

Underbelly

by

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one volume plus CD

Underbelly

Abstract

A rich media fiction about a woman sculptor, carving a figure on the site of a former Yorkshire colliery, which is being landscaped into a country park. As she carves she is disturbed by a medley of unwelcome internal voices, triggered by her ticking biological clock, and also voices of women miners who once worked underground in the site's dark industrial past. The lack of options available to the 19th Century female workers is in stark contrast to the options available to the modern woman, yet the sculptor struggles to feel in control of her own destiny.

Voice-over drives this narrative created in Flash, while randomly programmed animated elements dramatise the tension between the interplay of chance and volition in the sculptor's life. Video of the sculptor at work - close-up, point-of-view shots of her hands carving - represent her conscious plans and artistic career. But the rectangular video frame is buffeted about, animated around the screen and frequently overwhelmed by darker imagery, representing her repressed desires and fears. At the climax, the viewer's point-of-view merges with that of the sculptor as the viewer is pressed to make the choice which the protagonist faces. At this point the linear story branches out into multiple alternative endings and each possible outcome is arrived at through a combination of choice and chance.

Underbelly explores themes of the mother archetype, womb and tomb, eros and thanatos, female sexuality and procreation, women and work.

Format and Technical Information

I created Underbelly in Adobe Flash CS3 using ActionScript 3.0. Although ultimately it is intended for web delivery, for the purposes of the dissertation it is presented on CD as a standalone Flash player application (aka as a Flash projector). There are two versions of the application - one for PC, one for Mac. On the CD they are titled thus:

Underbelly_Dissertation_PC.exe

Underbelly_Dissertation_Mac.app

To launch, double click the appropriate file (there are many other files on the CD which the application loads during play but you don't need to open those). The Flash player will open in its own window. You may watch the piece at full screen if you wish, but it is optimised for the given window size. Please note that sound is an integral part of the work.

There are interactive elements at the start and during the final sequence. These should be self explanatory. It is possible to interact with some of the random animation that occurs during the piece but this is not essential to the viewing experience.

When you have reached the end (there are end credits), quit to close.

Literature Survey

Over the past couple of years, and beyond, I have been excited and inspired by many creative works of new media but here are some that particularly resonated with my imagination and ideas when I began developing my *Underbelly* project. I immediately revisited Millie Niss's *Biological Time Clock*, which also explores the thorny issue facing many contemporary career and creative women of whether to have children and if yes, when and how before it's too late. Christina Goestl's *viva la vulva recoded* is another piece that represents female genitalia with delightful wit and invention. Both these works are very graphic in the sense of using diagrammatic or highly simplified, almost cartoon-like imagery and Goestl actually uses graphemes to symbolise genitalia. I wanted to create a more atmospheric narrative piece so I would need a different visual style. Therefore it was marvellous when I found the online *Anatomia* of the Thomas Fisher Rare Book Library, University of Toronto. Here was a wealth of anatomical drawings of the female reproductive organs and fetuses from the 16th to 19th Century that I could plunder. The images are highly detailed but also grotesque and, in some cases, quite fantastical.

I found further inspiration in viewing some animated films. Many of these are not works of new media, but since I use a lot of animated elements in my work, I find it valuable to look at more traditional forms of animation or experimental film-making. Jan Svankmajer's short films are a particular favourite because of his wonderful surrealism, his black humour and use of grotesqueries. Also many of his films depict dark underground worlds of one kind or another and in *Down to the Cellar* (1983), which charts a young girl's journey into that particular domestic underworld, coal figures heavily and is imbued with uncanny significance. I found a number of productions on C4's Animate Projects site interesting too. *Elephant* is deceptively simple - to quote the artist, Riccardo Iacono, the video 'involves throwing objects in public space'. I liked the way the thrown fabric or clothes become presences somehow still holding vestiges of life, inhabiting the otherwise 'dead' space, like ghosts. It is the way the mundane becomes uncanny that fascinates. *Purple Grey* by Sebastian Buerkner interested me because of its extensive use of close-ups of details in a room to suggest the subject's state of mind and obsessions. I intended to similarly use a 'shower' of close-ups of things seen, imagined or sensed by my sculptor character to express her state of mind and unconscious urges.

My main character being a stone carver, I also revisited Deena Larsen's *Carving in Possibilities*, for the way it depicts and makes use of Michelangelo's sculpture, *David*. I have long been fascinated by the virtual representation of stone carving. Such a solid, traditional, 3 dimensional and relatively permanent art form is the antithesis of digital new media and there's something poignant about that contradiction. I sensed this also in a more recent discovery, J.R. Carpenter's *How I Loved the Broken Things of Rome*. It depicts a female character in relation to a particular place and evokes a strong sense of the past and the present through relics, sculpture, broken things and the statements from other tourists from the past.

From the outset I intended to tell the story of *Underbelly* primarily in voice-over, so I was interested in how the speaking voice has been used in new media works. I've always enjoyed exploring the multi-layered voices in *Glory Hole* by Catherine Byron and Simon

Mills. This combines poetry and a poetic form of documentary whereas *Underbelly* would be a narrative piece. Nevertheless, I was hoping that I would be able to achieve a similarly interactive and layered soundtrack. This proved not to be possible in the time scale available (see Critical Commentary) but it remains an ambition for the project's future development. Another interesting use of voice-over is in *Cracked Cities* by Julian Konczak. Unidentified female voices express their thoughts and reactions to images of fragments within a cityscape. The viewer/listener is drawn into empathising with their interpretations even though one might have one's own, alternative interpretations of these snapshots. I was struck by how intimate and persuasive voice-over can quickly become.

Because I wanted to express something of the lives of past women workers underground in contrast to the sculptor working above ground 160 years later in the same location, I undertook a lot of historical research into 19th Century mining and women miners. Material from the testimonies collected by Ashley's Mines Commission of 1942 is quoted extensively on many historical web sites. The two that I found most helpful were *The Victorian Web: Literature, History & Culture in the Age of Victoria* and *Coal Mining History Resource Centre*. The latter was an invaluable source of 19th Century mining images too. The book, *By the Sweat of Their Brow: Women Workers at Victorian Coal Mines* by Angela V. John, now out of print, proved to be a great source for background reading and has a feminist slant with which I felt a particular sympathy.

Bringing me back to the present and with an eye on the future, I found *Shaping Things* by Bruce Sterling inspiring:

'A successful human lifespan involves a lifelong maneuver through a transmuting landscape of hierarchical, nonlinear, time-bound and inherently conflicted demands. It's a homeostatic tumbling with enough continuity to avert terrifying chaos.'
(Sterling, 2005:140)

Substitute 'e-literature' for 'human lifespan' in the above and this seems to me a good description of my creative ambitions for my interactive, nonlinear new media work - and the reason why I'm doing it, because life's like that.

Critical Commentary

Initial concept and genesis of the story

At the outset I intended *Underbelly* to be non-linear interactive narrative about a woman sculptor, whose unconscious sexual and emotional drives threaten to disrupt her conscious plans, which are almost exclusively concerned with her career as an artist. I wanted the structure and poetics of the piece to be concerned with navigation between two narrative worlds - the above ground story, representing her conscious plans, and the underground story, symbolising her unconscious drives and the female experience embedded in the site's dark industrial past. Here's what I said in my first draft abstract (13/03/08):

"I will create two distinct navigable story worlds, layered one on top of the other, with passage between them. Sometimes crossover between narrative regions will be caused by reader interaction, at other times it will happen randomly, as if the underworld is pushing through, the past breaking into the present, the subconscious intruding on conscious life, mucking things up. The reader navigates, explores, digs down, unearths clues and fragments - mining to find the meaning of the story."

However, in this iteration of the piece, within the time period available for the dissertation, I have been unable to fully realise these plans due to a number of reasons, which I will elaborate below, but mainly because it turned out to be a much larger scale project than I initially realised. Therefore what I am presenting for my dissertation is a rich media, predominantly linear version of the story which, at its climax, branches out into multiple alternative endings. But the vision I had at the outset remains my ambition for the future development of the project, so the version I am presenting now should be regarded as an experimental prototype.

Technical issues – creating in rich media

To date, developing the project has been a catalogue of ambitious technical ideas that I've

had to either jettison or find a compromise solution for because, by trial and error, I discovered the original intention was just beyond the reach of my current level of technical skill and knowledge, or in some cases, beyond my current level of graphic design skills. In embarking on *Underbelly* I was consciously taking on many new technical challenges – e.g. using video in Flash, progressively streaming lengthy external sound files, coding in Actionscript 3.0 – but some of the aspects of design and development that I had thought would be relatively easy proved to be much more difficult than I anticipated. With hindsight I can see that I underestimated the general difficulty of mastering a multitude of media, hypermedia and programming skills to the same intermediate/advanced level required to achieve what I originally envisioned for *Underbelly*. Time and again I came face to face with my own limitations as a sole writer-creator. I was simply unable to equip myself with the full range of high-level technical and creative skills I needed to realise my creative ambitions – at least, not in the time available. For example, because I wanted to create much richer imagery for this piece than I had attempted before, I knew I would have to improve my Photoshop skills - and I did, but it still takes me longer to achieve the visual results I want than it would a trained graphic designer. In order to keep on top of every other aspect of producing *Underbelly*, I found I just didn't have enough time to devote to extensive digital image editing. As with many other aspects of production, I had to simplify my plans.

Programming with Actionscript 3.0

In June 2006, Adobe introduced ActionScript 3.0 (AS3), which is a fundamental restructuring of the programming language for Flash. As such, it has a steep learning curve and because of this many Flash developers and designers have not yet adopted AS3 and are still coding in AS2. At the outset of developing *Underbelly* I debated whether to continue coding in AS2 or whether to bite the bullet and learn AS3. In the end, partly for the sake of my future creative development as well as the needs of this project, I decided on the latter. I knew it was a risk to take on such a technical challenge for my dissertation project but, with the ambitions I had for it, I knew I would have to learn a lot more ActionScript programming in any case, whether AS2 or AS3, so I felt I might as well make the leap now. At the time I had no way of knowing how difficult it was going to be but in

retrospect, despite that, I don't regret the decision because there are some clear benefits in using AS3. For instance, sound was always going to play a major role in *Underbelly* and AS3 allows much more sophisticated control over sound than previous versions.

However, there were many occasions when I doubted the wisdom of my decision. The problem is when you're a self-taught novice programmer you've no way of judging how much there is to learn, how deep the field is and how far you personally need to delve into it. The first difficulty is choosing the most appropriate source/s to learn from. The first source I chose, widely regarded as the Flash developer's bible, *Essential ActionScript 3.0* by Colin Moock, was too advanced for my level. Eventually, after much struggling, I found a combination of *Lynda.com* online courses and *Learning ActionScript 3.0: A Beginner's Guide* by Shupe and Rosser, better suited to my needs. Even so, I found it difficult to judge how much AS3 I needed to learn to achieve my objectives for *Underbelly*. Before I realised it, I had strayed too far into object oriented programming (OOP), the realm of the Flash developer, which, along with all the other technical challenges I had to contend with, was beyond me at that point. What I didn't fully understand at the time is the difference between a Flash developer and a Flash designer. A developer creates/programs primarily in code, whereas a designer creates in the graphical integrated development environment (IDE) of Flash and may not write any Actionscript code at all. Then there are a group of hybrid designer-developers (aka devigners) who do both, which is where I am, but I'm not very experienced yet.

I started learning Flash less than 4 years ago and until embarking on the CWNM MA course, I wasn't using it extensively. Since then I have created all of my course work, partly or wholly, in Flash. After my earlier experience of repetitively writing ActionScript code, especially for my previous two works, *Tailspin* for the Fiction module and *Fitting the Pattern* for Create Non-Fiction, this time I wanted to write more efficient code. For example, I wanted to create reusable custom classes for *Underbelly*. This would have been a great timesaver, but the time cost of becoming sufficiently conversant in writing custom classes (which is one step away from full OOP) proved to be too great and was defeating the objective. Reluctantly, I had to return to my more tried and tested methods of writing ActionScript on the Flash timeline - another disappointing but unavoidable

compromise.

Design concepts - the problem of the map

Being able to combine rich multimedia is one of the main attractions of working in Flash, but the more media you use, the more complexities you have to contend with. Structural and visual design provide the foundations for an interactive story but it's often a chicken and egg situation - which comes first, the story or the design? Which should be developed first? Whatever the answer, and I'm not yet experienced enough to have established a consistent development process, I find I can't settle into a piece until I have found an overall design concept I'm happy with. Unfortunately, this was one of the aspects I had most trouble with for *Underbelly*. Right from the beginning of the MA course, with my Laboratory research project, *Exploring methodologies for non-linear story development*, I had been interested in the metaphor of maps and map-reading for writing and reading non-linear interactive narratives. I wanted to create stories for the reader to explore, and still do. The subject matter of *Underbelly*, with its above ground and underground realms, seemed to be an ideal opportunity to use a visual map design. My idea was to create a large map for the reader to navigate that would offer interactive story elements along the turning, branching and looping paths. This would be a map of a mindscape as opposed to landscape. However, at this stage, I found that my technical and design skills were inadequate for the mammoth task I had set myself. So, after much struggling, I had to shelve the expansive map idea. Also, at the time, it didn't seem to be crucial because the idea had never been to reveal the map in its entirety to the viewer.

Another design feature I wanted was to simulate a 3D effect of tunnelling down which would be rich in associations to do with mining, tunnelling underground and also entering or passing through the reproductive organs. However the 3D effect I had in my mind's eye requires sophisticated 3D animation software and skills I don't currently possess. I knew I couldn't take on anymore technical challenges and for some time I tried to explore other ways of achieving a 3D-like effect but my results were such a pale imitation of what I really wanted that in the end I abandoned that idea. Instead I decided to exploit the imaginative possibilities and mystery of blackness - things appearing out of and disappearing into

blackness. I hoped this would also give a sense or illusion of travelling through some kind of internal or underground space, metaphorically. I also felt that blackness was appropriate for an amorphous entity such as a mindscape and that it would be particularly suited to the use of voice-over.

Writing for spoken word in Flash

As I found with my previous two Flash pieces, the combination of technical challenges, learning new skills and tackling an ambitious project within the timescale, meant that I inadvertently postponed working on the actual story text – in this case, the text for the voice-overs. Once again there came a point where I had to set aside my technical issues and start working creatively again with the words – and once again I found it was useful to step away from the computer and work with the printed words on paper – editing the text, cutting it up, colour-coding and shuffling the pieces of text around on my table until I found the right kind of story shape. This time the words would be spoken so I had to think about character, performance, timing and rhythm too. I had to rehearse, perform, record and listen to them, then follow through with further editing and refining in the sound mixing stage, and then later again when I began working with the soundtracks in Flash.

Initially, I intended to use voice-over for the character of the sculptor only, her internal thought streams, and I had thought I would present the testimonies of the 19th Century women miners as text, but later I decided to perform the whole story primarily in voice-over. It was always my intention to perform the voice-over myself and at first I wasn't confident that one voice could perform a variety of 'characters' convincingly enough, but later I felt that because all the voices are located within the same mindscape, from one individual, it would be more fitting to have one voice perform all the 'characters' or aspects of the sculptor's psyche. I hoped it would also reinforce the idea of the women miners collective testimony as an expression of her subconscious – spirits from the past inhabiting her mind, haunting her, disturbing her, confusing her, and that the historical characters would not be taken solely as counterpoint to the sculptor's situation as a contemporary woman.

What happens when voice-over drives the storytelling

When I started developing *Underbelly* I wanted to explore the possibilities of sound in Flash and expand my new media storytelling repertoire. I enjoy performing and I wanted to see what I could do in this area. I had no idea of the impact of this decision, its knock-on effects on areas such as navigation and interactivity. Initially it seemed to me I would simply be enriching my storytelling, perhaps making it more accessible for the reader/user, or to be more accurate, in this case, the listener/user. I had no idea that there would be other repercussions to this decision that would have a major impact on the development and structure of the project.

It hadn't particularly occurred to me before that by and large navigation is a visual thing – or how much navigation depends on visual information. The role of sound in navigation tends to be as an enhancement to visual cues, it is very rare for navigation to be driven by audio cues alone. *Glory Hole* by Simon Mills and Catherine Byron is a piece where the navigation is largely driven by sound, but in that case the whole piece remains within one visual region so structurally, it is much simpler than what I intended for *Underbelly*, and it's a smaller scale piece.

Once I had decided to abandon the map as my main navigational and narrative structuring device, I had unintentionally discarded the system of visual references that my audio depended on for the non-linear nature of my narrative to work. I had committed to the idea of voice-over driving the story but, without a visual system for anchoring the voice-over in a navigational sense, there becomes little point in telling a story in a non-linear way. The story could still be told that way, but unless the listener comes back to listen again, repeatedly, how do they know they are listening to a non-linear story? So it follows, if the listener is unaware that what they're hearing is non-linear, is there any point in telling the story in a non-linear way? Is it worth the extra work required to program it if there is no added meaning for the listener because they have no way of detecting its non-linear structure? Throughout the MA programme, experimenting with the possibilities of non-linear narrative had been one of my main research areas, so it was particularly disappointing to have to concede that there was no point in pursuing that avenue of

investigation much further with this particular project.

Beginnings - the narrative hook

Finding a good beginning, a strong narrative hook is always a challenge with in any medium. Creating works in new media presents a whole new array of ways to hook the reader/user. With my previous two pieces, I felt relatively confident that I could use the novelty of the interface design and/or some intriguing animation to hook my reader, in addition to more conventional storytelling techniques, but perhaps I relied a little too much on that because I found the tactic didn't work so well with *Underbelly*. The first interactive opening sequence I designed, wrote and programmed failed to draw the reader in. I had presented the user with an image of stone to chip away at to break into the story but, perhaps unsurprisingly, in effect this was too much of a block. So, back to the drawing board, where I came up with a speaking stone face enticing the listener/user to pick up the chisel and enter the story.

The other challenge of the opening sequence, again common to all kinds of storytelling, was how to deal with the exposition, which in this case was how to establish the location of the sculptor, i.e. that she's carving on the site of a former colliery. Trying to slip this information across via the sculptor's voice-over proved clumsy and slowed the pace of the story too much, so I decided to set the scene and context with the equivalent of a preface or, as it would be in cinema, on-screen text 'intro' sequence. This means I now have two openings - the 'intro' text and then the enticement to interact. I'm not entirely happy with this, but for web delivery the 'intro' screen will serve as a kind of book cover or poster and also as a preloader, so in that sense it's useful.

Endings - alternatives and random outcomes

Some aspects of life, such as whether a woman becomes pregnant or not, are a lottery to some extent or other. It was important to me to incorporate this quality into the ending of my story. To set this up, I used randomly programmed animated sequences throughout the piece and the motif climaxes with the 'spin the wheel' or 'wheel of fortune' sequence at the

end. I like the conflict here between the inevitability of having to make a decision, even if the decision is to leave it to chance, and the inevitability of chance playing its part in the outcome. This interactive ending shows the potential of how I want to develop *Underbelly*, particularly in the point-of-view elision between the protagonist and the user/reader/player.

In conclusion, I have learnt a vast amount about what it entails to create a rich media, interactive narrative. I take heart from the truism that one can learn more from one's failures than one's successes. One of the most important things I have learnt is that, if you are embarking on an ambitious, sizeable project, then a major part of the work needs to be devoted to the structural design and considerations of how the user will navigate and interact with the piece. Also, importantly, what meaning the interactivity will carry. When I began *Underbelly*, I knew what kinds of meanings I wanted my interactivity to elicit but I had not adequately worked out how to achieve it or how the navigation would work given that it became a piece driven by oral performance. Visual, interactive and navigational design are as much a part of the writing/creating as are the words, whether spoken or written.

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