“A Full Innocence”: The Paradox of Stillness in Movement

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Abstract
This paper explores reactions to the authors’ performance installations and workshops where participants have repeatedly described their experiences to projected digital light forms as “magical” and the technical interfaces as “transparent”. The authors became intrigued as to why these words were used so frequently, and decided to investigate the roots of these experiences. Initial investigations resulted in an article on the *Dancing in the Streets* interactive kinetic light installation, which proposed the “sensuous manifold” as a useful concept for experience design (Palmer & Popat 2007). This paper expands upon that argument in relation to the authors’ research project, *Projecting Performance*.

The paper presents the authors’ findings in relation to the notion of the pre-reflective “body-hold” (Crowther 1993), proposing this as a type of stillness, where the viewer is arrested by the aesthetic effect of the artwork with which he or she is engaging. In this moment of stillness, the artwork is experienced in a state of “full innocence” (ibid), from which the rest of the world is held remote. The authors apply this notion to the experiences of participants as performer-dancers and performer-operators in their movement-based workshops. They propose that participants find the moment of stillness, paradoxically, through movement, facilitated by the embodied experience of the interface between participant and technology, the digital and the aesthetic. The authors suggest that this stillness is what the participants are describing as “magical”, as it engages them in a position of innocence and thus intensifies the experience while all else is held remote.

Keywords
Performance, interface, experience, transparency, embodiment

Introduction: *Projecting Performance*

Projecting Performance is the authors’ research project at the University of Leeds, in collaboration with commercial digital artists KMA Creative Technologies Ltd and funded by the Arts and Humanities Research Council, UK. The project uses digital images projected into the stage environment and manipulated in real-time by an operator in relation to on-stage performers. The research project seeks to explore relationships between the performer-dancer, projected image (sprite) and the performer-operator, and through these interactions challenge dominant perceptions of the roles associated with performers and technologists.

Workshops with dancers and scenographers participating in the role of ‘performer-operator’ have repeatedly demonstrated that operators quickly become absorbed in the experience of controlling the projected sprites. After a period of operating, they are often unable to recall consciously being positioned behind the operating desk. Some describe an experience of being located on stage with(in) the sprite, and some are unable to pinpoint the location that they experienced. In this short paper, we are attempting to understand the responses of these participants.

Technical description

Projecting Performance workshops take place within adaptable theatre spaces that promote a playful immediacy in the iterative process of performance-making and technical programming. This supports an improvisatory approach to making theatre in a manner not normally associated with technology (Popat & Palmer 2005). Ideas can be tried out, tested and developed quickly, using traditional theatre equipment and materials. The gauze (scrim) is the primary surface in the stage

space onto which the abstract digital images ('sprites') are projected. The projection surface can be made to appear opaque or transparent depending upon both the stage lighting and the colour of the gauze itself. Dancers and other performers are seen behind this surface where they can interact directly with the projected digital images. (Fig. 1)

Figure 1: Snake sprite (with delay) and dancers 2007. Dancers: Keziah Mallard & Laura Blazy. Copyright: the authors.

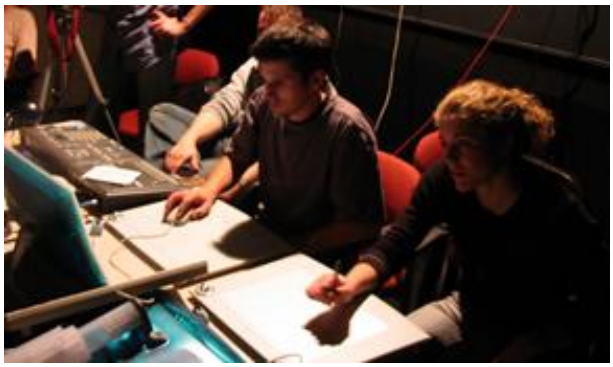

Figure 2: Performer-operators controlling sprites via graphics tablets 2007. Operators: TomWexler and Lisette Wright. Copyright: the authors.

The digital sprites are created in Macromedia Director MX2004 and controlled by the performer-operator in real time via a Wacom graphics tablet and pen (Fig. 2). The resulting output is projected into the stage space through a standard data-projector. The precise parameters of each individual sprite can be modified in performance mode through keystrokes or more intuitively by using a midi interface, allowing elements such as delay times, rates, shape changes and subtle colour alterations, to be achieved with an instantaneous effect. Tom Wexler, the technologist from KMA, has created the sprites through programming that is "rooted in the modeling (sic) of the physics of nature, using the mathematics of swarm behaviors (sic), springs and masses, cellular automata and chaos." (http://www.kma.co.uk) Ultimately these principles define the characteristics of each individual sprite, dictating how they are able to move and the extent to which they can be manipulated by the performer-operator. Many of the most engaging sprites appear to have an inherent natural fluidity that is easily understood and controlled. However, the laws of gravity and space for the projected image differ significantly from those of the human dancer, which challenge both dancer and operator to develop new approaches to theatrical space.

Research workshops

Through experimentation in our workshops, we have gathered responses from a wide variety of participants in the roles of performer-operator and performer-dancer. We have worked with sprites that have a range of different behaviours, and for the purposes of this paper we are concentrating on two which demonstrate different characteristics. One is the Snake sprite, which is a line made up of segments (Fig. 1). One end is controlled by the operator through the graphics pen and tablet, and the rest of the segments follow it like a chain. The other is the Star sprite, which is multi-limbed and has a central point that is controlled by the operator. When it is in a state of stillness, its limbs spread around the centre point evenly, but the limbs react to even the tiniest movements of the operator. The limbs are interconnected and respond to each other's position and they react once the centre point of the sprite is moved, which makes its quality fluid and graceful, rather like a jellyfish. When the centre point is moved quickly, the limbs fold back so that the sprite is streamlined.

The performer-operator works most directly with the technical/digital interface in our work, as he/she is using the graphics tablet and pen to manipulate the projected sprite. For initial workshops, computer monitors were placed in front of the operators but these quickly became superfluous as the operators preferred to focus on the image projected onto the gauze within the stage space. This had a major impact as it engaged the operator directly within the stage environment. The decision to move from mouse control of the sprite to graphics tablet and pen provided freedom and flexibility to achieve a dynamic range of expressive movement input, enabling both fine control and broad gestures. The pen provided an intuitive input mechanism that functioned as an extension of the body along the lines of Heidegger's hammer, where the engagement is haptic and becomes sub-conscious so that the operator thinks only of the results and not of the action. Humans have a natural understanding through constant physical experience of the Newtonian principles underpinning the modelling of these sprites, which enables intuitive engagement with their motion.

The sprites were largely predictable in the ways that they responded, but there were elements of the movement that were chaotic within fixed parameters. The tail end of the Snake tends to swing, as the tail end of a rope or chain might swing. The arms of the Star have some random elements in the speed and pathways that they take to come to rest when the operator stops moving the sprite. The Snake looks like a snake and appears to have a head end, which the operator controls, and a tail end, often causing both performer-operators and performer-dancers to anthropomorphise. This combines with the limited movement potential in the single line to lead to a tendency for operators to play a role or character that interacts with the performer-dancer. The Star has a greater level of complexity and slightly more unpredictable behaviour because of the multiple arms. The design makes it less initially attractive to first-time performer-operators, but it enables greater aesthetic immersion for those with more experience. These inherent behaviours give the sprites characteristics of their own that affect the ways in which they can be operated. The modelling on springs and masses means that the sprites move easily in curving, fluid pathways but resist jerky or staccato motions. There is also a very slight delay in the transmission of the operator's pen movement to the sprite's motion, which is more noticeable when making small detailed movements. One of the greatest restrictions, and probably the one that is most frequently noticed by participants, is the use of the two-dimensional projection screen. Experiments with haze, smoke, clothing and other projection surfaces have so far failed to supply a solution that supports an intuitive engagement for performer-operator and performer-dancer, although current trials with screens in front of and behind the performer-dancer to catch the projected light 'spill' have produced interesting results.

The level of intuition involved in operating the sprites allows even first-time operators to achieve complex motion and to experience themselves as performer-operators. There is excitement in

seeing their instinctive motor skills translated to the screen in a way that can be understood. Some scenographers working as performer-operators have commented on the feeling that they were dancing as equal stage partners with the performer-dancer, even though they have little experience or skills in dancing with their whole bodies. Operators often quickly develop a preference for a particular sprite, and with experience they will begin to prefer particular settings of the sprite parameters (where available). They will usually begin to develop a movement vocabulary with that sprite that has habits and personal quirks, much as a dancer develops a vocabulary that constitutes a personal movement style. Performer-dancers and performer-operators engaging in improvised movement together over a period of time will come to know each other's movement vocabulary and be able to respond more easily to each other, just as dancers who improvise together regularly will 'learn' each other as dancing partners and be able to increase their sensitivity in responses over time. Despite the restrictions in the sprites' programming that tend to push the operator towards particular types of movement, performer-dancers can consistently tell when the performer-operator changes, even if this is disguised from them by swapping operators secretly. They notice the changes in the sprite's behavioural patterns, even if they are inexperienced dancers themselves. It is telling that the performer-dancers describe the sprite as "alive" and "intelligent", seeming to indicate that they can sense the intention/attention of the operator in the sprite, yet they almost never report thinking of the sprite as being controlled by the operator. The dancing sprite exists between the sprite's inherent programming and the performer-operator's personal movement, mapping closely to the tripartite models offered by Castronova for digital game avatars (2003) and Zich for the "stage figure" (McAuley 2000, 94).

A full innocence

To return to the key purpose of this paper, how could we account for the experiences of dislocation or transportation that the performer-operators described after operating? As both operators of the technology and performers via the sprite, what did they experience of the digital interface and the moment of performance? In Palmer & Popat (2007), we combined ideas from Bolter & Gromala (2003) and Crowther (1993) to consider the nature of the interface in our interactive digital performance projects. In that article, we aimed to discover what it was about the digital interface in the *Dancing in the Streets* installation that caused participants to describe the interface as "transparent" and the experience as "magical". We noticed that similar words were used by performer-operators in relation to *Projecting Performance*, so this paper revisits those ideas and progresses them.

Bolter & Gromala argue that it is a common error to assume that the goal of design is to achieve transparency at the interface. Instead they suggest that the goal should be "to establish an appropriate rhythm between being transparent and reflective" (2003, 6).

> We should be able to enjoy the illusion of the interface as it presents us with a digital world [*transparency*]. But if we cannot also step back and see the interface as a technical creation [*reflectivity*], then we are missing half of the experience that new digital media can offer. (2003, 27) *Authors' additions*

There were elements of this rhythm in the design of the *Projecting Performance* sprites, which had transparency in terms of their Newtonian modelling and organic motion, but also contained elements of reflectivity in the restrictions that were inherent in their programming. The combination of these elements served to give them interesting performance qualities and mannerisms, and led to operators often developing preferences for a particular sprite. However, we suggest that the binary nature of the rhythm between transparency and reflectivity that Bolter and Gromala imply in this description frames the technology as a 'window' to another (digital) world. While this duality might

be appropriate for some types of digital artwork, it assumes an externality to the experience that promotes an auratic perspective reminiscent of Walter Benjamin. We propose, therefore, that Bolter and Gromala's perspective is better suited to the viewing of digital artworks rather than the experience of participation or performance within an art installation. The terms used by our performer-operators, "magic" and "transparency", are not rationalized but closer to instinctive "gut-reactions". They suggest experiences of the interface that are more akin to the Deleuzian concept of the "objectile" (Deleuze & Guattari 1988), where the experience of the object is predicated upon fluidity between transparency and reflectivity in the simultaneous tension and resolution of becoming. We began to suspect that the performer-operators' experiences of transparency and reflectivity might not be wholly located at the technological interface, but might be equally sited in the mode of aesthetic experience where the binary switching of viewpoints proposed by Bolter and Gromala might be too objective to explain their subjective reactions. As performer-operators ourselves, we noted the embodied nature of our experiences, and we turned to Paul Crowther's critique of Merleau-Ponty to explore embodiment and aesthetic experience.

Crowther, in his thesis on *Art and Embodiment*, describes a phenomenological mode of experiencing visual art, which he terms "a sensuous manifold" (1993, 4):

> [The sensuous manifold] is this integral fusion of the sensuous and the conceptual which enables art to express something of the depth and richness of body-hold in a way which eludes modes of abstract thought – such as philosophy. (1993, 5)

The experience of the sensuous manifold requires a state of pre-rationalization in order for the fusion or folding of the sensuous and the conceptual to take place. Crowther describes the artwork as "mute" (1993, 114) in that it cannot express or comment explicitly on our relation to the world in the manner of philosophy and literature. Yet Crowther sees this quality as "a positive virtue, in so far as it is able to return us to our primordial historicity with a 'full innocence'". These concepts of "full innocence" and "body-hold" that Crowther draws from Merleau-Ponty provide a valuable insight into the way that the sensuous manifold is experienced, because they indicate something of the quality of the moment of engagement. The fusion of the "sensuous" and the "conceptual" leads to the "inseparability of the visual and tactile in the pre-reflective perception" (107). This fusion involves our "sensory, motor, and affective capacities, operating as a unified field" (107) where engagement as body-hold is a fully embodied experience of being there in the moment, which in turn might be likened to stillness. Indeed, Crowther's use of the term "body-hold" implies stillness as the body is held absorbed in the experience, innocent of all else. This moment of intense absorption in the event is such that the perceiver's awareness of their immediate surroundings recedes; this constitutes a moment of rapt contemplation or stillness.

In this paper, we are concerned with the experience of the participant, and particularly of the technical operator in the role of performer. We acknowledge that Crowther is writing about the experience of viewing artworks, and there is a potential contradiction between notions of stillness derived from the concept of "body-hold" and live performance. However, we assert that our conception of the role of performer-operator incorporates elements of both the stage performer and the audience; the performer-operator simultaneously performs in and experiences the stage picture visually. Is this why the performer-operators were unable to pinpoint their physical location whilst operating? Some felt located on the stage, performing in the stage picture, and some were unsure of their location, caught in a state of suspension somewhere between viewing and performing. We propose that the interface that we were using for operational purposes had something to do with this transportation or multi-locational existence that the operators describe.

How, then, does the performer-operator experience the interface? Merleau-Ponty's theories of embodiment have been developed in dance theory by Fraleigh, who discusses the states of reflectivity and pre-reflectivity in dance performance through the concept of the "lived body" which, she argues, does not recognise "dualism of body-mind" and assumes "an invisible unity of body and mind" (1987, 4). This corresponds closely to Crowther's definition of the sensuous manifold where the sensuous and the conceptual are experienced as being folded into each other. Fraleigh describes a state of being where:

> I live as my body spontaneously … not noticing it, not looking back upon it, and not anticipating or imagining it in some future state. (Fraleigh 1987, 14)

The innocence in which that moment of movement is lived is fully centred in the performer rather than being directed externally, but it is still an aesthetic experience (albeit experienced kinaesthetically rather than visually). We thus suggest that body-hold can be felt through the lived body despite or even because of the fact that the body itself may be in motion, and therefore it might be seen as synonymous with Crowther's "full innocence". In modelling Fraleigh's concepts in relation to our work, we realised that the lived body for our performer-operators extends to include the digital interface. The experience entails the "invisible unity" of body, mind, graphical interface and sprite, since the lived body is experienced in the performance as a folding together of all of these elements. We propose that this is why performer-operators so often fail to recall being located behind the operating desk with the graphics pen in hand.

Our workshops to date suggest that the distance inherent in offstage operation of the sprites has the effect of creating a duality of the aesthetic experience of visual engagement with the stage picture and the feeling of embodiment and 'being in the moment' often associated with improvised dance performance. The former suggests that the attention is centred outside of the body (i.e. on the artwork); the latter suggests that attention is embodied. The "collapsing inwards of the sensuous and the conceptual" that occurs in the sensuous manifold provides us with a metaphor that seems to represent more closely the descriptions of our performer-operators. The performer-operator's attention is centred upon the distanced stage space, experiencing it through embodied engagement with the sprite. The resulting potential, we propose, is a place of stillness that occurs as rapt attention to the visual experience folded together with pre-reflective performance via the digital interface.

Conclusion

Our investigations lead us to conclude that our performer-operators who described themselves as being located entirely with(in) the sprite, or else were uncertain of their location, were actually reporting a lived body experience that enfolded their own body, the graphical interface and the sprite. Many participants see this experience of transportation as evidence of interface transparency. However, we suggest that the two-way impact of the sprite on the operator and the operator on the sprite is not the same as transparency. If the interface were entirely transparent then the operator's movement would be directly represented in the sprite rather than being mediated by the sprite's inherent behaviours. Neither is it as simple as the binary that Bolter and Gromala propose, since the participants do not experience the interface as either the presenter of an illusory digital world or as a technical creation in its own right. Instead their awareness of the interface is folded into their embodied experience of performing, influencing and influenced by their behaviour in the manner of the constant tension and resolution of the Deleuzian "objectile". The performer-operator is in a moment of stillness where physical location does not figure as important because, even though he/she is in motion, he/she is simultaneously also in a state of body-hold, embodied in the moment of rapt attention. The folding of transparency and reflectivity of the technical interface is facilitated

by the stillness of body-hold in the aesthetic experience. Stillness becomes a metaphor for the aesthetic experience that, for our performer-operators, is both visual and kinaesthetic.

Credits
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