

Carving an Alternative Feminist Historiography in  
Christine Wilks' Digital Work Underbelly

إعاده كتابة تاريخ النساء في الرواية الرقمية "رحم الارض"

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### Abstract:

The emergence of digital fiction as a hybrid form between computer world and literature has created new literary forms with interactive, multimodal, transmedial features. The aim of this paper is to revisit a forgotten episode of women histories in the Victorian age using the medium of digital fiction, through studying Christine Wilks' *Underbelly* (2012). The narrative traces the history of women miners in England through interviewing a sculptor who was working in the site of a former Yorkshire colliery. The paper attempts to analyze *Underbelly* from different theoretical approaches: First, Espen Aarseth topological model of cybertexts is used to investigate the relation between game and digital studies. Moreover, *Underbelly* will be studied from a narrative and multimodal perspectives to show how narration can be enriched by digital media, and the role of visual, audio and textual techniques. The paper examines *Underbelly* as a manifestation of cyber-feminism.

**Key Words:** digital, cybertext, multimodal, narrative, historicism, cyberfeminism.

### إعادة كتابة تاريخ النساء في الرواية الرقمية "رحم الارض"

#### الملخص

مزجت الرواية الرقمية بين عالم الأدب وعالم الكمبيوتر، وظهرت بخصائص مختلفة عن الأدب التقليدي، حيث اتسمت باستخدام الأشكال التفاعلية بالإضافة إلى مزج النص بالصور والمؤثرات الصوتية مما يشكل تحدياً حقيقياً للكتابة التقليدية ويعيد النظر في الأدوار المنوطة بكل من الكاتب والقارئ والنص.

يهدف هذا البحث إلى دراسة رواية "رحم الارض" للكاتبة كريستين والكس كنموذج للرواية الرقمية والتي ألقت الضوء على حلقة منسية من التاريخ البريطاني ويهدف أيضاً إلى إعادة كتابة التاريخ من منظور نسوي وذلك من خلال تأريخ قصص معاناة بعض العاملات البريطانيات في المناجم في العصر الفيكتوري. يعتمد هذا البحث لسبر أغوار الأدب الرقمي على تطبيق نموذج أسبن ارست للادب الالكتروني لفهم الخصائص التفاعلية للرواية الرقمية، بالإضافة إلى تحليل الرواية الرقمية من منظور سردي بمعرفة كيف يثري هذا النوع من الأدب الأشكال السردية المختلفة، وأخيراً يحلل البحث الوثائق التاريخية والصور والمؤثرات الصوتية لمعرفة كيف يمزج الأدب الرقمي الوسائط المتعددة لتحقيق رسالة الكاتبة المعنية بإعادة كتابة التاريخ.

**كلمات مفتاحية:** التطريز الصوتي – الترجمة التتبعية – الإيقاع – التنغيم – اللغة الثانية

## **Carving an Alternative Feminist Historiography in Christine Wilks' Digital Work Underbelly**

### **Introduction:**

In an age known as “digital age”, in which technology has invaded almost all facets of human existence, changes brought by technology not only affected scientific fields, but also spread its massive influence on literary studies, changing the traditional literary scene forever. The advancement of internet technologies at the beginning of the twenty first century with the emergence of new software programs has led to the appearance of many fictional forms in internet digital environment including interactive fiction, hypertext, blog fiction and others. Digital fiction<sup>1</sup>, is a term given to these forms of electronic literature, the hybrid species between computer world and literary traditions. In her canonical essay “A [S]Creed for Digital Fiction”, Alice Bell defines the term as “fiction written for and read on a computer screen that pursues its verbal, discursive, and/or conceptual complexity through the digital medium, and would lose something of its aesthetic and semiotic function if it were removed from that medium”. Because it depends on a different medium from printed texts which is computer screen and a mouse, digital fiction has distinctive features. From a narrative perspective, most of digital fiction employs techniques of multi-linearity, lack of closure, textual fluidity, multiple narrative voices and different storyworlds. In addition, the reader’s role is expanded to be larger than a mere recipient to an active participant, player and sometimes author who can modify the text, creating his/her new version. Most importantly, digital fiction blurs the boundaries between genres of literature, art, animation, music, photography and videogames, combining textual, audio/visual possibilities along with ludic features. These multi-modal potentials challenge traditional approaches and advocate for more innovative ways to fully grasp the aesthetic affordances of electronic literature.

Digital fiction has witnessed a tremendous development since its first appearance in the second half of the twentieth century. Critics categorize three generations of digital fiction, “hypertext, hypermedia, cybertext” (Bell, “[S]creed”). It started with hypertext, a concept that was

conceived by the American philosopher Ted Nelson in 1965 that refers to “a variety of nodes or lexias [that] are connected by various links, creating a web or network that the reader navigates in diverse ways” (Gaggi 122). The major characteristic of hypertext is hyperlink that allows the reader to open different windows in the text, and to choose different paths. Thus, the text becomes multi-linear. *Afternoon a Story* (1987) has become a classical text in hypertextual literature which challenges traditional reading strategies. Later on, electronic literature scope has widened with the emergence of HTML, Javascript, and Flash programs which led to appearance of the second generation, i.e. hypermedia. The term, “short for ‘hypertext multimedia’, is based on the--concept of digitally encoded multimodality” which “allowed the combination of multiple semiotic systems into various forms of digital multimodality” (Ensslin 153). Hypermedia fiction includes different forms of texts using image, text, sound, graphics and other web options. In 1997, electronic literature witnessed further development with the appearance of the term cybertext coined by Espen Aarseth to add a third dimension to the electronic literature which is ergodics. Inspired by video games and game studies, he focuses on ludic features as a quintessential part of the digital literature. Aarseth’s topological model, as many critics suggest, marks the third generation of digital fiction.

From a theoretical perspective, critics distinguish two major waves of studying digital fiction. The first wave witnessed a theoretical debate, according to Bell, as literary theorists “sought to understand digital fiction predominantly in terms of abstract poststructuralist models” (“[S]creed”), focusing on aspects as death of the author, non-linearity and decentralization. However, the second-wave relied more on “methodological analysis...as offering an explicit application of theorized practices” (Bell “[S]creed”). Critics started to study each single text analyzing the intertextual, transmedial, multimodal and ludic aspects. Part of the debate concerning theorizing digital fiction comes from the fact that this genre can be analyzed from the perspective of literary theories from one side, and from film, music studies and multimodal studies along with games studies from another side. Thus, adopting a single theoretical approach to analyze a digital literary work is almost impossible, because

“digital fiction fits comfortable in none of these critical frameworks, the sum of its (moving) parts troubling an exclusive application of any one of them” (Ciccoricco 256).

Moreover, digital fiction becomes the platform for presenting different ideologies as new historicism, feminism, psychoanalysis, postcolonialism. One of the concepts that has appeared to the fore with the spread of electronic literature is cyber-feminism, to signify the intersection between gender identity, culture and technology. One of the main concerns of cyber-feminism is how internet can contribute to change gender inequality via information technology. If feminism is strongly related to empowering women against social, political and sexual conditions that confine them, and liberating them from gender roles, cyber-feminism

can link the philosophical practices of feminism to contemporary feminist projects and networks both on and off the Net, and to the material lives and experiences of women in the new world order, however differently they are manifested in different countries, among different classes and races (Mulyaningrum, et al 2).

Considering all these factors, this paper attempts to apply multimodal, transmedial, narrative and ergodic approach to analyze the digital fictional work *Underbelly* (2010), the winner of the New Media Writing Prize 2010, by the British digital writer, artist and developer of interactive playable stories Christine Wilks (1987-). This paper aims at bridging the gap between the literary critical theory and digital world, and between the first and second theoretical waves through multiple theoretical lenses: the topological model of cybertext theory along with the postmodern, narrative and multimodal theories. It also investigates how Christine Wilks employs the affordance of digital fiction to rewrite forgotten women histories in her text *Underbelly*, and to link the past sufferings with the contemporary harsh realities that women face these days.

### **Multiple Theoretical Frameworks:**

Emerging from two different worlds which are literature and computer, digital fiction is hybrid by nature. In her article

“Cyber/literature and Multicourses: Rescuing Electronic Literature from Infanticide”, Katherine Hayles defines electronic literature, the umbrella term for digital fiction and other forms, as “the hybrid progeny of an interspecies mating between computer games and literary traditions”. This combinatory approach resulted in a new term, “cyber/literature”, in which “the set of statements are 1) the literary tradition is its parent, 2) the computer game is its parent, 3) the link is the essential feature, and 4) computation is the essential feature”, confirming that “trying to kill off either parent, literary or computational, is more apt to result in infanticide rather than parricide” (Hayles). She underscores the importance of both parents to the field of electronic literature, as it is not sufficient to analyze the complexities and the intricacies of this hybrid form via tropes of games, interactivity and player’s choices only, but also it is important to analyze digital narratives as literary texts with their employment of narrative voice, metaphors and construction of plot.

In order to understand the computational side of digital fiction, and the role played by videogame with its multi-modal affordance in its emergence, cybertext theory is considered a fundamental source to study the digital fiction in its own terms, as it “addresses the unique dual materiality of cybernetic sign production and gives us an accurate and heuristic description of how the textual medium works” (Esklinen). Aspen Aarseth’s book: *Cybertext: Perspectives on Ergodic Literature* (1997) is a valuable model for analyzing electronic literature in the light of computer driven textuality and computer games studies. Aarseth defines cybertext as “a *perspective* on all forms of textuality, a way to expand the scope of literary studies to include phenomena that today are perceived as outside of, or marginalized by, the field of literature-or even in opposition to it” (18).

As its name suggests, cyber is related to computer world and machines, text is an umbrella term that can include literary works and computer programs. The theory focuses on “the mechanical organization of the text, by positing the intricacies of the medium as an integral part of the literary exchange” (Aarseth 1). In other words, cybertext is not seen as a text with links as traditional critics see it, but rather as “a mechanical device for the production and consumption of verbal signs” (Aarseth 18)

that keeps some aspects of narrative. If the text is a kind of machine, it is structured as “a symbiosis of sign, operator and medium” (Aarseth 55). The text objective is to pass information. Aarseth sees information as “strings of signs” (62). He distinguishes between these strings as textons, strings of signs as they are in the text, and scriptons, strings of signs as they appear to readers/users (Aarseth 62). Moreover, the text consists of traversal function, “the mechanism by which scriptons are revealed or generated from textons and presented to the user of the text” (Aarseth 62). Traversal function combines seven variables which are dynamics, determinability, transience, perspective, access, linking, and user function. He applies his typology to hypertext fiction, printed literary texts, adventure games and MUD (the virtual world of text based games, interactive fiction and online chat). These different texts are divided according to these variables as static or dynamic, determinable or indeterminable, transient (appear alone on the screen), or intransient (activated by the user), with personal or impersonal perspective (the user has a role as a character in the text world or just reading), randomly accessed or with controlled access (the parts of the text are readily available to the user all times or controlled by the moves of the user), and finally the text is connected with explicit, conditional or with no links. The final function that distinguishes these texts is the user role in navigating the text that can be described as

the interpretative function of the user, which is present in all texts, the use of some texts may be described in terms of additional functions: the explorative function, in which the user must decide which path to take, and the configurative function, in which scriptons are in part chosen or created by the user. If textons or traversal functions can be (permanently) added to the text, the user function is textonic. If all the decisions a reader makes about a text concern its meaning, then there is only one user function involved, here called interpretation. (Aarseth 64)

According to this typology, printed literary texts can be seen as static, intransient, determinate, impersonal, randomly accessed, with no links and the reader only has interpretative function. Electronic literature and adventure video games however can share the qualities of being



indeterminate, transient, personal, controllably accessed, with links, and with configurative user function.

The other crucial component of cybertext theory is the concept of ergodics, which is strongly related to the idea of game, and which Aarseth uses to describe the cybertextual reading process. Ergodics is a term borrowed from Greek origin which means work and path, to confirm that “nontrivial effort is required to allow the reader to traverse the text” (Aarseth 1). If narratives, according to Gérard Genette, comprise two kinds of representations, description and narration, cybertexts surpass narratives, with a more complex dimension. A cybertext, as Aarseth views, has three levels: description, narration, and ergodics (the reader's choices), which adds to the complexity of the experience, and reflects how gaming is an intrinsic part of electronic literature. Thus, cybertext “is not a reconfiguration of narrative but offers an alternative to it, --- through the concept of ergodics” (Aarseth 85).

Cybertext is a kind of a game, where the user must explore the text as one explores labyrinth which leads to unlimited options, either to go to the next stage or to lose track, or to go back to paths he/she passes before. So the user becomes more than a reader, he/she becomes a player or a decision maker in the narrative/game; his/her role is not just to interpret the narrative, rather, to intervene in its course. These cybertexts give the user unlimited options of mobility, liberation, and renewal, yet, in the same time, they can lead to disorient him/her with the unlimited choices, links and digressions that will prevent the possibility of grasping the whole vision. Aarseth confirms this point: “the cybertext reader *is a player*, a gambler; the cybertext is a game-world or world-game; it is possible to explore, get lost, and discover secret paths in these texts, not metaphorically, but through the topological structures of the textual machinery” (4).

The labyrinthine experience of puzzlement, doubt, loss and exploration experienced by the cybertext user is described as *aporia*, with no evidence of clear closure. Then, there could be a moment of enlightening disclosure, an exit which will end the *aporia*, the link out, which equals epiphany in traditional stories. “Together, this pair *aporia*-

epiphany constitutes the dynamic of cybertext discourse: the dialectic between searching and finding typical of games in general. The aporia-epiphany pair is thus not a narrative structure but constitutes a more fundamental layer of human experience” (Aarseth 91-2).

Aarseth’s framework of cybertexts is a valuable model for analyzing digital fiction as it assigns different criteria to the composition and reception of the electronic literature, or as Esklinen puts it, “Aarseth’s theory focuses on functional differences within media instead of making essentialist claims”, giving a chance for challenging its findings, expanding the realm of traditional literary studies into new territories. However, resorting to literary theories of postmodernism, poststructuralism is essential for analyzing the complexity of electronic literature. Cybertext theory revalidates to a great extent the post-structuralist reader-response theory as both agree on disempowering the author/operator, and empowering the readers by inserting them inside the feedback loop. Moreover, the labyrinthine model of the game is closely related to postmodernism concept of decentralization.

In order to understand part of the literary side of digital fiction, the other parent to electronic literature, the paper will focus on the narrative theory in an attempt to answer the question whether print oriented narratological approaches can be applied to non-print texts or not. Because narrative theory is applied mainly to printed literature, its use with the digital world can cause “blind spots” (Bell, Ensslin and Rustad 9). Cybertexts with their multi-linearity, lack of closure and user’s choices challenge traditional concepts as plot, story, narrator, narratee, reader, implied reader, duration and focalization. However, some attempts were developed to extend the scope of narrative theory on different media and led to many valuable insights. David Ciccorccio, Alice Bell and Astrid Ensslin attempted to study different digital fictional works from a narrative perspective using methodological analysis.

David Ciccorccio’s articles, “Digital Fiction and Your Divided Attention” and “Focalization and Digital Fiction” provide an example of how a basic narratological concept like focalization can be reconceptualized in the world of digital fiction. Focalization is the filter

through which the story is told whether via internal or external focalizer, character or narrator and causes much debate within printed literature. Digital fiction adds more complexity to the notion as well. In order to analyze the complicated layers of narration and focalization in digital fiction, new tools should be employed. "Cybernetic narration" and "point of action" are new terms coined by Ciccorccio that extend the scope of narrative theory. Cybernetic narration is a term derived from cinematic narration to refer to "algorithmically orchestrated relationship between reader and machine involving loops of human input and computer output" (256). The same point is confirmed by Bell, "in experiencing digital fiction, we become part of a cybernetic feedback loop, in which we feed and are fed back perpetually. --- The text is us. The machine is us" ("[S]creed"). In this way, cybernetic narrator "may offer an answer to the question that expands the classic narratological pairing of "who speaks?" and "who sees?" with "*who links?*" (Ciccorccio 78) This idea of "who links" refers to the intelligent machine in the computer that has agency and can shape and control our reading process. It may also refer to the authorial voice, a narrative agent, who is external to the story world, but simultaneously inside it as heterodiegetic narrator, "much like a playful ghost in the machine" (Ciccorccio 79), who is responsible for designing elements, and adding links to the interface.

The other term that Ciccorccio employs is "point of action", which is derived from game studies, in which the reader uses the mouse pointer like he moves between pages and chapters in a book. The reader's actions (using the pointer) reflect his point of view of the text as a reader. In addition, getting out of a maze, writing comments or completing a text, and changing the ending of the story are among the options the reader enjoys. Ciccorccio states that, as readers, "we must augment what we see and what we hear with *what we do* and what the text does in turn" ("Digital Fiction and Your Divided Attention" 75). In fact, Ciccorccio's views of regarding the reader as narrator, and an interpreter of focalization and the machine as an agent of focalization have added new dimensions to the traditional focalization theory in the context of the digital world, and shows how traditional theories can and should be revised and expanded for new media.

Not only does digital fiction redefine the relation between author, reader and the text from a narrative perspective, but also it transcends the relation between different art forms including literature, cinema, music and photography. In fact, contemporary electronic literature transcends all borders by using graphics, images and sound effects within the text. The infinite options that the internet provides have led to appearance of different forms of digital fiction mixing visual/audio and textual experience. Here comes the importance of studying contemporary digital fiction from a multi-modal perspective, as Hayles advocates, “the multimodality of digital art works challenges ... critics to bring together diverse expertise and interpretive traditions so that the aesthetic strategies and possibilities of electronic literature may be fully understood” (qtd. in Ensslin, Bell, and Rustad 13). Digital fiction makes best use of these options in a way that makes the reading process incomplete without exploring the multi-media the text offers.

The combination of different semiotic resources (sound, video, images, text and graphics) was first discussed by Roland Barthes' who explored the link between an image and words as “anchorage” in which “the text directs the reader through the signifieds of the image” (119), or “relay” that refers to ‘text and image stand in a complementary relationship’ and are both ‘fragments of a more general syntagm’, to which each contributes its own, distinct information (230). Later Theo van Leeuwen in his book, *Introducing Social Semiotics* proposes a theory on multimodal coherence, in which he calls this combination as “elaboration” which means “the words pick out one of the possible meanings of the image” (230), or “extension” as “two items – one verbal, one visual – provide different, but semantically related information” (230). Rustad clarifies the same point saying: “the different resources guide the reader in the interpretation of other resources, and in that sense frames our reading” (“Four Sided Model”). All in all, incorporating different semiotic resources in digital fiction is very crucial as it adds layers of interpretation and enhances the overall reading experience.

Combining all these theoretical perspectives that include ludic, narrative, multimodal, interactive; digital fiction becomes an important and revolutionary medium for discussing the ideologies of feminism,

colonialism and historiography raised in printed fiction, and that has been the concern of contemporary and postmodern writers. This is exactly what Christine Wilks has aspired to achieve via her digital work *Underbelly*. This will be discussed in detail in the next section.

### **Rewriting History on the Digital:**

Rewriting the forgotten histories of women, a group that has been traditionally marginalized, was part of feminist and postmodern agenda in the recent era. Unlike grand narratives of history, many women writers started to document stories of women's suffering that was always neglected in the official historical records. With the infinite options that technology provides, internet becomes the new arena for women's struggle against erasure of their histories.

Women's labor in mining industries throughout centuries in the United Kingdom is one of the forgotten episodes of women's history as it is rarely recorded in official historical documents. Till the first half of nineteenth century, women used to work in mining industry, in colliery pits in certain parts in Britain including east Scotland, west Lancashire and west Yorkshire. Women were working in small pits underground to help their husbands or fathers as "a legacy of a much older system of mining when whole families had worked together" ("The Scandal of Female Miners"). As women were paid half of what men were taking, Natasha Frost claims, "employing women in the mines was financially advantageous to both their bosses and their families...Women had worked in Staffordshire mines for centuries, adding crucial coffers to family kitties".

Confined underground for long hours in hot filthy pits, hauling coal, and pushing trucks forced some women to take off parts of their clothes. These horrible working conditions lasted till images of topless women and girls working down the mines first appeared in the British press over 170 years ago and caused an upheaval for the conservative British society. These images led the parliament to initiate an investigation about the working conditions in the pits, which resulted in shocking testimonies which were documented and collected for Lord Ashley's Mines Commission of 1842. These testimonies exposed the

scandal of female miners and their abuse in the collieries and resulted in the Mines Act of 1842, which “banned females from underground work to protect their health and morals, and to enable them to look after their families properly” (“The Scandal of Female Miners”). However, women continued to work in the mines for a while due to the severe economic conditions in these areas.

This dark stage of female and child labor was eventually forgotten after the decline of the mining industry. The women’s stories, like the old mines, were buried underground. Rereading these testimonies, in an attempt to rewrite this forgotten episode of British women’s history is the basis which Wilks relied on in her digital fictional work *Underbelly*. Collecting fragments of those women’s lives is Wilk’s main concern, as part of her project which centers on reviving women’s heritage electronically. As she states in her article, “Underbelly and Sister’s Stone Carver”:

So much history is buried beneath our feet, and histories buried in other ways, by forgetfulness or disregard. If you live in a former mining area in Britain, that history is deep underground. Evidence of the coal mines have been erased from the landscape, swept away in less than a generation. Deeper still in the past, there’s a buried history of women working underground too. When I found out about the women miners, I thought of my sister, the sculptor, Melanie Wilks, working on the site of a former colliery turned into parkland, hand-carving stone on the very ground above where those pasts are buried. Such fragments of contemporary life and shards of history I hauled together to build *Underbelly* in digital media.

Raised in Morley, a small town in Northern England famous for coal mining industry, Christine Wilks, with the collaboration of her sister Melanie, manages to create literary and art works rooted in the local culture of the place that symbolize new Victorian art and aestheticism. While her sister’s work is located in the area, exemplified in local sandstones, Christine Wilks’ work can only be found digitally, in the virtual space. Her aim is to connect the digital world with the traditional

artistic style adopted by her sister, as part of her larger objective juxtaposing women's past sufferings with the contemporary harsh realities of women who face similar predicaments in their careers till now. As she admits:

Where does my work exist? It's digital, conjured up out of code – just zeros and ones when you get down to it – it's nowhere and anywhere and all over the place, scattered or drifting, packets of data being pulled and pushed in cyberspace. Whereas Melanie's stone sculptures are unequivocally present, rock solid in a geographical location. We're at opposite ends of the scale – sisters, so similar and yet so far apart in terms of the materials and processes we work with. But both of us, in our different ways, working with the past in the present... *Underbelly*, my work of playable media fiction, is an exploration of women's bodies in relation to the land – past and present, inside and outside, above and below ground. (“*Underbelly and Sister's Stone Carver*”)

In fact, Wilks manages to make the best use of multi-modal, ludic, interactive affordance of digital fiction, leaving a memorable effect on her readers/ players or as Leonardo Flores describes *Underbelly*, “exquisitely researched historically, pictorially, and ethnographically, it weaves together these distinct strands to cast a spell upon readers who explore its interfaces.”

### **Women Underground: Reading/Playing/Experiencing *Underbelly***

*Underbelly* is a distinctive work of digital literature that traces the experiences of the women miners of 19<sup>th</sup> century Britain, highlighting their struggles. It is a complex narrative where history and feminism intersect with digital literature, highlighting “the repressed fears and desires about [women's] sexuality, potential maternity and worldly ambitions mashed up by disregarded histories of the 19<sup>th</sup> Century women who once worked underground in mining coal” (Wilks, “*Visual Work*”).

From a narrative perspective, *Underbelly* is a multi-layered text, divided into multiple narratives that intersect with each other in a labyrinthine experience. The initial interface summarizes in points the

history of female coalminers of Pit Brow lasses from early 19<sup>th</sup> century where 6000 women were working in coal mining in England till 1990, when “UK mining virtually extinct, former colliery sites are erased from landscape” (Wilks, “Underbelly and Sister’s Stone Carver”). The work starts with a primary narrative consisting of a video interview with a sculptor, who accepts a commission to carve stone sculpture on a former Yorkshire colliery, now a country park. While carving the stone, the primary narrative of the sculptor is intruded by mingled women voices’ that recount different female miners’ stories, which signal a secondary embedded narrative in this maze-like text. What adds to the narrative complexity is the role that the sculptor plays. She appears as an external focalizer, an authorial voice, who is external to the storyworld, but simultaneously inside it as heterodiegetic narrator. Her statement, ‘I tune into the echoes of the past’, connects the sculptor to the 19<sup>th</sup> century female miners and their narrative.

The shift between the two narratives is permeated through changing the interface from the sculptor’s interview that shows the act of sculpting above the ground to another interface that appears as a coal mine revealing details in the tunnels under the ground that are triggered by the reader’s clicks on the mouse. The two narratives intermingle and intersect in a double ended framework controlled by the user’s choices. As the user explores the space of the narrative using the mouse pointer over icons, one can hear either piece of the interview or women’s voices. Throughout the text, this pairing of past and present becomes more visible.

What adds to *Underbelly’s* complexity is its employment of videogame ludic features. If we apply Aarseth’s theory, we will find that *Underbelly* is an ergodic cybertext that combines text with gaming. According to his topological model with its seven variable traversal functions, *Underbelly* is considered a dynamic text with changeable interfaces, but with no links to external websites; it is intransient as it appears by user’s clicks, with indeterminate ending and personal perspective as the user has a final choice. The whole text can be seen as a game of many stages that starts with female miners’ stories that are revealed by the reader’s clicks on icons such as chisels and small swirls.



Each click reveals the name and figure of a woman, who tells her story about her experience working in the mines. Wilks states that the women's stories are based on the true testimonies collected by Ashly commission from female miners. Stories of women from different ages clearly portray 19<sup>th</sup> century women suffering from working in mines, and how this work has consumed their bodies in a harsh way like Janet (18 years old) who is forced to go under the narrow tunnels as she has "small body", and Betty (37 years old) who becomes weaker after delivering her child, yet still goes down by ropes. The harsh conditions did not exclude children from labor. Mary (14 years old) says: "I don't like to work in a pit, I have to go underground...I was afraid at first... I help my brother John, I get used to it" (Wilks, *Underbelly*). The game continues by moving to the next screen in which babies' images move across the screen. The overall effect of the game is haunting as the users find themselves in a labyrinthine structure, or aporia in Aarseth's terms, in which they should click on many icons in order to reach the epiphany moment. The epiphany or final stage of the game occurs with the appearance of three images: baby in a womb, vagina, and a woman's body that signify the only three choices that women have, either in the past like the miners, or in the present like the sculptor. These choices mean either to try to get pregnant, or to leave it to chance, or not to have children. As the user is thinking about choices, a woman's voice warns: "time is running out. You have had twenty fertile years to decide. Which will you take? Choose! Choose!" (Wilks, *Underbelly*). After choosing an option, a wheel appears and the users have to spin it to see whether or not they will become pregnant. One choice leads to this written statement, "the sculptor gives birth to healthy child, and she drops her career as an artist" (Wilks, *Underbelly*). If users are not satisfied with the choice, they can try again, but the voice warns again saying, "but remember the time is running out". Another choice states, "the sculptor never gets pregnant despite the risk she took in her late thirties" (Wilks, *Underbelly*). The text gives the user the chance to click many times, till being satisfied with the choice. Here the game comes to an end. The game-like structure of *Underbelly* manipulates the users in a way that forces them to participate in the game sharing the same feelings with the characters.

Following Aarseth's topological model, the user of *Underbelly* performs three functions: interpretive, explorative, and configurative. Not only do they interpret the text and explore the paths, but also they participate actively in the narrative by their choices. User's different functions resembles Ciccorco's term, "point of action", which expands the role of the reader as "an interpreter of focalization" in a complicated way. Deciding which path to go, and, how, when and where to traverse the text, and to decode the semiotic signs involving the user in many roles including linking from part to another, creating meaning from the missing parts. The reading/playing/watching experience leads the users to identify themselves with the characters, having the same feeling of pain, stress and anxiety as women miners or the sculptor. Rachel Cavotta confirms this point in her analysis of *Underbelly* stating: "the interactive and game-like interface creates a new experience for the reader in which they can become a part of the text and even experience the same pressure and anxiety as the characters".

From a multimodal perspective, *Underbelly* makes use of video, imagery, sounds and written text in a collaborative manner to convey the writer's feminist ideological framework of rewriting female history. From the beginning of the text, the video of the female sculptor appears as a real interview. Wilks confirms that the video is performed by her sister Melanie who works as real sculptor in Morley. As a semiotic source, the video "provides a kind of window to reality" (Rustad, "(In-) between Word, Image, and Sound" 149). It shows "a single and homogeneous "realistic" world that gives the reader the impression of seeing through the complex representation." (Rustad, "(In-) between Word, Image, and Sound" 149).

The interface that follows the video incorporates different layers of imagery. It is designed to appear as a coal mine with black background, narrow grey tunnels, but it looks like uterus as well. Scissors' and chisels' imagery moves randomly in the interface. When women start telling their stories, the background becomes white and people colored in black appear. The dominance of black and white colors can refer to lower modality, as Leewan suggests, that is used to represent the past, dreams, and fantasies. However, in modern art, visual truth is much deeply

connected to abstract truth. So, “the more an image represents the deeper ‘essence’ of what it depicts, or the more it represents the general pattern underlying superficially different specific instances, the higher its modality from the point of view of the abstract truth” (Leewan 168). In other words, the text’s visual austerity is a technique intentionally used by Wilks to express the abstract truth of these women, and how much despairing and bleak their lives seem. In addition to her manipulation of colors, Wilks uses two frequent images that have disturbing effects on the users. The first is a woman crawling on her hands and knees with chains dragging a cart, as part of her work requirement. The image confirms the overall message of the text, of how women were and still are abused and humiliated in harsh working conditions. The second image is of fetus swimming in a womb. According to Leonardo Flores in his analysis of the work, this image is haunting as it draws an analogy between “a woman’s body and the treasures that lie beneath the earth”. This is much related to Wilks’s choice of the title of her work, *Underbelly* that can refer to female reproductive organs as uterus, and ovaries or it can mean underground in the mines.

Apart from image analysis, studying “framing” which is another semiotic concept can be useful in analyzing *Underbelly*. First, framing refers to

the disconnection of the elements of a visual composition, for instance by frame-lines, pictorial framing devices – boundaries formed by the edge of a building, a tree, etc. – empty space between elements, discontinuities of colour, and so on. The concept also included the opposite, the ways in which elements of a composition may be visually connected to each other, through the absence of disconnection devices, through vectors, through similarities of colour, visual shape, and so on. (Leeuwen 7)

Connection or disconnection between text and picture is achieved via types of framing. For example, when the text overlaps or intrudes the image, it creates connection. In this case, “text can be deigitalic part of the represented world” (Leewan 11). When the image occupies the same space as the text, both will be ‘integrated’. If the text is integrated into the

pictorial space, it results in what Leewan calls “pictorial integration” (12); whose effect is absorbing text into the dream, the fantasy realm. When part of the text overlaps with the picture, he calls it “overlap” between the fantasy of the picture and the reality of the text. In *Underbelly*, text and image are not separated; they do not occupy distinct territories. There is a kind of integration between the images of humiliated women, grey tunnels, and the initial text that recount the experiences of female coalminers of “Pit Brow Lasses”, or the final statements that limit women’s choices.

Not only does Wilks incorporate image in the text, she employs voices and sounds as well. Sound act is a term defined by Leewan as combination of melodic features along with tempo, rhythm, voice quality to leave the same effect as image or text (122). Wilks combines the different semiotic sources to achieve what social semiotic theory often refers to as “affordances” (Qtd. in Rustad, “(In-) between Word, Image, and Sound” 149). Throughout the game/text, voices have disturbing, and unsettling effect that add to the overall message. Besides the sculptor’s or the women’s voices, there are some indistinctive, disembodied voices of women that are not introduced to the reader. Some voices reflect worry and anxiety of the speaker “it is late, isn’t it?” (Wilks, *Underbelly*), others reflect despair and loss saying, “Such pleasure I felt holding her baby. Should I be denied that? Why?” and “bad timing, it’s a matter of bad timing” (Wilks, *Underbelly*). Another commentary voice, like homodiegetic narrator, appears addressing the women “primitive creatures between rocks, what’s their chances? Then changing the addressee to the reader or the sculptor, saying, “What’s your chances?” (Wilks, *Underbelly*). Cavotta explains the significance of these voices, saying: “These voices are present throughout the text and will play one at a time or simultaneously, resembling the subconscious and only focusing on deep desires and worries”. The final voice in the game of a woman who dictates the reader “choose, choose”, with her threatening demanding tone, reflects a kind of urgency. The use of different mingled women’s voices in addition to background music that resembles the heart beat is very haunting and leaves a terrifying feeling in the reader. Bethany Alley describes the overall experience as “very dark and the whispers of the

voices were very eerie. The work was obviously intended to reveal the darker sides of a woman's life based on her struggles with work and her struggles with child birth".

All in all, *Underbelly* succeeds in incorporating different semiotic resources, "collaging a rich and often grotesque mix of imagery, spoken word, video, animation and text" (Wilks, "*Underbelly & Sister's Stone Carver*"). Haunting voices that replace the text in some parts, images either background images or flying randomly ones, and the sculptor's video all supported each other, adding more dimensions and strengthening the overall impact of *Underbelly*.

In conclusion, analyzing digital fiction from narrative, video gaming, and multi-modal perspectives has added new insights to these frameworks, emphasizing the mutual influence of technology and literary ideologies on each other. *Underbelly* is a unique example of digital fictional work that takes advantage of the internet options including cybertext ludic features, multi-modal affordance in a way that enriches the cultural and literary aspects. *Underbelly* balances literary traditions and the explorations provided by the new technology, bridging the gap between conventional writing and digital literature. Finally, it is a manifestation of cyber-feminism with its revolutionary way of revisiting disregarded women's histories. Throughout *Underbelly*, Wilks has managed with different tools to rewrite the female coalminers' forgotten stories, combining women's past suffering with contemporary harsh realities. In this way, digital fiction becomes a new tool for empowering women and affirming their solidarity in different ages.

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Endnotes:

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Digital fiction is used interchangeably with electronic literature throughout the paper<sup>1</sup>

