human endeavours. Much later, in the early seventeenth century, Thomas Campion set out to demonstrate, in *Observations in the Art of English Poesie*, that poetry is "the chiefe beginner and maintayner of eloquence, not only helping the eare with the acquaintance of sweet numbers, but also raysing the mind to a more high and lofty conceite" (para 1 of 44). It achieves this due to being made by "Simmetry

and proportion" (para 1 of 44), just as music is, and just as the world is, in Campion's reckoning.

Later still come the very famous definitions by William Wordsworth ("Poetry is the spontaneous overflow of powerful feelings: it takes its origin from emotion recollected in tranquillity") and Samuel Taylor Coleridge ("the best words in the best order", as quoted in Henry Nelson Coleridge's *Specimens of the Table Talk of the Late Samuel Taylor Coleridge*), both in the nineteenth century. And in 1944, in his *Introduction to* The Wedge, William Carlos Williams wrote:

> A poem is a small (or large) machine made of words … As in all machines its movement is intrinsic, undulant, a physical more than a literary character. In a poem this movement is distinguished in each case by the character of the speech from which it arises. (para 9 of 15)

I choose to highlight these because between them, they account for much of the popular understanding of poetry's place and purpose, while also appearing to contradict and talk over one another. It is difficult to imagine an alien, faced with this array of descriptions, being able to discern that Aristotle, Campion and Williams are all talking about the same thing.

This functional and formal instability is tentatively embraced by present-day practitioners and those who think deeply about the medium, although there are periodic resurgences in strict adherence to Wordsworth's spontaneous overflow or Aristotle's stipulation of accuracy. Perloff chronicles two periods in twentieth-century English-language poetry – the period dominated by the modernism of Eliot and Pound, and the counterculture of the 1960s – when the doctrine of natural or common speech came to the fore, where poets would aim for a direct channel to some or other sensibility, rendered in plain language, so that the poem was as near as possible to communing with a thinking and feeling person.

Perloff convincingly analyses the results as "simulation" of the natural, increasingly prone to borrowing their effects from televisual media (pp.29-40).

As it has become harder to sustain a belief in literary naturality, or in language that speaks to a universal condition, the public attitude toward poetry has turned toward gentle bewilderment, while poets themselves have made a game out of redefining the art. Pithy or easy explanations tend to be rejected – major poets instead write entire books that recast the poem in new light (Maxwell, 2012; Paterson, 2018), while newcomers are routinely prompted in interviews to articulate their own definition.

Let us suppose that this in itself speaks to something fundamental about poetry's character, that its reason for being is malleable, ambiguous, even provocatively unforthcoming, in a way that paradoxically speaks to its value, as expressed by Wislawa Szymborska:

> Poetry –
>
> but what is poetry anyway?
>
> More than one rickety answer
>
> has tumbled since that question first was raised.
>
> But I just keep on not knowing, and I cling to that
>
> like a redemptive handrail. (Szymborska, 'Some People Like Poetry' 14-19)

Ben Lerner's *The Hatred of Poetry* goes so far as to make the claim that poems inevitably fall short of an ideal that is encapsulated in the term *poetry*. As Lerner puts it: "The fatal problem with poetry: poems." (2016, p.32) Then, more comprehensively:

> 'Poetry' becomes a word for an outside that poems cannot bring about, but can make
>
> felt, albeit as an absence, albeit through embarrassment. The periodic denunciations

of contemporary poetry should therefore be understood as part of the bitter logic of poetry, not as its repudiation. (pp.73-74)

Lerner goes on to cite examples of John Keats, Elizabeth Bishop and others who gesture, through their poetry, at a house of possibility (Bishop) or unheard sweeter melodies (Keats) that represent a plane of achievement to which the poem itself cannot rise. The idea, then, is to continuously, keenly remind the reader of this plane – raising their mind to a more high and lofty conceit, perhaps – whereupon they come to enjoy the poem for its human-like inadequacy.

In the wider context of twentieth century literary theory, Lerner's essay may be regarded as the end of a line of progression that gradually deconstructs the traditional notion of a poem as a communique from author to reader. In the 1940s, the New Criticism movement promoted the study of the poem as a self-contained object where form and content are united in purpose. In a pair of famous essays, 'The Intentional Fallacy' and 'The Affective Fallacy', New Critics William K. Wimsatt and Monroe Beardsley argued for the irrelevance of both authorial intent and any emotive reaction on the part of the reader, and that instead, the truest interpretation of the text is to be arrived at through the technique of close reading: careful, objective scrutiny of its constituent devices, taking the machine apart to understand how it works and what exactly it does.

Later, the school of reader-response criticism that developed in the 1960s and 70s alongside poststructuralism emphasised the role of the audience in the creation of meaning. Reception theory – an approach developed first by Hans-Robert Jauss, then by cultural theorist Stuart Hall – privileges the individual reader, whose personal experience and frame of reference, it was argued, are an inevitable and necessary component in decoding the text. In ludic terms, the New Critics looked at the poem as a puzzle-box with a limited and fixed number of solutions, while proponents of reception theory saw it as an open-ended game with the reader that could lead to any number of outcomes. Lerner takes this multiplying of

possibilities to its extreme: there is no ending at all – the poem merely tantalises with the promise of closure.

For the purposes of locating the overlap between poetry and computer games, I intend to put forward a way of understanding the workings of poetry that largely aligns with the approach outlined by Jauss and Hall, but it is worth starting with Lerner and the problem of contradictory definitions as a way of establishing that the playful ambiguity that characterises poetry extends all the way to its overall purpose, to the point where it can be declared a failed medium by one of its more successful contemporary practitioners, not out of any sense of despair but by way of delight in the paradox. My aim now is to draw together a number of concepts advanced by poetry critics and theorists in order to arrive at a conceptualisation that takes account of this instability, because in such instability there is an implicit invitation extended to the reader to apply themselves to the poem as they would a game.

Lewis Turco's second handbook of poetics, *The New Book of Forms*, while arriving long after the heyday of the New Critics, is a manual very much indebted to their movement. Turco calls poetry "the art of language", a mode of writing where the focus is on language itself. Poetry may do any of the things that other genres of writing do – tell a story, report or misreport, employ theatrical techniques or persuasive rhetoric – but the poet concentrates upon language "in the same way a musician concentrates upon sound, the painter upon form, or the dancer upon movement" (1986, p.4).

Turco's argument is most useful for the way he separates out the elements of language into four levels: the typographical, the sonic, the sensory, and the ideational. The poem achieves its final effect, says Turco, only through successfully fusing these elements. Briefly, then, the typographical level is the visual arrangement of the poem – its layout, its symmetry, its shape. The sonic level is its sounds and sound-patterns, including rhythm and rhyme. The sensory level is its descriptive power, both directly and through the devices of metaphor and simile. Finally, the ideational level is its various schemas (Turco's term): effects generated by patterning and playing with conventional linguistic constructions.

For each of these, Turco compiles an extensive list of techniques: the tools used in the construction of a poem's machinery. Notably, three of the levels (typographical, sonic and ideational) might be said to engage with what William Carlos Williams calls the *physical character* of a poem, while the sensory level alone deals with the literary. Of the three, the typographical level is the most physical of all, since it can be grasped most easily by a reader with no understanding of the language in which the poem is written.

Lastly, Turco provides a useful distinction between poetry and verse: verse, he says, is a mode, its opposite being prose, but poetry is a *genre* and can be written in either mode. There is no stipulation that a poem be written in metered language, only that it have language as its focus and produce its effects through a synthesis of language's four levels.

A more general theory of a poetic function in language is put forward by Roman Jakobson in his 'Closing Statement: Linguistics and Poetics', published in *Style and Language*. Jakobson aims to demonstrate that it is within the competence of linguists like himself to understand and explain poetics; in other words, that poetry can be accurately modelled theoretically. The poetic function, according to Jakobson, is one of six distinct functions of language, and its focus is on "the message for its own sake", the artifice of the text itself. Jakobson warns, however, that the poetic function cannot be studied in isolation:

> Any attempt to reduce the sphere of poetic function to poetry or to confine poetry to poetic function would be a delusive oversimplification. Poetic function is not the sole function of verbal art but only its dominant, determining function, whereas in all other verbal activities it acts as a subsidiary, accessory constituent. (1960, p.356)

In poetry, the poetic function is at the fore; in all other kinds of language it is a secondary or tertiary function. So when, for example, the slogan 'Ships & Sea … Time & Tide … Wind & Weather … Stars & Skies' appears on a carrier bag branded with the name of the shop (Nauticalia), the pleasing symmetry of the construction – its division into four alliterative

pairings of equivalent metrical character – is understood as a way of making the brand more appealing. The dominant function is to transmit an advertising message about the nautical themes of the shop, and the poetic function helps to boost that message. In a more ambiguous context – say, if the same text were published in the pages of an anthology of literary fragments, or written on the wall of a toilet stall – the poetic function is no longer subservient to another purpose in any obvious way. We are therefore likely to recognise it as poetry.

In explaining the nature of the poetic function in more detail, Jakobson fixes on parallelism, or equivalence, as the necessary element – the proximity of two or more linguistic *units* of a similar character, such that we are able to intuit a connection between them beyond the sequential logic of grammar or narrative:

> In poetry not only the phonological sequence but in the same way any sequence of semantic units strives to build an equation. Similarity superimposed on contiguity imparts to poetry its throughgoing symbolic, multiplex, polysemantic essence …
> (p.370)

The equation is the important metaphor here: an arrangement of two or more expressions that are the equal of one another. Jakobson's key summarising sentence is that "The poetic function projects the principle of equivalence from the axis of selection into the axis of combination" (p.358). Recalling Turco's four levels, particularly the three I equated with poetry's physical character, what Jakobson is describing here is the effect of organising linguistic units so as to build patterns of harmony and contrast between them. These linguistic units may be as small as letters, or as large as conventional grammatical constructions, or even larger.

One of the ways these patterns can be used is in building an expectation in the reader that can thereafter be satisfied or defied, provoking different emotional reactions. When a pattern is established – say, a metrical pattern repeated from line to line – its continuation or

completion produces a sense of satisfaction. A typical heroic couplet can be neatly divided into equal portions, like a cake, and the rhyming words at the end of its lines form a question-and-answer-like construction, giving the whole form a mathematical symmetry.

On the other hand, the failure to fulfil the promise of the pattern produces a dissonance, which may invoke the sense of a missed step, such as in the penultimate line of each stanza of Philip Larkin's 'Aubade', where it manifests as an absence, a troubled pause, before the conclusion of the thought:

> Unresting death, a whole day nearer now,
>
> Making all thought impossible but how
>
> And where and when I shall myself die.
>
> Arid interrogation: yet the dread
>
> Of dying, and being dead,
>
> Flashes afresh to hold and horrify. (Larkin, 'Aubade' 5-10)

Jakobson cites Gerard Manley Hopkins saying that poetry, in effect, "reduces itself to the principle of parallelism" (p.368), establishing a continuum between form and content, such that the sonic or visual equation is deeply suggestive of a semantic equation. In other words, cohesion of physical form inspires faith in the poem's content; if it looks and sounds right, it must *mean* right.

In the citation, Hopkins then extends the principle of parallelism to cover what Turco would call the sensory level:

> [T]he more marked parallelism in structure whether of elaboration or of emphasis
>
> begets more marked parallelism in the words and sense … where the effect is sought
>
> in likeness of things, and antithesis, contrast, and so on, where it is sought in
>
> unlikeness. (p. 368)

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Poetic equations are not only of physical character, then, but also of literary character, with metaphor being the primary engine. One thing stands for, or speaks of, an equivalent. Putting together Jakobson and Turco, we arrive at a picture of poetry as a series of parallels and equivalents extending across and between the aesthetic and semantic dimensions of the text, these acting in concert as its dominant characteristic.

But how does this induce in the reader an attitude of play, in any sense beyond the kind of play envisaged by poststructuralism, which just as easily applies to a novel or newspaper article? I would suggest the answer is to be found in part in Philip Wheelwright's elegant elucidation of what he calls *tensive language*. Wheelwright's concern expands beyond poetry, to the role of language in engaging with and seeking to represent reality, which he says is both perspectival and coalescent – a negotiation between the particular and the universal (1962, pp.164-173). Tensive language is language that aims to be dynamic and alive in the same way as reality, to reflect the ongoing struggle between opposing forces that characterises organic life. Language that "strives toward adequacy", says Wheelwright, "as opposed to signs and words of practical intent or of mere habit, is characteristically tensive to some degree and in some manner or other" (p.46) – that is, deployed in combinations that contain inherent tensions and conflicts:

> Where language in the more specific sense is in question – ie. language as consisting of words and some kind of intelligible syntax – the problem becomes that of finding suitable word-combinations to represent some aspect or other of the pervasive living tension. This, when conscious, is the basis of poetry. (pp.47-48)

More than mere equivalence, it is this replication of tension that results in the *polysemantic essence* of poetry. Each of Turco's levels multiplies the possibilities for meaningful tension

between units, which is the means by which the author can move beyond the constraints of merely descriptive language.

For the reader, this tension promotes ambiguity, which for Jakobson is "an intrinsic, inalienable character of any self-focussed message, briefly a corollary feature of poetry" (p.370-71). Wheelwright prefers the term *open language* so as not to imply looseness or vagueness, saying that poetic language, "by reason of its openness, tends towards semantic plenitude … doubleness of meaning … interplay of meanings and half-meanings … plurisignation" (p.57). Tension challenges the reader to resolve it, though not necessarily in so simple a fashion as discounting one possibility in favour of another – the significance of the work may instead found in its very doubleness of meaning. Perhaps the most famous example of this is line 11 of Shelley's *Ozymandias* – "Look on my works, ye Mighty, and despair!" – words on a broken pedestal which simultaneously refer to the power and expanse of Ozymandias' empire at the time his statue was built, and also to the empty desert that remains long after its destruction. The import lies not in either literal interpretation, but in the ironic contrast between the two.

The New Critics would say that semantic plenitude is always deployed to precise effect, as in the example above, and William Empson's 1930 work, *Seven Types of Ambiguity*, is the landmark example of an attempt to categorise these effects so that they may be understood as being enclosed within the text itself. However, for later critics of the reception theory school, ambiguity results in boundless depth, with multiple tensions across multiple levels of language leading to an inextinguishable restlessness and scope for continual reinterpretation. Novelist and semiotician Umberto Eco identifies this as a defining feature of poetry in *Postscript to the Name of the Rose*, where he writes that the "poetic effect" is "the capacity that a text displays for continuing to generate different readings, without ever being completely consumed" (1984, p.545). Rather than the text being designed with these infinite readings impossibly nestled within it, it must be assumed that readers

supply them, with the author's role being to provide a suitably complex and compelling textual system for the reader's imagination to engage with.

The sentiment is echoed in Parry's characterisation of the poem as a riddle without a key, a form that raises questions without permitting itself to be neutralised with answers. It also goes some way to explaining why the very act of defining poetry is played out as a game with no ending, and how Lerner arrives at the conclusion that the poem is constantly gesturing toward a state of completion that it never attains: indeterminacy by way of multi-layered tensive complexity has become the most recognisable trait of poetry. It is what makes poetic language *alive*, in Wheelwright's terminology, what makes Williams' machine seem as if it is moving. It may even be that aspect of poetry that most consistently raises the mind to a more high and lofty conceit. But it requires the reader to actively play with the text, to play with *and* through it, in order to discover that boundlessness, that resistance to neutralisation. If we think of the poem as a kind of generator of meaning and effects, with the reader as operator, as living component, then what the reader finds is that they can produce one meaning if they read part of it one way, another if they examine that same part again, and so on. The poem is *re*-playable, and demands to be replayed, to be treated as dynamic system rather than a single-use organised delivery mechanism.

This is not dissimilar to how we conceive of the relationship between a player and a computer game, and we can make that similarity more apparent by considering the play of the poetry reader in terms of spatial navigation, to which end I would like to consider one last critical concept: segmentivity. As noted in the previous chapter, this is a term coined by the poet and critic Rachel Blau DuPlessis and explored by literary theorist Brian McHale in multiple papers concerning the relationship between narrativity and poetics. McHale writes that narrativity is the *dominant*, the chief organising principle, of narrative forms, but that in the case of narrative poetry such narrativity is subservient to a different organising principle, the one that defines poetry (2010, p.28). That organising principle is segmentivity, "the

ability to articulate and make meaning by selecting, deploying, and combining segments" (ibid).

McHale expands on the concept in a way that draws together elements of Wheelwright's, Jakobson's and Turco's approaches. He writes that "segments of one kind or scale may be played off against segments of another kind" (p.29). Then, taking from another poet-critic, John Shoptaw, the terms *measure* and *countermeasure*, McHale describes how the meaning of a poem is generated by counterpointing one layer of segmentation against another: *line* against *sentence*, say, or *phrase* against *stanza*. He then describes the reader's role in this process: the gaps opened up by counterpointed measure and countermeasure constitute "provocations" and it is the reader whose "meaning-making apparatus must *gear up* to overcome the resistance, bridge the gap and close the breech" (ibid).

Provocation and *resistance* are significant terms here, and so is the idea of physical gaps existing in space which the reader must bridge. In literature dominated by narrativity there is an emulation of a conventional or naturalistic order, an attempt to convince the reader that they are a passive observer of something which is being merely transmitted by the text. So far as there is provocation, it is via the hypothetical, asking: what if the events narrated were real? But when the dominant is segmentivity, the various layers of the textual weave are brought into focus as if through a microscope, resisting easy assimilation, de-automating the process of meaning-making. The provocation is as to the nature of any hypothetical, asking: what *is* real, what is being described? The poem's multi-dimensionally segmented character, its hyper-artificiality, accentuates its physical character, so that the reader must move around and between segments (line, sentence, phrase, stanza) and dimensions (typographic, sonic, sensory, ideational), experimenting with perspectives in order to squeeze meaning from the poem. They move their eyes back and forth, side to side, across the text, focusing on smaller or large components of the poem's shape, moving lips and vocal chords to test sounds, switching between their literal vision and their mind's eye as the poem deploys both typographical patterning and imagery, following where a metaphor points, closing gaps,

filling in blanks. The poem can be thought of as a kind of a game board, a site of reader activity, rather than something the reader looks *through* in order to see what the text purports to represent.

This accentuation of the physical means that poetry extends beyond the written or spoken word to touch upon the space occupied by visual art, and numerous experimental poets and artists have capitalised accordingly: Max Ernst's 'visible poems', for example, published in 1934 as part of his *Une Semaine de Bonté* sequence, are collaged and recontextualised pieces taken from woodcut illustrations. More recently, Matthew Welton's sequence 'Six poems by themselves', from *We needed coffee but ...* (Carcanet, 2009), consists solely of space and black lines.

Concrete poetry, which had its heyday in the UK in the 1960s and 70s, emphasises the typographic and visual arrangement of the poem above all else; examples compiled in John Sharkey's *Mindplay: An Anthology of British Concrete Poetry* (1971) include poems made by drawing over existing manuscript pages, words rendered as bricks in the outer wall of a building and an untitled piece by John Furnival that resembles both a puzzle and a game board.
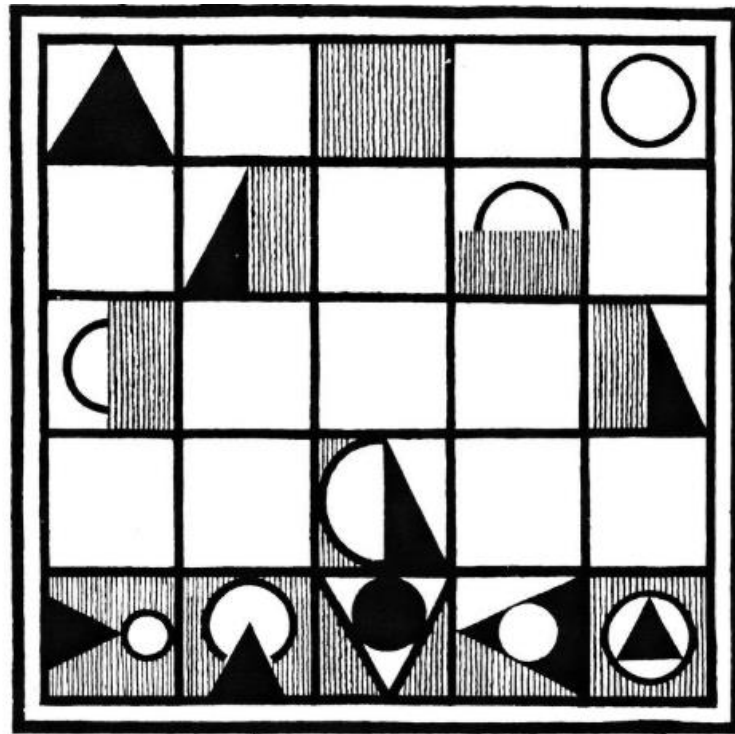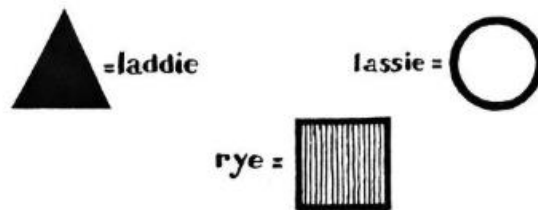
Figure 1. 'Untitled' by John Furnival (1965), reproduced from Mindplay: An Anthology of British Concrete Poetry.

Asemic poetry, with its roots in Chinese calligraphy, is a subgenre of poetry made out of glyphs or marks that somewhat resemble letters, but which lack the sensory or sonic dimension altogether. Orally performed sound poetry, similarly, draws on the formal conventions of spoken language while abandoning literary meaning, being more orderly than mere noise while structurally distinct from music. The wide ambit of parallelism, tension and segmentivity as principles of construction ensure that poetry exists, and can be discerned, wherever there is a trace of language, visually or aurally.

It also makes it difficult to conceive of a truly anti-poetic form outside of straightforward prose. As part of the restless play engendered by poetry, successive movements have sought to invert or oppose previously existing traditions, only to fall into

the trap that Lerner wittily describes when he says that avant-garde artworks remain, in spite of their efforts, artworks:

> They might redefine the borders of art, but they don't erase those borders; a bomb that never goes off, the poem remains a poem. And they hate that. The avant-garde is a military metaphor that forgets it's a metaphor. The Futurists – ghosts of future past – enter the museums they wanted to flood. (p.56-57)

In challenging existing orthodoxies, avant-gardists have tested the aforementioned principles to their limits, with deeply fractured compositions that resist sense-making to the utmost. The antipoetry movement of the mid-20th century, meanwhile, in seeking to reject the loftiness associated with conventional poetry, dialled down the degree of measure and countermeasure considerably but was forced to leave some element of it in the work so as to distinguish it from other literary forms. Similarly, the more recent Flarf poetry movement opposed poetic convention by generating poems from cobbled-together internet search results, intentionally surrendering an element of authorship. Even here, the basic aim is consistent with bringing about semantic plenitude, a provocative intermeshing of segments and dimensions that induces the reader to both explore the poem as textual maze and operate it as a machine for meaning-making.[9]

To conclude this section, then, poetry is indeed played in a way that is more particular than the way poststructuralists envisage the reader playing the text: its physical character is accentuated, its artificiality enhanced, so that the reader engages with it in the sense one might map out a physical or quasi-physical space, and the tensions created by typographical,

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[9] Clover (2009) writes: "If both [conceptual writing and flarf] are compelled by what we might term *impoetic* language, flarf seems interested in discovering the poetic within that field …"

The contradiction is resolved if we imagine that 'impoetic' here only means 'language that has not conventionally appeared in poems'. Flarf remains interested in the poetic, just as other genres of poetry are, but has chosen to seek it out in places shunned by others.

sonic, sensory and ideational parallelism and patterning require the reader to resolve its mechanisms, to actively press its components for their multiple meanings. If a text must be played, a poem must be played and *re*-played, and aspires to a state where it can never be fully played out.

2.4. The Play of Computer Games

The next stage in this chapter is to consider how computer games are defined by key texts in games studies, and to derive from that a conceptualisation that resonates with the picture we have formed of poetry in the previous section. As with poetry, the definition of computer games has been the subject of competing accounts. Veli-Matti Karhulahiti's 'Defining the Videogame' makes great play out of this uncertainty, staging the investigation as a Socratic dialogue during which definitions are ventured and undercut, before offering the conclusion that "even the most critical differences [between games and other ludic phenomena] are, in the end, rather marginal" (2015, para 170 of 182). Mainstream culture also has occasional fun with this definitional blurriness: in a 2013 television special, writer and presenter Charlie Brooker impishly asserts that the social media website Twitter is actually a computer game, "a massively multiplayer online game in which you choose an interesting avatar and then roleplay a persona loosely based on your own, attempting to accrue followers by repeatedly pressing lettered buttons to form interesting sentences" (*How Videogames Changed the World*, 2013). The point being made is that the influence of game-like systems is now deeply felt in aspects of the putative real world, but the joke rests on the lack of an easy distinction between computer games and other forms of addictive digital-interactive media. If play is as intrinsic a part of human culture as Huizinga envisages, and if Ehrmann is right about the extent to which reality is a type of game, then what is a computer game but some aspect of cultural reality acted out in the digital realm?

Early scholars of computer games have tended to regard them as an evolution of one or other pre-existing media type, with the corollary that this makes them genetically distinct from other pre-existing media types. Crawford, for example, focusses on the *game* part of computer game when he suggests "a closed formal system that subjectively represents a subset of reality" (p.8) as a working definition, and goes on to contrast this with puzzles, stories and toys. With the benefit of the intervening thirty-odd years, we can point to dozens of puzzle games, interactive fictions and *Lego*-style construction set computer games that render any definition based on these distinctions inadequate.

Espen Aarseth's *Cybertext*, a milestone in demarcating games studies as a discipline, provides the term "ergodic literature" (1997, p.1), a concept that encloses computer games as well as other genres of digital and non-digital literature. For Aarseth, computer technology has enabled the expansion of a previously niche literary genre, with notable pre-digital cybertexts including Apollinaire's calligrams and Raymond Queneau's *Cent mille milliards de poèmes* – works which are not intended to be read in a straightforward, start-to-finish manner. The decisive feature of cybertext is nonlinearity of design and structure; the reader, in being made to choose one of multiple paths through the text, becomes conscious of paths not taken. Aarseth's striking metaphor for this is the multicursal labyrinth.

In a later essay, 'Genre Trouble', Aarseth argues that computer games are in fact the successors to table-top games and other rule-based systems. "Games are games," he says. "Games are not 'textual' or at least not, primarily, textual: where is the text in chess?" (2004, p.46) They are self-contained, with an internal value system "determined unambivalently by the rules" (p.47). The context here is, as Aarseth viewed it at the time of writing, a war of ownership: theorists from a literary and film studies background threatened to overwhelm the fledgling discipline of games studies with critical perspectives imported from other disciplines, and therefore the case needed to be made that "games are games", not stories. This is often characterised as a conflict between ludologists (of which Aarseth is one) and narratologists, although that dichotomy has long since dissolved.

The key work on the narratology side of the debate was *Hamlet on the Holodeck* (1997) by Janet Murray, which envisions computer games as constituting the beginnings of a revolution in narrative literature, so far comprising early experiments that awaken desires they cannot fulfil. Murray predicts that in future digital narratives "the associational wilderness will give way to the portrayal of more complex processes" (p.51) of the kind we expect from great literature, but in order for this to come about the technology needs to be placed "as firmly as possible in the hands of the storytellers" (p.284). In resisting Murray's approach, Aarseth bluntly disavows those elements of computer games that we would recognise as narrative or cinematic devices, saying of Lara Croft, the protagonist of the *Tomb Raider* franchise: "When I play, I don't even see her body, but see through it and past it" (p.46).

James Newman proposes a compromise in 'The Myth of the Ergodic Videogame' by calling games "highly segmented experiences" (2002, para 1 of 37): a mixture of ergodic and non-ergodic sections that require the player to move along an experiential continuum, inhabiting the game world and directing the course of events to differing degrees as the game switches between modes, limiting or expanding their options. Newman proposes two states of engagement with a computer game, *On-Line* and *Off-Line*, corresponding respectively to whether one is ergodically involved with the game or merely absorbed in it (ie. providing no or minimal physical input) (para 9 of 37).

Alan Kay and Adele Goldberg's description of the computer as a "metamedium" (1977, p.394) is applicable here; Kay later expanded on it in the following terms: "a medium that can dynamically simulate the details of any other medium, including media that cannot exist physically" (1984, p.59). If the computer game is an expression of the multi-simulatory powers of the computer, then it can act as an expansion of both storytelling and rules-based systems alternately, or even at the same time. In the years since Aarseth's and Murray's differing emphases, therefore, computer games have proven them both right, becoming advanced augmented stories as well as complex ludic systems; in other words, hybrids.

In order to uncover a resonance with poetry, though, we need to conceive of the computer game as something more than an expression of the powers of a computer, more than a mere computer programme. There must be something that differentiates gameplay from using an internet browser, even when that gameplay consists merely of clicking the mouse and making decisions about what the computer does next. For many theorists and developers, that difference is the element of resistance, or defiance. Game designer Bennett Foddy, for example, in a blog post titled 'Eleven Flavours of Frustration', describes a number of different ways in which computer games vex their players, confidently asserting:

> A game that is completely devoid of frustration is likely to be a game without friction, without disobedience. Games that are perfectly obedient are mere software. (2017, para 1 of 13)

Aarseth likewise stipulates that ergodic literature is literature that must be tested to be consumed, and that the business of playing a game revolves around a single dominant dynamic: aporia and epiphany, problem and solution, cyclically implemented.

Jesper Juul's *The Art of Failure* goes so far as to tether computer games to what Juul calls "the paradox of failure" (2013, p.2): that we do not like to fail but nevertheless seek experiences in which we are bound to fail, to fulfil a more deeply interred desire for self-improvement. According to this thinking, computer games have evolved around that desire, to convince us that we are constantly improving, and it is the sophisticated multimedial ways in which they induce us into cycles of frustration and triumph that define them as a medium. Juul concludes by characterising them as "a shiny surface of harmlessness [that] creates a space where we can struggle with our failure and our flaws" (p.124). Patrick Crogan's (2011) historical study of the emergence of computer games from military techno-science also lends weight to this characterisation: systems and interfaces that began as training software for soldiers, or simulatory technology to aid in the anticipation of attack and response, have been

successfully adopted by the entertainment industry and presentationally softened, but have their roots in the "logistical principle" (p.78) of preparing for war.

Poetry also offers an element of resistance, an incitement to overcome, as explored in the previous section, but this does not yet constitute a sufficiently compelling overlap; the bridging of gaps that the reader must undertake in reading a poem is a way of generating meaning and pleasure, but it is disconnected from the drive toward self-improvement. That is, one does not strive to become *good* at reading a particular poem, only to understand it. For our conceptualisation of computer games, then, we need a slightly different point of focus.

As it happens, there is a bigger problem with overreliance on the concept of resistance: more and more modern computer games downplay or de-centralise this dynamic in favour of emphasising enjoyable immersion in an environment. For example, in the critically acclaimed *Oxenfree* (Night School Studio, 2016), the player, in the role of teenager Alex, encounters a series of mysterious events that they must resolve by moving around an island and engaging in conversations with other characters. Although their choices subtly alter the direction of the story, there is no way for them to fail or die, and there are no puzzles to waylay them beyond the simple exercise of moving to a particular location and interacting with a particular device. The game is all but averse to frustrating the player; its interactivity is instead designed to cybernetically bind them to Alex, to have them regard her story as their story. In terms of Caillois' category system, *Oxenfree* is more paidic than ludic, with no complex mechanics to be mastered and only basic rules to discern, while at the same time producing strange, dreamlike images, scenery, sounds and events. It is also firmly in the mimicry rather than the agon quadrant. It is a game where the player acts out a role in a story, with no right or wrong ending, not a game where anything is beaten or skilfully overcome. You can finish it, in fact, without even answering or talking to another character.

A more fitting account of this kind of experience can be found in Gonzalo Frasca's (2001) counterpointing of representational and simulational media. Frasca argues that

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whereas the former reproduces past events, simulational media such as computer games are fundamentally future-facing, dealing in possibilities. A simulation models the features of a system, rather than the output of that system, so while a game like *Oxenfree* may look like a kind of narrative, its narrative import is more akin to a cake being produced by an oven, where the oven is the player-and-game assemblage. From the player's perspective, therefore, simulatory media offers a first-hand experience of an evolving or emergent situation.

Newman's observations on the different modes in which one can play a computer game add up to a similar picture, of participation in a weave of processes, some more ergodic than others, that ultimately produce some form of resolution or outcome. Newman also notes that there is room for other, secondary players to act in a co-pilot or navigator capacity (para 13 of 37) even when they are not touching the controls, and that as the degree of immersion increases, player avatars tend to dissolve into sets of options and abilities, defined by what they are able to *do* rather than who they are (para 29 of 37). The degree to which player participation is circumscribed and directed by both game and game developer is a matter that then leads to slightly divergent theoretical priorities: where the player is regarded chiefly as enacting a pre-planned series of actions, the computer game can in turn be viewed as an expressive text, able to make criticisms and observations of culture just as powerfully as traditional representational media. Ian Bogost's (2007) concept of procedural rhetoric, for instance, describes game designers building arguments through process, so that the player has a message, or a story, or a set of values acted out upon and through them.

On the other hand, Miguel Sicart attacks Bogost's proceduralism as "a determinist, perhaps even totalitarian approach to play; an approach that defines the action prior to its existence, and denies the importance of anything that was not determined before the act of play, in the system design of the game" (2010, para 45 of 84), with Sicart preferring to conceive of the play of computer games as messy and personal, and suggesting that the very concept of gameplay stands in contradiction to that of authorship. Any message, he says, ought to emerge from a "conversation" (para 84 of 84) between player and designer mediated

by the computer game interface. Flanagan similarly prescribes "the shifting of authority and power relations toward a nonhierarchical, participatory exchange" (p.256) in her argument toward a critical gameplay design that reflects and disrupts existing social reality.

Together, these perspectives provide us with a conceptualisation that resonates with that of poetry in the previous section. We can see in Sicart's formulation an echo of reader response theory: the reader, or player, supplies their part of the meaning, with the intermeshing segments of the text or game acting as a series of provocations. At the same time, the concept of procedural rhetoric in simulatory media has a relationship with Wheelwright's tensive language and Blau Du Plessis' segmentivity: all three suggest a web of interrelated, contrapuntally arranged components that find their combined expression when the reader or player entangles themselves, closing gaps and pressing toward resolution. In a section of his book titled 'Locating the Videogame Text', Keogh concludes that the textuality of computer games resides in the player-game amalgamation: "Videogames are more than virtual content; they are embodied and materially instantiated by the player" (p.43). So too are poems embodied and materially instantiated by the reader's engagement with their physical characteristics and sensory implications. It is this account of computer games, then, that best suits this project: as a highly segmented medium, with structural relationships to stories, traditional games and other media, that produces meaning and outcome only when inhabited by the ergodic agency of the player.

2.5. Conclusions

I have sought in this chapter to establish and articulate an experiential and conceptual overlap, or resonance, between poetry and computer games, by way of play theory, as a theoretical basis for further experimentation with and analysis of poem-game hybridity. Play theory provides us with ways of delineating between different types of play and game, as

well as locating meaningful parallels between different areas of human activity. In particular, poststructuralist analysis describes literary texts in terms of play: the free play or interplay of textual components, which the reader then plays as one plays out a game or a piece of music. *Interplay* here, as well as in this project's title, implies that the relationship is not settled – is dynamic – and so too are computer games described as dynamic systems operated by the figure of the player.

There is a still deeper mirroring between computer games and poetry, with regard to two prominent parallels: the sense in which each demands not just to be played but *re*-played, in order for its depth to be experienced, and the extent to which each projects itself as a physical space to be navigated. In both cases, this is the result of tensively arranged components, layers and dimensions – in other words, design that foregrounds interplay of components. In the case of poetry, the physical characteristics of the poem – its typographic and sonic dimensions in particular – are emphasised through parallelism and segmentivity, so that the reader must engage with these in concert with the sensory dimension, looking *at* and *through* the poem, to derive meaning. It is, in a very real sense, a system that must be tested (repeatedly) to be consumed, and in which the reader is an active component, both as the body which apprehends the shapes and sounds, and as the mind which overcomes the poem's resistance, alighting on first one meaning, then another, albeit often in quick succession.

Computer games, similarly, model the complexity of other, tension-riddled systems as a space that encloses the player, and provide the player agency within that model – via physical controls primarily, but really, as Newman points out, across a spectrum of embodiment – to pursue certain outcomes. The computer game is experienced via playing and re-playing, and as a play-ground with a porous boundary that is corporeally inhabited. As with poetry, this relationship between player and game goes beyond enabling frivolity, producing meaning and facilitating authorial expression.

Such an overlap allows us to conceive of aspects of poetry and computer games in terms of the other – a useful position to be in when exploring hybridity. The lines or stanzas of a poem, say, can be thought of as formally related to the walls, platforms or interactive objects in a computer game level, while the double meaning of any word or phrase is the equivalent of a forked path, the reader's encounter with it echoing the player's decision to have their avatar move in one direction or another (and then stepping back to take the other option). The world of the computer game maps on to the world of a poem, even though they are initiated through different player interfaces. Having established this, I can now experiment with combining those interfaces, and working toward a more detailed picture of the ways they complement and repel one another.

Interlude 1

At this point in the project, I direct the reader to the introduction and first four pages of the accompanying website, situated at www.gojonstonego.com/dual-wield/, which collect together my early experiments in poem-game hybrids and provide commentary on the process and outcomes.

3. Medium Difficulty

[REDACTED]

4. A Taxonomy of Poem-Game Interplay

[REDACTED]

Interlude 2

At this point in the project, I direct the reader to the website at www.gojonstonego.com/dual-wield/ and pages 5 onward.

5. Concluding Remarks

The overall aim of this project has been to theorise, test and evaluate the viability of poem-game interplay, to investigate the ways poetry and computer games may complement or augment one another and the tensions or clashes that arise from proximity and hybridisation, in order to expand the scope of each as an expressive medium. To this end, I have identified, in Chapter 2, a conceptual and experiential overlap based on an understanding of the reader or player as a self-conscious participant in a generative textual system. I have used this as the basis for a wide-ranging series of attempts to hybridise poetry and gameplay, and in so doing encountered a number of ways in which compatibility issues arise. I have then, in Chapter 3, articulated these compatibility issues as three different continuums – the responsibility continuum, the negotiation-flow continuum, and the irresolution-rules continuum – which together describe the major tensions between common genres of poetry and computer game. In Chapter 4, I use these continuums as analytical tools in charting a taxonomy of poem-game interplay, consisting of four major types: poetic-ludic intertextual mutation, ludokinetic poems, poetic games and poetry games.

Finally, I have used the taxonomy and the continuums together in my practice to experiment with further variations on poetic-ludic intertextual mutation, ludokinetic poems and poetry games, expanding on the forms that previously existed. As a result of these experiments, I am able to point to some further conclusions.

5.1. Different Compositional Requirements

Through my practical experimentation, I have experienced first-hand the challenges of using even relatively simple game-making tools in conjunction with the tools and strategies of poetic composition. In my long-term experience as a poetry practitioner, poems require a great deal of rapid iteration and *moulding* of language as a material. The poet must be prepared for the poem to evolve in unexpected directions, even to change completely, or else they risk making something that is rigid and lifeless. Game development, on the other hand, requires a great deal of planning and rule-crafting. Significant deviation from the plan often requires rebuilding from the ground up. In poetry, one typically works from a state of chaotic complexity – all the possible formal and semantic implications of a poem's first few lines – toward a state of coherence. In game development, one must begin with an extremely simple, completely coherent system and advance toward a state of complexity, since the computer game will not function at all if its code is only part-complete.

In large part as a result of this, throughout the project period it did not prove possible to work out an approach that would have allowed for collaboration with visual artists and other programmers, which might have led to more polished, commercially viable artefacts. My instincts as a poet instead led me to frequently revise my plans from the top, to re-envisage the shape of any hybrid work and what form it would take on the screen. I also moved away from an initial plan of concentrating on one larger, fully complete poetry game, as it quickly became apparent that I would first need to experiment more rigorously with miniature works in order to get a sense of how such a project could be managed. I can draw no firm conclusions at this stage as to whether the differences in compositional requirements would severely limit the possibilities for larger-scale poetry games of the sort I hint at with *Erratum*. I did find, however, that the problems I encountered became easier to resolve over the period of the research, and therefore I would suggest that further research and

experimentation, as well as further advancements in game-making technologies, will make successful compositional strategies more accessible and apparent.

Most of the artefacts collected in the latter half of the website require more development. Even those which are mostly complete could stand to be polished further. This is in large part the result of my splitting my time between the different individual games and poems, but I believe such an approach was justified in terms of developing the taxonomy and being able to compare the characteristics of the different categories.

5.2. Different Playstyles

Unsurprisingly, the tensions described by Chapter 3's continuums lead to a limiting of the options available in terms of both poetic style and game development when it comes to poetry games and ludokinetic poems. The need to incorporate the player (or their ludic self) within the text, to confer upon them a sense of responsibility, necessitates a withdrawal of authorial control over poetic form, and this restricts what a poem can be used to express. In general, however this is no more onerous than the restrictions imposed by many conventional poetic forms. I would have found the compositional process easier, no doubt, if I had looked to generative poetry systems (such as those described by Lamb et al in their 2016 paper, 'A Taxonomy of Generative Poetry Techniques'), but as far as I was able I wanted to pair games with more widely established and well known forms of poetry.

Similarly, the requirement that a ludokinetic poem or poetry game be fundamentally poetic drew me away from seeking to develop the kind of mainstream gameplay mechanics that promote player mastery, based on the cycle of aporia and epiphany described by Aarseth. Such a cycle would fundamentally distract the player from other sensations, experiences or meanings that the game may hold and focus them on winning. Ted Levine, writing on anti-competitive computer game art, is among those who has made this point forcibly:

Progressing through the videogame from point A to B isn't a journey – it is a fight. While the player is able to creatively explore the virtual world that the game designers have constructed, the priority of the game moulds the player's approach to the game as a challenge to develop and perfect his or her abilities to reach the next level. Because the player is rewarded a significant amount of points for moving through the game in the "correct" manner, the player's interest in winning becomes the ultimate reason to continue. To win means reaching point B; thus, the act of getting to this point is irrelevant. (2010, para 4 of 22)

As Keogh says, this type of gameplay is only part of "a broader spectrum of experiences afforded by the embodied textuality of videogame play" (p.190), but it is also the most straightforward way to make the gameplay experience substantial, since it works by inducing a player to repeat a similar play sequence over and over. Developing a ludic system that operates differently – that delivers primarily narrative resolution, or poetic irresolution, or distributes ludic resolution more thinly – is necessarily more involved and time-consuming. Although I have had partial success in assigning meaning to repetitive player actions in the ludokinetic poems in particular, the only artefact I created as part of this project that could be described as having gameplay that invites the player to master its mechanics is *Quiver*, which also delivers its poetry in a segment separated off from the gameplay. Where I attempted to tie success in gameplay much more tightly to the poetic effect – in *Erratum* and *Skeletonware* in particular – I had to think about and craft each moment of ludic resolution. It is possible, however, to conceive of a poetry game that mixes generative poetry with a core gameplay loop more loosely, if one were to surrender a great deal of control over authorship and permit a degree of incoherence.

5.3. Different Literacies

Because of the tensions outlined in Chapter 3, poetic-ludic intertextual mutation has proved to be the most straightforward category to develop. Poems that take inspiration from games and gameplay, or rework the play material of games from a distance, circumvent the need to immediately balance developer-player co-authorship or ludic resolution with poetic irresolution by assuming the audience encounters them at a different point in time, or outside of the context of games and gameplay altogether. There is also an abundance of readymade material available in the form of existing games, which can be appropriated, altered and arranged using only the tools required for other established poetry genres.

In composing these examples, however, I was very much aware of the problem of differing literacies: an audience familiar with computer game culture, or which possesses what Keogh terms *embodied literacy*, does not necessarily at present enjoy much crossover with an audience that reads and enjoys poetry. It was necessary, therefore, for these poems to have a double life, as both poems that merely use the raw material of gameplay and game content while pursuing meaning independently of it, and poems that interact with and seek to alter the games they draw upon. By submitting them to journals and competitions without making the links to computer games explicit, I have tested the existence of that double life and found it proven in at least some cases.

Similarly, in making both ludokinetic poems and poetry games, it was necessary to consider the fact that a reader of poetry may not be familiar with complex control schemes or conventional game set-ups. This led me to prioritise simple touchscreen interfaces throughout the project, although *Erratum* can also be controlled using a gamepad or keyboard. I did not seek to account for poetic illiteracy in the same way; its edges are a great deal blurrier, and such a goal would have overburdened the project.

5.4. Differences as Strengths

It should be noted that the further tensions I describe in this conclusion have necessitated creative solutions and alternative strategies, and that this in itself demonstrates the benefit of pursuing hybridity between poems and computer games. In not being able to rely so heavily on established gameplay mechanics and ludic resolution, poem-game hybrids push gameplay into lesser explored territory – games without endings or score-keeping – which plays a part in expanding their reach as an expressive medium. In being forced to embed and implicate the reader, ludokinetic poems and poetry games likewise push the exploratory range of poetry into new areas, on top of the experiential augmentation they bring about for the reader. Czesław Miłosz's 'A Quarrel with Classicism', which is referenced by Hoagland in the essay I refer to in 3.3, describes a clash between two different organising instincts in the modern poet: the instinct toward realism, and the instinct toward form. Whichever instinct wins out, the poet is required to impose hierarchy, lest he demonstrate a "reluctance … to make a choice" (1983, p.71) and leave the reader with only scattered pieces. Emphasis on ludicity and digital-ludic compositional strategies in poetry transfer some of the responsibility for making choices over to the figure of the player, and in so doing draw out a third priority to factor in alongside the instincts toward form and realism: malleability, the capacity of the text to be rewritten. As I have found with both my 'Inventories' poems and my experiments in ludokinetic poetry, this leads to poems that attain an unfinishable state, where the normal replayability of the poem bends toward an invitation to extend and re-make. Additionally, the dynamic relationship between different ludic-poetic components – and, in some cases, the aleatory principles behind their placement – deepen the potential for distinct individual readings, complementing poetry's existing capacity for variable meaning.

Poem-game interplay and hybridity is an emerging, rapidly evolving field. Both my theoretical and practical research demonstrate that there is a deal of variety to be found in the forms it takes, and consequently a range of ways interplay can be used to develop thematic

concerns while supplementing, reshaping or adapting the pleasurable and instructive experiences already built into established poetic and ludic forms. Poets and game developers alike have the opportunity to expand their tools, technologies and strategies for expressive artistic design, and to gain access to a plethora of reconfigurable existing material, by considering interplay as an option. With this project, I have set out the conceptual basis for doing so, and supplied examples and analysis that will be of use to those who plan on extending their practice into this area.

Bibliography

Aarseth, E. J. (1997) *Cybertext*. Baltimore, Maryland: The John Hopkins University Press.

Aarseth, E. (2004) Genre Trouble: Narrativism and the Art of Simulation. In: Harrigan, P. and Wardrip-Fruin, N., eds., *First Person: New Media as Story, Performance and Game*. Cambridge, Massachusetts: MIT Press, pp.45-55.

Alfaro, M. J. M. (1996) Intertextuality: Origins and Development of the Concept. In: *Atlantis* Vol. 18, No.1/2, pp. 268-285.

Andrews, J. (2007) Videogames as Literary Devices. Available from: http://vispo.com/writings/essays/VideogamesAsLiteraryDevices.pdf [accessed 26 May 2018].

Andrews, J. (2015) Arteroids Homepage. Available from: http://vispo.com/arteroids/indexenglish.htm [accessed 26 May 2018].

Anon (2006) Level 9: Labyrinth. Available from: https://www.tombraiderchronicles.com/tr5/walkthrough/level09.html [accessed 23 August 2019]

ArenaNet (2018) The Game. Available from: https://www.guildwars2.com/en/the-game/ [accessed 25 May 2018].

Aseguinolaza, F.C. (2000) Poetry and Hypertext: The Sense of a Limit. Available from: https://liternet.bg/publish1/fcaseguinolaza/poetry-en.htm#18a [accessed 8 November 2017].

Barthes, R. (1971) From Work to Text. Translated from the French by Stephen Health. Available from: http://faculty.georgetown.edu/irvinem/theory/Barthes-FromWorktoText.html [accessed 9 November 2017].

Berry, L. (n.d.) Teaching the Art of Poetry. Available from: https://poetryschool.com/assets/uploads/2016/01/Liz-Berry-Using-Dialect-in-Poetry.pdf [accessed 25 August 2019].

Best, S. and Marcus, S. (2009) Surface Reading: An Introduction. In: *Representations* Vol. 108, No. 1 (Fall 2009), pp. 1-21.

Bodenheim, M. (2000) *Advice: A Book of Poems*, facsimile reprint. Montana: Kessinger Publishing.

Bogost, I. (2010) *Persuasive Games.* Cambridge, Massachusetts: The MIT Press.

Bogost, Ian (2009) A Slow Year. Available from: http://bogost.com/games/aslowyear/ [accessed 22 April 2019].

Boulter, J.D. and Grusin, R. (1998) *Remediation: Understanding New Media*. Cambridge, Massachusetts: The MIT Press.

Bruss, E.W. (1977) The Game of Literature and Some Literary Games. In: *New Literary History* Vol 9, No 1, pp. 153-172.

Byron (2005) *Selected Poems.* London: Penguin Classics.

Calvino, I. (1997) *Invisible Cities*, New Ed edition. Translated from the Italian by William Weaver. London: Vintage Classics.

Campion, T. (1602) *Observations in the Art of English Poesie*. Available from: http://www.bartleby.com/359/33.html [accessed 3rd March 2017].

Carmona, A. (1976) *Poemas V2: Poesia compuesta por una computadora*. Barcelona: Collección Star Books.

Carpenter, J.R (2012) The Gathering Cloud. Available from: http://luckysoap.com/thegatheringcloud/sources.html [accessed 26 June 2018].

Castronova, E. (2005) *Synthetic Worlds: The Business and Culture of Online Play*. Chicago and London: University of Chicago Press.

Clover, J. (2009) Generals and Globetrotters. Available from: http://theclaudiusapp.com/1-clover.html [accessed 27th April 2017].

Cook, E. (1998) *Against Coercion: Games Poets Play*. Palo Alto, California: Stanford University Press.

Copley, F.O. (1958) Catullus c. 4: The World of the Poem. In :*Transactions and Proceedings of the American Philological Association*, vol. 89, pp. 9-13.

Crawford, C. (1984) *The Art of Computer Game Design*. Available from: http://www.digitpress.com/library/books/book_art_of_computer_game_design.pdf. [accessed 6 November 2017].

Crogan, P. (2011) *Gameplay Mode: War, Simulation, and Technoculture*. Minneapolis: University of Minneapolis Press.

Csíkszentmihály, M. (1975) *Beyond Boredom and Anxiety: Experiencing Flow in Work and Play*. New Jersey: John Wiley & Sons.

Cummings, E.E. (1960) *Selected Poems 1923-1958*. London: Faber and Faber.

Dorn, E. (1989) *Gunslinger.* Durham and London: Duke University Press.

Douglas, Dante (2015) videodante. Available from: http://dante.cool [accessed 22 August 2019].

Dryden, J. (1760) *The Miscellaneous Works of John Dryden,* fourth volume. London: Esq, J. and R. Tonson.

Eco, Umberto (2009) *The Name of the Rose: including Postscript to the Name of the Rose.* Translated from the Italian by William Weaver. New York: First Mariner Books.

Ehrmann, J. (1968) *Homo Ludens* revisited. In: *Yale French Studies* No.41, Game, Play and Literature, pp.31-57.

Eliot, T.S. (1941) *Four Quartets*. London: Faber & Faber.

Empson, W. (1930) *Seven Types of Ambiguity*. London: Chatto & Windus.

Ensslin, A. (2014) *Literary Gaming*. Cambridge, Massachusetts, The MIT Press.

Foddy, B. (2017) Eleven Flavours of Frustration. Available from: http://www.foddy.net/2017/01/eleven-flavors-of-frustration/ [accessed 6 March 2018].

Fowler, A. (1979) Genre and the Literary Canon. In: *New Literary History* Vol. 11, No.1, Anniversary Issue: II (Autumn, 1979), pp. 97-119.

Flanagan, M. (2009) *Critical Play: Radical Game Design*. Cambridge, Massachusetts: The MIT Press.

Frasca, G. (2001) SIMULATION 101: Simulation versus Representation. Available from: http://www.ludology.org/articles/sim1/simulation101.html [accessed 21 April 2016].

Frissen, V., Lammes, S., de Lange, M, de Mul, J., Raessens, J., eds. (2016) *Playful Identities: The Ludification of Digital Media Cultures*. Amsterdam: Amsterdam University Press.

González-Sánchez, J.. Padilla-Zea, N., Vela, F.L. (2009) From Usability to Playability: Introduction to Player-Centred Video Game Development Process. In: HCD 09 Proceedings of the 1st International Conference on Human Centered Design: Held as Part of HCI International 2009, San Diego, California, 19-24 July 2009, pp. 65-74.

Glazier, L.P. (2002) *Digital Poetics: The Making of E-Poetries*. Tuscaloosa and London: University of Alabama Press.

Glúingel, A. (2006) *The Song of Amergin 1.* Translated from the Irish by Michael R. Burch. Available from: http://www.thehypertexts.com/Song%20of%20Amergin%20Modern%20English%20Translation.htm [accessed 22 August 2019].

Grayson, N. (2013) How a Lifetime of Heart Disease Birthed *Hyper Light Drifter*. Available from: https://www.rockpapershotgun.com/2013/11/07/how-a-lifetime-of-heart-disease-birthed-hyper-light-drifter/ [accessed 22 August 2019].

Grossman, E. (1975) The Antipoetry of Niconar Parra. Available from: https://www.nicanorparra.uchile.cl/english/technique.html [accessed 27th April 2017].

Hadfield, J. (2008) *Nigh No Place.* Newcastle: Bloodaxe Books Limited.

Hayles, N. K. (2007) Hyper and Deep Attention: The Generational Divide in Cognitive Modes. In: *Profession*, pp. 187-199.

Higgins, D. (1987) *Pattern Poetry: Guide to an Unknown Literature*. New York: State University of New York Press.

Hoagland, T. (2006) Fear of Narrative and the Skittery Poem of Our Moment. Available from: https://www.poetryfoundation.org/poetrymagazine/articles/68489/fear-of-narrative-and-the-skittery-poem-of-our-moment [accessed 19 August 2019].

Hyder, T. (2004) *War, Conflict and Play (Debating Play)*. London: Open University Press.

IGN (2012) The Labyrinth. Available from: https://uk.ign.com/wikis/god-of-war-iii/The_Labyrinth [accessed 23 August 2019].

Ikkyu (2004) *Wild Ways: Zen Poems of Ikkyu.* New York: White Pine Press.

Jakobson, R. (1960) Closing Statement: Linguistics and Poetics. In: Sebeok, T.A., ed., *Style in Language*. Cambridge, Massachusetts, The MIT Press.

Javerlin (2016) The *Hyper Light Drifter* Story Analysis Experience. Available from: https://www.reddit.com/r/hyperlightdrifter/comments/4d5ti0/the_hyper_light_drifter_story _analysis_experience/ [accessed 22 April 2016].

Jenkins, H. (2006) *Convergence Culture: Where Old and New Media* Collide. New York and London: The New York University Press.

Juul, J. (2005) *Half-Real: Video Games between Real Rules and Fictional Worlds*. Cambridge, Massachusetts: The MIT Press.

Juul, J. (2013) *The Art of Failure*. Cambridge, Massachusetts: The MIT Press.

Kay, A., Goldberg, A. (1977) Personal Dynamic Media. In: Wardrip-Fruin, N., Montfort, N., eds., *The New Media Reader*. Cambridge, Massachusetts: The MIT Press, pp.391-404.

Kay, A. (1984) Computer Software. In: *Scientific American* Volume 251, Number 3, pp. 53-59.

Karhulahiti, V-M. (2015) Defining the Videogame. Available from: http://gamestudies.org/1502/articles/karhulahti [accessed 13 November 2017].

Keogh, B. (2018) *A Play of Bodies: How We Perceive Videogames*. Cambridge, Massachusetts: The MIT Press.

Kuppner, F. (2008) *Arioflotga.* Manchester: Carcanet Press Limited.

Lamb C., Brown D.G., Clarke C.L.A. (2016) A Taxonomy of Generative Poetry Techniques. Available from: https://archive.bridgesmathart.org/2016/bridges2016-195.pdf [accessed 25 April 2019].

Levine, T. (2010) Videogame Art as Anti-Competitive Expression. Available from: https://www.gamescenes.org/2011/05/essay-ted-levines-videogame-art-as-anti-competitive-expression-2010.html [accessed 25 April 2019].

Landow, G. P. (1992) *Hypertext: The Convergence of Contemporary Critical Theory and Technology.* Baltimore and London: The John Hopkins University Press.

Lerner, B. (2016) *The Hatred of Poetry*. London: Fitzcarraldo Editions.

Lejeune, P. (1991) *La mémoire et l'oblique: Georges Perec autobiographie*. Paris: P.O.L.

MacDonald, K. (2018) Red Dead Redemption 2 review – gripping western is a near miracle. In: The Guardian, 25 October. Available from: https://www.theguardian.com/games/2018/oct/25/red-dead-redemption-2-review-western-playstation-xbox-rockstar [accessed 22 August 2019].

Longley, M. (2018) After Amergin. In: London Review of Books, Vol. 30, No. 7, 5 April.

Madigan, J. (2010) Analysis: The Psychology of Immersion in Video Games. Available from: https://www.gamasutra.com/view/news/120720/Analysis_The_Psychology_of_Immersion_in_Video_Games.php [accessed 20 August 2019].

Mallarmé, S. (2015) *A Roll of the Dice Will Never Abolish Chance.* Translated from the French by Robert Bononno and Jeff Clark. Seattle, Washington: Wave Books.

Manovich, L. (2006) Alan Kay's Universal Media Machine. Available from: http://manovich.net/content/04-projects/054-alan-kay-s-universal-media-machine/51_article_2006.pdf [accessed 13 November 2017].

Masters, E.L. (1915) What Is Poetry? In: *Poetry* Vol. 6(6), pp. 306-308.

Maxwell, G. (2012) *On Poetry*. London: Oberon Masters.

McCarey, P. (2011) *Collected Contraptions.* Manchester: Carcanet Press Limited.

McElroy, G. (2016) *Hyper Light Drifter* Review. Available from:

http://www.polygon.com/2016/4/6/11372562/hyper-light-drifter-review-PC [accessed 22

April 2016].

McHale, B. (2010) Narrativity and Segmentivity, or, Poetry in the Gutter. In: Grishakova,

M., Ryan, M., eds., *Intermediality and Storytelling.* Berlin: de Gruyter, pp. 27-48.

Miłosz, C. (1983) The witness of poetry. In: *The Charles Eliot Norton Lectures*.

Cambridge, Massachusetts: Harvard University Press.

Morgan, E. (2000) *New Selected Poems.* Manchester: Carcanet Press Limited.

Morgandag (2015) RymdResa. Available from: http://rymdresa.com [accessed 22 August

2019].

Moulthrop, S. (2003) Stuart Moulthrop's response. Available from:

http://www.electronicbookreview.com/thread/firstperson/insurgent [accessed 22 August

2019]

Murray, J. (1997) *Hamlet on the Holodeck: The Future of Narrative in Cyberspace.*

Cambridge, Massachusetts: The MIT Press.

Nakamura, J. and Csíkszentmihály, M. (2002) The Concept of Flow. In: Snuder, C. R.,

Lopez, S. J., eds., *Handbook of Positive Psychology*. New York: Oxford University Press,

pp.89-105.

Ovid (2014) *Ars Amatoria: The Art of Love.* Translated from the Latin by J. Lewis May.

Available from en.wikisource.org/wiki/Ars_Amatoria:_The_Art_of_Love [accessed 23

August 2019].

Parry, A. (2015), *The Polyvalent Plaything*. Goldsmiths University, London. Unpublished.

Paterson, D. (2004) The Dark Art of Poetry. Extracts recorded and published by David

Morley at: https://blogs.warwick.ac.uk/morleyd/entry/don_patersons_the_1/ [accessed 17

May 2019].

Paterson, D. (2018) *The Poem*. London: Faber & Faber.

Paz, O. (1991) *La casa de la presencia: Obras Completas I*. Barcelona: Circulo de

Lectores.

Perloff, M. (1991) *Radical Artifice: Writing Poetry in the Age of Media*. Chicago and

London: The University of Chicago Press.

Pitts, B. (1997) The Galaxy Game. Available from:

http://infolab.stanford.edu/pub/voy/museum/galaxy.html [accessed 20 May 2019].

Polygon (2016) Keep walkthrough and solutions. Available from:

https://www.polygon.com/the-witness/2016/1/26/10835040/keep-walkthrough-solutions

[accessed 23 August 2019].

Price, R. (1994) Approaching the Informationists. In: Price, R., Herbert, W. N., eds.,

Contraflow on the Super Highway: A Primer of Informationist Poetry, Southfields P.

Available from: http://www.hydrohotel.net/approach.htm, [accessed 7 August 2018].

Ravinthiran, V. (2018) Mercy Invincibility. In: *Poetry Review*, vol. 108, No.2.

Rich, Adrienne (1973) *Diving into the Wreck: Poems 1971-1972*. London: W. W. Norton &

Co.

Rimbaud, A. (2001) *Collected Poems.* Translated from the French by Martin Sorrell.

Oxford, New York: Oxford University Press.

Shklovsky, V. (1917) Art as Technique. Available from:

https://warwick.ac.uk/fac/arts/english/currentstudents/undergraduate/modules/fulllist/first/e

n122/lecturelist-2015-16-2/shklovsky.pdf [accessed 8 August 2018].

Sicart, M. (2010) Against Procedurality. Available from:

http://gamestudies.org/1103/articles/sicart_ap [accessed 8 August 2018].

Sharkey, J. (1971) *Mindplay: An Anthology of British Concrete Poetry*. London: Lorrimer

Publishing.

Stone, J., Irving, K. (2009) *Coin* Opera. London: Sidekick Books.

Stone, J., Irving, K. (2013) *Coin Opera 2: Fulminare's Revenge*. London: Sidekick Books.

Stuart, K. (2005) Ten unmissable examples of New Games Journalism. In: The Guardian, 3 March. Available from: https://www.theguardian.com/technology/gamesblog/2005/mar/03/tenunmissable [accessed 25 August 2019]

Szymborska, W. (1996) Some People Like Poetry. Available from: https://newrepublic.com/article/100289/some-people-poetry [accessed 12 July 2017].

Turco, L. (1986) *The New Book of Forms: A Handbook of Poetics*. New Hampshire: University Press of New England.

Tusser, T. (2009) *Five hundred pointes of good husbandrie*, the edition of 1580 collated with those of 1573 and 1577 together with a reprint from the unique copy in the British Museum, of *A hundreth good pointes of husbandrie* 1557. Available from: http://www.archive.org/stream/fivehundredpoint08tussuoft/fivehundredpoint08tussuoft_djvu.txt [accessed 23 August 2019].

Williams, J. H. (2004) No Rhyme. No Reason. Available from: http://www.pennilesspress.co.uk/poetry/john_hartley_williams.htm [accessed 24 May 2019].

Williams, W. C. (1954) *Introduction to* The Wedge. Available from: https://www.poetryfoundation.org/articles/69410/introduction-to-the-wedge [accessed 3rd March 2017].

Wimsatt, W.K., Beardsley, M.C. (1946) *The Intentional Fallacy*. In: The Sewanee Review, Vol. 54, No. 3 (Winter, 1946), pp. 468-488.

Wimsatt, W.K., Beardsley, M.C. (1949) *The Affective Fallacy*. In: The Sewanee Review, Vol. 57, No. 1 (Winter, 1949), pp. 31-55/.

Wittgenstein, L. (1976) *Philosophical Investigations*. Translated from the German by G.E.M. Anscombe. Oxford: Basil Blackwell.

Yaron, I. (2002) Hermetism in the Poetry of E. E. Cummings: An Analysis of Three Obscure Poems. *Spring*, (11), new series, pp. 107-119.

Zimmerman, E., Salen, K. (2003) *Rules of Play: Game Design Fundamentals*. Cambridge, Massachusetts: The MIT Press.

Mediography

3909 LLC (2013) *Papers Please.* 3909 LLC.

Andrews, J. (2003-2017) *Arteroids*, 3.1. Available from:

http://vispo.com/arteroids/arteroids312.zip [accessed 26 May 2018].

ArenaNet (2012) *Guild Wars 2*. NCSOFT.

Arkane Studios (2012) *Dishonored*. Bethesda Softworks.

Atari (1976) *Breakout*. Atari.

Black Isle Studios (1999) *Planescape: Torment*. Interplay Entertainment.

Bogost, I. (2010) *A Slow Year: Game Poems*. Open Texture.

Capcom (1989) *Strider.* Capcom.

Capcom (1999) *Strider 2*. Capcom.

Carpenter, J. R. (2016) *The Gathering Cloud*. Available from:

http://luckysoap.com/thegatheringcloud/ [accessed 23 August 2019].

Crowther, W. (1977-2011) *Colossal Cave Adventure*. Android version by EC Software Consulting.

Chucklefish (2016) *Starbound.* Chucklefish.

Core Design (2000) *Tomb Raider: Chronicles.* Eidos Interactive.

Cyan (1993) *Myst*. Brøderbund.

Everything Unlimited (2015) *The Beginner's Guide*. Everything Unlimited Ltd.

Free Lives (2015) *Broforce*. Devolver Digital.

Galaxy Trail (2014) *Freedom Planet.* Galaxy Trail.

Halfbrick (2010 *Fruit Ninja.* Halfbrick.

Heart Machine (2016) *Hyper Light Drifter*. Heart Machine.

Hedger, M. (2004) excuse. Available from:

http://www.mauvezone.screaming.net/pages/hypertext%20poetry.htm [accessed 10 July

2018].

Hedger, M. (2004) Layer Love. Available from:

www.mauvezone.screaming.net/pages/hypertext%20poetry.htm [accessed 10 July 2018].

How Videogames Changed the World (2013) [TV]. Channel 4, 30 November.

inXile Entertainment (2017) *Torment: Tides of Numenera.* Techland Publishing.

Looking Glass Studios, Ion Storm, Edios Montreal (1998-2014) *Thief.* Eidos Interactive,

Square Enix.

LucasArts (1998) *Grim Fandango*. LucasArts.

LucasArts, Telltale Games (1990-2010) *Monkey Island.* LucasArts, Disney Interactive.

Lutz, Théo (1959-2009) *Stochastische Texte*. Available from:

http://freelutz.netzliteratur.net/e/eingabe1.php [accessed 23 August 2019].

MagicalTimeBean (2011) *Escape Goat*. MagicalTimeBean.

Matt Makes Games (2013) *Towerfall.* Matt Makes Games.

Morgondag (2015) *RymdResa.* Morgondag.

Namco (1980) *Pac-Man.* Namco, Midway Games.

Night School Studio (2016) *Oxenfree.* Night School Studios.

Nintendo (2001-2017) *Animal Crossing*. Nintendo.

Nintendo (1981-2019) *Mario.* Nintendo.

Nintendo (1996) *Mario Kart 64.* Nintendo.

Nintendo (1994-2018) *Wario.* Nintendo.

Nintendo EAD (1986) *The Legend of Zelda.* Nintendo.

Nomada Studios (2018) *Gris*. Devolver Digital.

Number None (2008) *Braid*. Number None Inc.

Pocketwatch Games (2013) *Monaco: What's Yours is Mine.* Pocketwatch Games.

Project Sora (2012) *Kid Icarus: Uprising.* Nintendo.

Rare, Double Helix Games, Xbox Game Studios, Iron Galaxy Studios (1994-2013) *Killer Instinct.* Midway Games, Nintendo, Xbox Game Studios.

Revolution Software (1994) *Beneath a Steel Sky.* Virgin Interactive Entertainment.

Rockstar North, Digital Eclipse, Rockstar Leeds (1997-2013) *Grand Theft Auto*. Rockstar Games.

Rokas (2018) *Seek Etyliv.* Available from: https://rokasv.itch.io/seek-etyliv [accessed 6 July 2018].

SCE Santa Monica Studio (2010) *God of War 3.* Sony Computer Entertainment.

Sega Technical Institute (1992) *Sonic the Hedgehog 2.* Sega.

Silicon Studio (2012) *Bravely Default.* Square Enix, Nintendo.

SNK, Yuki Enterprise (1993-2019) *Samurai Shodown.* SNK, Sega.

Square (1995) *Chrono Trigger*. Square.

Square, Square Enix (1987-2019) *Final Fantasy.* Square, Square Enix, Nintendo.

Square Product Development Division (1999) *Chronos Cross.* Square, Square Electronic Arts.

Teknopants (2013) *Samurai Gunn.* Maxistentialism.

Thekla, Inc. (2016) *The Witness.* Thekla, Inc.

Treasure (1996) *Guardian Heroes.* Sega.

Ubisoft Montreal (2014) *Child of Light*. Ubisoft.

videodante (2016) *d·i·v·i·n·e·r*. Available from: https://videodante.itch.io/diviner [accessed 3 March 2016].

Vlambeer (2015) *Nuclear Throne.* Vlambeer.