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Empress's New Clothes

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Ethereal installation and performance works have evolved through use of 2D and 3D computer graphics (CG), and motion capture technology. The work reflects the evocative nature of material, informed by contemporary and historical textiles and dress. Former physical process and practice are referred to both in terms of the textile/ garment form, the choreographic body movement and the invisible body image, absence and presence (1).

[Fig 1]

Since graduating in 2000 (2), further technical enquiry of this work has been necessary within a research context as software (SW) and hardware (HW) developments have taken place parallel to working methods. In this time the cost of digital media has dropped dramatically, SW and HW tooling has become more accessible and it has been possible to apply established material skills, within a broader frame of research and visual art practice. This has necessitated a shift from working as a solo maker, collaborating/working with a range of individuals, institutions and industry. Most recently an AHRB (3) Innovation Award supported 3D CG animation and 'real-time' enquiry of textile/ garment forms working within contemporary and historical contexts. This funding enabled collaboration with the Museum of London, fashion designer Shelly Fox, 3D CG computer graphic operator Mike Dawson, movement designer Ruth Gibson and Vicon motion analysis. Specific historical and future fashion enquiry has enabled substantial advancement of both tools and medium and the establishment of links that will facilitate ongoing work within a broader framework. The use of 3D CG in representing 'historical' dress, for example, has explored bringing to life a garment form within a museum context and the values of this kind of exercise. Once textiles and dress enter this type of environment, there are constraints on the handling of such objects. So for example, garments won't be worn again and various handling policies are required. In many museums only a small number of works will be publicly exhibited due to a lack of space.

[Figs 2-3]

3D CG tooling combined with textile/dress knowledge enables the construction and animation of a piece that begins to explore the kinetic behaviour of a garment in its moving form, the characteristics of the material and how it would have been moved within. The result being a believable visual experience that: operates alongside the physical object; may function in the absence of dress that may be particularly fragile and no longer possible to exhibit; has the potential to reach new audiences through the internet. Throughout the period of the research, curatorial staff from the Museum of London were particularly engaged in the possibilities of exploring a range of issues that in relation to the CG processes wouldn't otherwise be possible. These included: issues of poise and etiquette defined by the motion character, based on written records relating to the period of a particular piece; the use of props, accessories to enable human movement analysis and resulting data.

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[view as pdf](#)

[Fig 4]

The potential for this work is far reaching, using both CG animated and 'real-time' techniques. A one day workshop which facilitated an audience of 160 people from the age of seven upwards, was particularly successful in engaging young minds, linking 3D CG material with physical material issues.

[Fig 5a and 5b]

3D CG tooling has also been explored beyond simulation to create or define new methods of design in a contemporary fashion context. Many limitations and defaults in using computer graphics appear because the processes are constantly compared to physical processes. It is possible, however for the anomalies of the medium to come into their own and provide potential media and processes for designers to create screen based works that achieve 'the extraordinary'. These may not reach the high street in a true form, but the most avant-garde and creative of 'catwalk' fashion rarely does. In the most extravagant sense it may exist solely within a catwalk context but will inevitably influence production for high street and the range of commercial collections inbetween. This is where designers such as Alexander McQueen and Hussein Chalayan create both the unobtainable, and perhaps the unwearable. 3D CG has the potential to be explored as a medium on this level. The attainment of CG skills is not easy, particularly in relation to building garment forms, however the research has shown that it is possible for the designer and a CG operator to develop a dialogue to evolve concepts and new forms of practice. Working with fashion designer Shelley Fox, the ARHB Innovation award supported enquiry of how this type of dialogue may be developed to create 'future fashion'. In both historical and contemporary contexts, research up to this point proffers ongoing lines of enquiry.

[Fig 6]

Current investigation includes using the digital methods outlined, as a form of guise, to explore gesture as an expressive form, presenting a portrayal or self-portrayal, incorporating structural notions of absence and presence. Visual reference to the form and movement of the body, outlined by the kinetic nature of the garment, which is deliberately rendered as a cast, may define a character. The intention is to create an autonomous work, a highly 'crafted' digital piece, where the CG medium truly evolves as a medium in its own right, the object remaining onscreen. Further images of work past and present can be found www.researchatcsm.com/janeharris/

Credits:

Mike Dawson

Ruth Gibson

The Museum of London

Central Saint Martins College of Art and Design, University of the Arts London

Arts and Humanities Research Board (AHRB)

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Fig 1

'Portrayal' 1998-2000.
Artist Jane Harris,
3D CG Mike Dawson,
Performer Ruth Gibson.



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Fig 2
'Empress's New Clothes',
Museum of London 2003.
Artist Jane Harris,
3D CG Mike Dawson,
Performer Ruth Gibson.



Fig 3
Movement analysis / motion capture.
Performer Ruth Gibson,
3D CG Mike Dawson.

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Fig 4

'Empress's New Clothes' 2002-2003.
Special event at The Museum of London,
Actress Eli Garnett
Curator Jenny Lister,
Assisted by: Kate Deacon and Linda Florence,
MA Textile Futures,
Central Saint Martins College of Art and Design,
London.



Fig 5a

3D CG Construction and Presentation of a Garment by Shelley Fox, 2003.
Artist Jane Harris,
3D CG Mike Dawson.



Fig 5b

3D CG Construction and Presentation of a Garment by Shelley Fox, 2003.
Artist Jane Harris,
3D CG Mike Dawson.



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Fig 6

'Potential Beauty'
2002/03.

Artist Jane Harris,
3D CG Mike Dawson,
Performer Ruth Gibson.

Fig 1

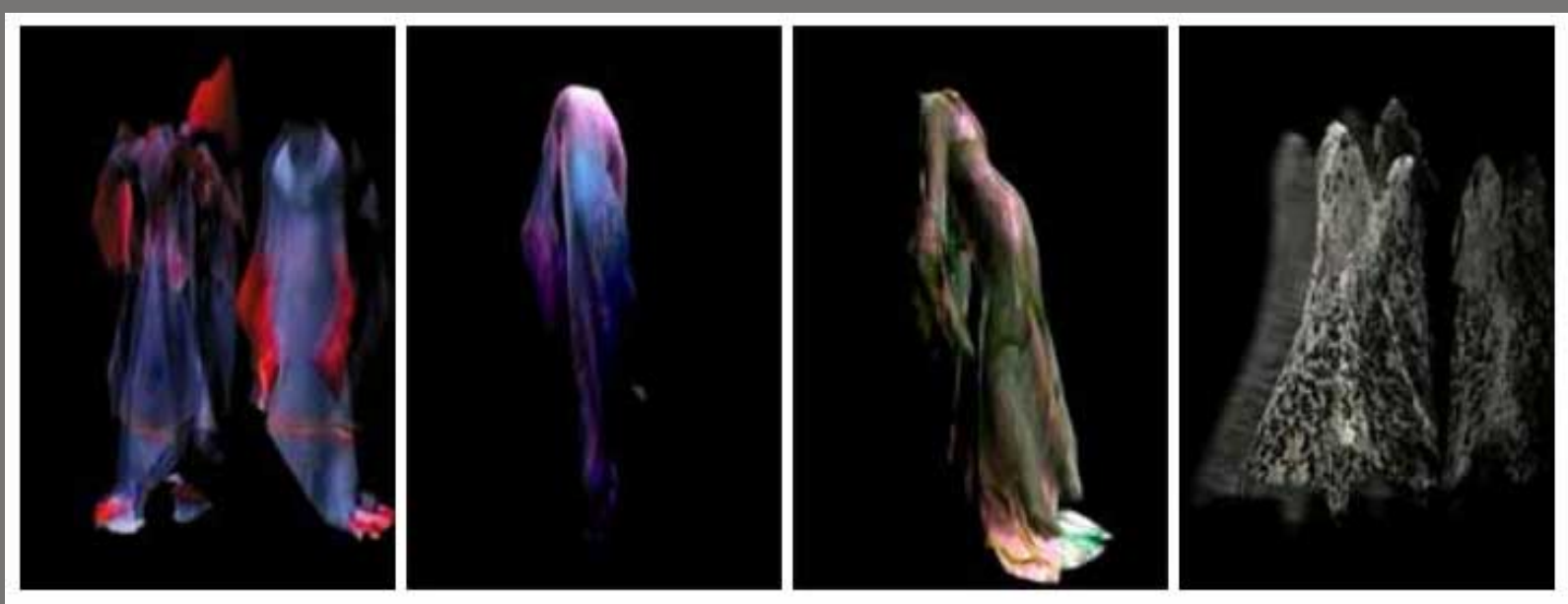


Fig 2



Fig 3



Fig 4



Fig 5a

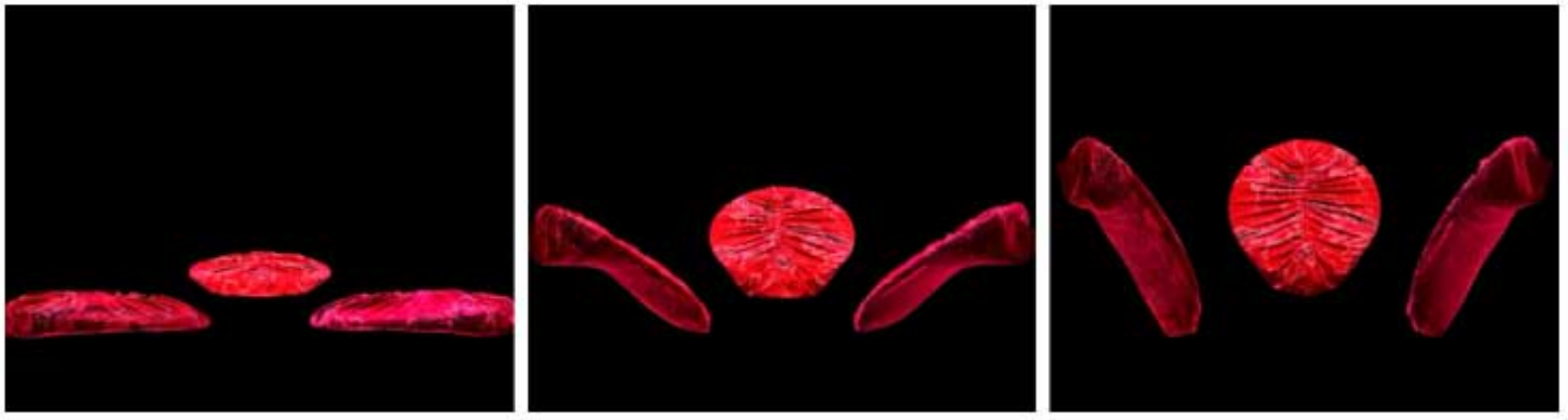


Fig 5b



Fig 6



A transcript relating the transition from physical making processes to digital, titled 'Beauty in the Beast', can be found on www.pixelraiders.org, '2002 conference'.

Other papers include: 2003 'Soccerers' Apprentice' by Jane Harris and Bernard Walsh - *Innovations in Art and Design - New Visions in Performance*. ed by Gavin Carver and Colin Beardon - (Pub. Swets & Zeitlinger). To be published: 2005 'Crafting Computer Graphics' by Jane Harris - *Textile: The Journal of Cloth and Culture - Digital Issue* (pub Berg).

**Ph.D. study (1995-2000) –
'Surface Tension – The
Aesthetic Fabrication of
Digital Textiles – The
Design and Construction of
3D Computer Graphic
Animation' - Royal College
of Art, London.**

**Arts and Humanities
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