

A close-up photograph of a woman's face, looking directly at the camera with a serious expression. The image is slightly blurred, giving it a cinematic or artistic feel. A large, faint, semi-transparent watermark consisting of the letters 'G' and 'T' is overlaid on the center of the face. The text is white and serif, with a slight shadow effect.

*Gaming,
Uncanny Realism*

*Technical
Demonstration*

David Surman



Heavy Rain: The Casting

On camcorder we see 24-year old actress **Mary Smith** enter the casting room. She paces toward the stool sitting in the centre of the frame as the camcorder comes into focus. The off-screen voice of an unseen casting agent (perhaps the director) asks her to take a seat. She explains that she has never received any formal acting instruction, but quickly adds that she loves to watch movies and has learnt much from them. We learn that she has had a few bit parts here and there, but that she is always ‘...*too tall, too short, long hair, [that] there is always something wrong with...*’ her. The camera shifts its close up from face to hands and back, then zooming out to frame her in the mid-shot. She has learnt the lines she is to deliver, and the off-screen voice asks her to begin. A clapperboard enters from the left and ‘action’ is called.

The image fades to black and back to reveal Mary sitting in a kitchen, the shot matched to the composition of the casting room. The user interface of the camcorder is gone and now we see her in a full cinematic frame. She begins her soliloquy to the camera. In it she recalls a relationship, and her rhetoric situates you as her lover. She describes your chance meeting, whirlwind romance, and later the regretful collapse into domesticity of an affair gone stale. For Mary bills and necessities displace dreams of love and happiness. Outside a rainstorm rumbles, and extradiegetic music describes the growing suspense of the scene. She describes how the discovery of your infidelity drove her to contemplate suicide. Simultaneous to this, in the present tense of the scene, she takes a gun from the sink. She places the gun to her head, and sheds a tear, but then turns the gun on you – toward the camera. Instead, she has decided to kill you, saying ‘...*I sentence you to death for turning my life in a soap opera cliché...*’ with an expression of grim resolution. As the trigger is pulled the screen fades to white, and we cut back to actress Mary Smith in the casting room, her fingers gesturing to the camera in analogue of the gun she previously held. She leaves the room, and casting agent and director discuss her performance. One (presumably the casting agent) thinks she did pretty well. The director cuts in to definitively say that she is ‘too tall’ for the role.

So ends *Heavy Rain: The Casting* (2006), a ‘technical demo of a virtual actor on playstation®3 [a] rolling demo in real time 3D’ by software developer **Quantic Dream**.⁶ Mary Smith doesn’t exist, but is an amalgam of the motion-captured performance of real life actress **Aurelie Bancilhon** and the work of various graphic artists and programmers, directed by studio founder **David Cage**. The entire sequence is computer generated, though we are in no doubt of that fact since the piece is dramatic and reflexive in its staged photorealism. In an interview with **Edge** magazine Cage suggests that

...realism is the first step in better understanding emotion. What we learn will help us create better non-realistic characters in the future. And, on the other hand, I also believe that realism makes our media more instantly accessible to a wider audience. A lot of people have found it hard to be interested in characters that don’t relate directly to what they know. (Edge 2006: 50)

Heavy Rain: The Casting is a curious video clip, existing somewhere between what we know to be a technical demonstration and a movie trailer. The term ‘technical demonstration’ brings to mind mundane sequences of high fantasy content usually employed to show the capability of new technology by companies such as **NVIDIA**. Such sequences are largely devoid of dramatic action, and serve to describe in form the latest in graphical capability. *Heavy Rain: The Casting* is novel in that it eschews these mundane strategies to make a statement about games design as it enters its so-called ‘third generation’.

With massive real time graphic capability in commercially available domestic hardware, so games must recognise their contiguity with film and other entertainment media present in the home. Cage is quick to recognise that in both representational and narrative sophistication games fall short of the complexity of their cinematic counterparts. He remarks that '[t]here are different aspects in creating believable complex characters – their visual appearance is just one of them. Their characterisation in the script, the way they move, the way they react, the way the player can interact with them – these are just as important as how they look.' (Edge 2006: 50). Speaking less conceptually and much less optimistically, he later suggests that '[t]he quality of the story has never been a real priority in this industry. Videogames were originally invented by programmers, before artists and level designers took the lead. Very few companies have a writer in their core team because it is still not considered as an important element of a game – important in the sense that it will sell more copies.' (Edge 2006: 50).

As a representational media, games have their own realist trajectory. Film theorists **Robert Lapsley** and **Michael Westlake** write that '*questions of realism were to acquire a centrality in this politicised aesthetics for the overwhelming reason that the realist text – in whatever of the many modes of realism it exists – has a distinctive, even unique, epistemic status: it represents things as they are, it claims to tell the truth*' (Lapsley & Westlake 1988: 156), and such a statement is equally true of videogames' realism. In recent years controversy about the social consequence of games have arisen in response to the growing graphical capability of games technology and its increased integration and visibility in everyday life. Violent or sexuality enacted onto virtual hyperreal bodies, and the challenge it brings to our notions of verisimilitude, problematise the use of computer animation and gaming technology (see Bouldin, 2005). Hyperrealistic models of the human form succumb to manipulation, enhancement and erasure at the hands of players. However, interactivity has yet to become a language and occupies the space between the literacies and voices we are familiar with as subjects in the information society; as essential as it is invisible, like mortar between bricks. Cage writes that rapid technological innovation actually hinders the creation of a coherent language of interactivity.

What is important to understand is that interactivity still needs to discover its own language. It is still very difficult to create an experience merging interactivity and storytelling. There are major issues, especially regarding interface, that still have to be solved. It is difficult to invent a language when there is no pen and when a new type of paper is being invented every week. (Edge, 2006: 50)

Unlike Mary Smith, there is little opportunity to consider the appearance of our hyperreal double in commercial-off-the-shelf games, since historically we see them at a distance, and in settings – whether military, fantastical or otherwise – in which play dictates that the body be places in the flow of continuous action. The body is destroyed and resurrected over and over in play. For instance, an unseen grenade explodes another player across the game screen in *Battlefield 2* (Digital Illusions CE/EA Games 2005), perhaps with 'rag doll' physics to replicate and caricature its real-life fragility. *Fig. 1*

Hybridisation

The ambiguous combination of drama, photorealism and technical demonstration in *Heavy Rain: The Casting* has another important context relating to changes in the structure of the games industry and the dominance of player-characters within an evolving notion of genre. Dating from the release of the Sony Playstation in 1995 and the consequential change in the landscape of games development and marketing, the classical spectrum of game genres has



Splash image Heavy Rain: The Casting © Quantic Dream 2006
Fig. 1 Battlefield 2 © Digital Illusions CE/EA Games 2005

changed radically, in particular with regard to the defining characteristics of those genres. Certain genres have become largely obsolete, such as the point-and-click adventure, or their core mechanic has been integrated into other more dominant genre formations to create complex ‘hybrid’ or ‘meta’ genres. Hybrid genres combine together a number of defining gameplay mechanisms to form larger formations. The development and publication of these games require larger budgets as a consequence of this complexity of mechanic, and inevitably such games are associated with games arising from film franchises, or as sequels to particularly successful releases or intellectual properties – the preserve of the so-called superstar developers.

The integration of a variety of technologies in the Sony Playstation and Sega Saturn consoles – in particular Cd-Rom data storage and real time computer graphic rendering capability – meant that games shared for the first time a set of production practices common to film animation and the emergent field of motion graphics, particularly in the use of computer animation and modelling software of the period, such as 3D Studio Max. **Lev Manovich** summarises that ‘[c]omputerization of all areas of moving image production created a common pool of techniques, which can be used regardless of whether one is creating motion graphics for television, narrative feature, or a music video’ (Manovich, 2006: 25). Games design can clearly be added to Manovich’s list. Game genres had evolved previously in a production culture where their aesthetic was distinct in production and setting from other contiguous media forms. Design in the ‘console wars’ period, concluding with the early 16-bit hardware of SEGA and Nintendo, had exclusively oriented around the production of 2D ‘sprites’. The ‘deeper structures’ of software development was idiosyncratic in its use of software often developed ‘in-house’ and indeed representative of the relative maturity of the development house. Game genres arose as a consequence of the specificity and insularity of games development, and while themes and conventions were lifted from film and media, these ‘surface level expressions’ connected to a

largely independent infrastructure of development practices. In this period gaming franchises were in the minority and were frequently critiqued in the gaming press of the period, when they did emerge, for their failure to employ the gameplay mechanics of successful titles indicative of a given genre.

With the advent of common production practices and software across film, animation, motion graphics and games design, the specificity of games-as-games connected to idiosyncratic production methods was now absent in the shaping of production.

Two consequences arose from the commonality of certain production methods and technologies, and began to shape games design through the 1990s. First, games would inevitably share the qualities of film and media as ‘talent’ moved horizontally between the industries utilising this new common skills base. Computer animators and programmers could be found migrating to enjoy substantial financial incentives as companies in the various sectors vied for those with the computer literacy and software skills required for development in this new hybridised culture. Secondly, with the removal of the frame of technological specificity through the opening out of development processes, game form was necessarily required to consciously think through what might be specific to the medium, since there was increasing and irreversible overlap with the production ethos of contiguous media forms. The impact of this moment on gameplay and aesthetics – of ‘what makes a game a game’ – is still being felt, as it plays out in different ways on different gaming hardware, often through the lens of gaming brands and their historical precedents and associated discourses. For instance, what is the apotheosis of the Nintendo, SEGA or Microsoft game, in the wake of convergent production practices and the intersection of media industries?

Manovich has described this movement from the digital-cinematic point of view and is worth quoting at length for his lucid summary of the consequences of such media hybridisation:

The existence of this common vocabulary of computer-based techniques does not mean that all films now look the same. What it means, however, is that while most live action films and animated features do look quite distinct today, this is the result of deliberate choices rather than the inevitable consequence of differences in production methods and technology. (Manovich 2006: 26)

And further:

Around the mid-1990s, the simulated physical media for moving and still image production (cinematography, animation, graphic design, typography), new computer media (3d animation), and new computer techniques (compositing, multiple levels of transparency) started to interact within a single compositing environment – either a personal computer or a relatively inexpensive graphics workstation affordable for small companies and even individuals. The result was a new hybrid aesthetics that quickly became the norm. (Manovich 2006: 26)

Connecting back to the question of realism and to shed light on our discussion of Quantic Dream’s *Heavy Rain: The Casting*, one consequence of post-Playstation hybridisation is particularly important. On earlier systems, computer animation technology had been used to produce complex visualisations for games. The hardware was not capable of producing, either in real-time or as FMV, those graphics used in promotion of the game. Perhaps the most significant example was *Rise of the Robots* (Mirage/Time Warner Interactive 1994), which appeared on

virtually every console in circulation during the period immediately before the release of Sony Playstation and SEGA Saturn. The game was heavily promoted on television and in the gaming press using the enigmatic image of the cyborg protagonist ECO35-2 of this robot versus robot beat-'em-up. The shiny contours of the cyborg body perfectly complimented the point in the development of computer-generated imagery in circulation at the time. However the production method for the image described differed from that of the in-game graphics – for the reason mentioned above. Computer generated imagery had evolved in advance of games technology, and as such *Rise of the Robots* was marked by a massive discrepancy which led to (together with problems of AI and gameplay mechanic) its universally negative critical reception.

Rise of the Robots did however, alongside titles such as *Killer Instinct* (Rare/Nintendo 1994) of the same year, set a precedent for the promotion of games using still images of highly rendered computer-generated representations of the games player-characters. Debates around the realism and function of hyperreal game characters were yoked to this new marketing strategy, and in particular circulated around *Killer Instinct* heroine **Black Orchid**, whose large breasts and oriental 'mystique' made her the first of a succession of clichéd fantasy images to occupy this new gaming image culture.

Successor to Black Orchid and apotheosis of this phenomenon is **Lara Croft**, protagonist of the *Tomb Raider* series (Core Design/Eidos 1996 – present). The promotion and distribution of her image has been widely debated in game studies and media culture more generally. Looking at Lara circa 1996 represented a break from the defined norms of games marketing. With the release of *Tomb Raider* on Sony PlayStation and SEGA Saturn, the software technology used to create the in-game graphics and model the promotional images was in principle the same. Stark differences still remained regarding the level of resolution between these two images, but the shift to a common production base had been made. The heavy promotion of Lara as a celebrity independent of the game meant that her image was in widespread circulation, and this in turn motivated a mode of looking at progressively realistic human computer renderings. While she is in almost constant motion in the gameworld, outside of this space (in the publicity she elicited) Lara is put forward as a motionless still life, and we are encouraged to scrutinise her creation. Perhaps for the first time in 1996, in this stillness, we might think of photorealism, representation, and the uneasy predicament this newly sexualised and humanised mode-of-address.

Stillness is a quality common to the character-creation screens of contemporary fantasy role-playing games such as *The Elder Scrolls IV: Oblivion* (Bethesda Game Studios/ Bethesda Softworks LLC & 2K Games 2006), which featured a sophisticated process through which the player modelled the appearance and physique of their player-character. *Fig. 2* Like Lara and the viewing practice she introduced, *Heavy Rain: The Casting* is a demonstration of that which is rarely seen in actually gameplay, the player-character in stillness offered up for scrutiny by the player. Its rhetoric, through the close up on the hardest parts of photorealistic modelling (accurately executed eyes, hair, mouth and hands), suggest that we should take this clip to be a statement of intent in our hybridised production culture, that games technology intends to encroach on the representational turf held by my so-called 'virtual cinema': the modelling and use of synthetic or virtual 'actors'. Photorealism achievable on domestic gaming technology is certainly the principle focus here, yet this technological statement is nested in the less mundane context of dramatic action. The use of setting (the casting itself), cinematic cutting and a rousing music score;



Fig. 2 *The Elder Scrolls IV: Oblivion* © Bethesda Game Studios / Bethesda Softworks LLC & 2K Games 2006



Fig. 3 *Final Fantasy: The Spirits Within* © Columbia Pictures

in support of a dramatically delivered soliloquy; suggests that graphic realism is not, and should not, be enough for third generation games design. Perhaps the message of Mary Smith's performance is that a hybridised games design culture must by necessity incorporate the languages of the media with whom it shares its audience into its form, to more accurately reflect the common production infrastructures that now underlie its function.

The melodrama of the scenario and photoreal aesthetic come together in an uneasy mix that is however productive in its novel move away from the conventions of the technical demonstration found at E3 where the sequence was initially shown. I have established that it is certainly political in its aesthetic, not least

for its call for an integration of film and game form. There is a tension however, between formally negotiating the 'look' of the computer-generated image and our immersion into the dramatic action as it unfolds. This predicament is common to those animations styled in a hyperreal way, which have penetrated mainstream Hollywood in films such as *Final Fantasy: The Spirits Within* (Hironobu Sakaguchi, 2001) as well as gaming culture. Fig. 3

Uncanny Realism

Cognitively speaking, perhaps the greatest feast for eye is the face of another. With a highly developed frontal cortex for decoding and defining our social emotional world, our comparatively large brain distinguishes us from our closest animal relatives. The eye leads in both our rational and emotional encounters of the world; in everyday life it distinguishes raw from cooked, ripe from unripe, and health from illness. Slight variations in the gait of an individual walk are immediately intelligible as deviations from a perceived 'norm', and we never become completely accustomed to such differences – health and its

ensuing expectations are imprinted deeply in our minds. Asymmetries, imperfections and absences from the culturally agreed consensus of a 'correct' body are meaningful insofar as they motivate in us almost unconscious judgements which we must rationalise and moderate. (see Grodal, 2002: 67 – 91)

The simplest caricatures reveal how primed we are to find our likeness in abstraction, as does the childhood fascination with finding primal faces in the patterning of wallpaper and upholstery. At the other end of the spectrum from the abstraction of simple caricature we find the mimesis of realist painting, photography and digital imaging. Here, our drive to read the 'correctness' of humanlike representation is evoked. We do not forgive these images any imperfection. We scrutinise them with the same voracious eye, hungry for beauty and symmetry, that we engage in our social lives.

And so the image health underlies the critique of realism in representational media. We know the proportions of the face and body so completely through the experience of everyday life that a highly realistic image of human form must comply with these conventions, or else be felt on a deep cognitive level to be unsettling or unacceptable.

Perhaps Mary has more in common with her ECO35-2 cyborg predecessor than is initially apparent. The intimate sense evoked by photorealism is certainly comparable to that brand of familiar and haunting robot of the Japanese *Karakuri Ningyo* tradition. Literally meaning 'mechanical device to tease trick or take a person by surprise' the *Karakuri* is an automata with the outward appearance of a doll, which have been in production since the seventeenth century. Their name and curious form implies hidden magic at work in their production and function. Shifting to the present but remaining mindful of the Japanese preoccupation with haunted machines, Japanese computer-imaging culture provides perhaps the most telling text against which we might understand *Heavy Rain: The Casting*, the short films of director **Hiromi Hayashi** featuring the invention of acclaimed computer animator **Kenichi Kutsugi**, 'virtually real idol' **Yuki Terai**. In a short film that is significantly similar to *Heavy Rain: The Casting* named *A Life* (Hiromi Hayashi, 2000) Yuki 'reflects on happier times'. In it Yuki is restless in her apartment, the image of an unmade double bed symbolising perhaps an absent partner or recent break up. We see Yuki dress herself in an evening gown, and put on make up. She then reveals a gun that she gestures at the camera mocking the movement of gunfire over and over. The three sequences are inter-cut together in such a way to disorient the viewer within the film space. The sequence then resolves itself in the juxtaposition of two shots of Yuki dressed and made up, both from a worm and bird's eye-view. She then places the gun to her head, and as the film ends and cuts to black we hear a gunshot.

Yuki Terai is a significantly older virtual actor than Mary Smith, and yet there are striking correspondences in the narrative line of the two short films. Representative of the prehistory of Japan and its relationship to automata Yuki is doll-like even by the standards of the period in which she was made (remembering **Aki Ross** of **Hironobu Sakaguchi's** *Final Fantasy: The Spirit's Within* was made a year later). Yuki is clearly made in the spirit of the *karakuri*, to be both entertaining and disquieting in equal measure. The same sentiment applies to Mary Smith in watching *Heavy Rain: The Casting*, though without the pretext of the *karakuri ningyo* the

double resonance is perhaps not so deeply felt, or is rather displaced into debates about the possible effects photoreal representation, without due consideration of such aesthetic complexity in itself.

In his 1970 paper 'The Uncanny Valley' robotics expert **Masahiro Mori** conceives of a moment, in the development of increasingly familiar and humanlike robots, where our sense of fascination and investment gives way to unease and displeasure. In his own words: '*I have noticed that, as robots appear more humanlike, our sense of familiarity increases until we come to a valley. I call this relationship the 'uncanny valley'*' (Mori 1970: 33). To illustrate to us this moment of collapse, where a verisimilitude gives way to a crisis of definitions, Mori cites the corpse, zombie and prosthetic hand as potent symbols of his concept. Mori's subject of robots is to me interchangeable with the photorealistic computer generated characters I have discussed thus far, and his ideas can help us to make some closing statements about their impact.

In a second move, Mori suggests that should a quality of movement be added to such 'things', the curved line of his diagram (describing the ascent of believability, the plummet of uncanny displeasure and then the ascent to the ideal healthy living human) is greatly exaggerated. We have noted stillness and movement as significant qualities in defining the new promotion and marketing of celebrity player characters. In stillness Lara is uncannily real, her sexuality and complexity is made most apparent. To date, when she moves the model deployed in the gameworld is an approximation of this high rendered magazine Lara. She ceases to be uncanny or unsettling because gameplay, while adding movement, distorts the lens through which we look at Lara since her exploits are so fantastically epic in scope. She ceases to be the familiar object of female objectification (albeit virtualised), and becomes an object of impossible agility and superhuman endurance, remembering her narrative differs little from the exploits of referent franchise *Indiana Jones*.

The uncanny is also a concept that circulates in the psychoanalytic theories of **Sigmund Freud**, '*...that class of the frightening which leads back to what is known of old and long familiar*' (Ferrell 1991: 131). Mori's examples – the corpse, zombie and prosthetic hand – are not dissimilar to the category of things to which Freud attributes an uncanny quality. For Mori, the uncanny is a design concern, a detour in the linear development of progressively humanlike robots, since '*... human beings themselves lie at the final goal of robotics, which is why we make an effort to build humanlike robots*' (Mori 1970: 33). If the magic of the *karakuri* automata prevails in contemporary hybridised computer imaging, then perhaps a component of it exists in the photorealism of clips like *Heavy Rain: The Casting*. Perhaps what we experience in viewing this particular brand of uncanny realism is a variant of the familiar notion of magic or (magical) realism. **Lois Zamora** and **Wendy Faris** write:

An essential difference, then, between realism and magical realism involves the intentionality implicit in the conventions of the two modes ... realism intends its version of the world as a singular version, an objective (hence universal) representation of natural and social realities – in short, that realism functions ideologically and hegemonically. Magical realism also functions ideologically but ... less hegemonically, for its program is not centralizing but eccentric: it creates space for interactions and diversity. In magical realist texts ontological disruption serves the purpose of political and cultural disruption: magic is often given a cultural corrective, requiring readers to scrutinize accepted realistic conventions of causality, materiality, motivation. (Zamora and Faris 1995: 3)

Heavy Rain: The Casting, while melodramatic, does not imply anything of the adventures familiar to players of *Tomb Raider*. Mary Smith breaks from the tradition inspired by Lara in the domestic and plausible setting of her kitchen sink drama. Her story of infidelity and rage doesn't challenge us to rethink what she may or may not be physically capable of (no wall climbing, combat rolling or back flipping here). If any aspect is challenged it is our ability to situate an emotional and psychologically driven player-character within the politicised aesthetic of an increasingly hybridised digital visual culture. It also challenges us to rethink game realism outside of mundane economic notions of production differentiation, and to interrogate games aesthetics alongside the contiguous media that inform its history, form and contemporary orientation.

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All links: www.swanquake.com/usermanual/DavidSurman

Biography

David Surman is senior lecturer in computer games design at the University of Wales, Newport. He teaches modules in history, critical theory and the creative process for the BA (Hons) Animation, BA (Hons) Computer Games Design and MA Animation courses. His research interests centre on digital media aesthetics, the phenomenology of play and national discourses in videogames. He has lectured internationally on games and play, most recently at the Universities of Melbourne, Tampere and Urbana-Champaign, and is a member of the Synergy games research group at Newport. He is and editorial board member for the peer-reviewed *Games and Culture*, and *Animation: an Interdisciplinary Journal*, for which he is also reviews editor. He is an international programme committee member and games specialist for the Media@terra annual arts and technology festival in Athens, Greece. He is currently writing *The Videogames Handbook*, a book-length study of contemporary British games design.