

***Becoming a Body* (by Hetty Blades)**

This paper summarises and responds to qualitative findings from audience research conducted by Federica Ancona and Hetty Blades at *Thinking Through the Body: Mind and Movement in the Work of Wayne McGregor | Random Dance*, at the Wellcome Collection in London between 19th September and 27th October 2013. It analyses responses to *Becoming* (2013), a digital installation created by digital artists Marc Downie and Nick Rothwell, in collaboration with Scott deLahunta, James Leach with Wayne McGregor | Random Dance.

Gathering audience responses allows for a deeper understanding of the installation. In response to short interviews conducted with exhibition visitors, this paper suggests that *Becoming* proposes a new form of object, situated at a metaphorical intersection between artwork, tool and virtual body. *Becoming* does not fit neatly into existing categories. The unfamiliar nature of *Becoming* generated a wide range of responses, which highlights the fluid ontology of the object. This paper goes on to suggest a non-realist ontological perspective, proposing that the nature of *Becoming* is shaped and constructed by multiple factors, including; the intentions of the makers, the contextual framing and the perception and descriptions of observers.

Introduction

Becoming is one of the outcomes of the Enhancing Choreographic Objects (EChO) research project run by R-Research (Wayne McGregor | Random Dance)¹. EChO is part of a longer project, which sought to develop autonomous choreographic agents for the augmentation of McGregor's choreographic process. The initial outcome of this project was the *Choreographic Language Agent (CLA)*, which was developed between 2007 and 2011. The *CLA* allowed McGregor and his dancers to generate abstract animated structures by inputting instructions into a computer. These structures were used as stimuli for generating movement.

In a public seminar at Sadler's Wells on 3rd October 2013 Principle Investigator on the EChO project James Leach explained that during the process of developing the *CLA* it became apparent that, for the choreographer to find it engaging enough to work with in the studio, it was missing a crucial component: a body. Thus it was decided that the next stage of the programme's development must have the body at its core. This posed the questions; what is a body? And what do bodies do? Furthermore, how can a body be generated through digital media?

Leach, following McGregor's lead, suggested that a body is "something you cannot share the same space with and not have a response to" (Leach 2013). This was a fundamental observation for the development of *Becoming*. Research by deLahunta and Leach led to the specification of key three features that would help to generate the required response. Firstly the interface it should be human scale; secondly it

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needed to have dimensionality - to come off the screen; thirdly it must be compelling.

In order to instate the body, Downie explained how he focussed on developing a sense of physical presence (Downie 2013b). In order to do this he generated behaviours associated with bodies, including movement, growth and weight. It was also important that *Becoming* had both autonomy and intentionality. During a meeting of the research team in February 2013, Downie explained that:

There is a sense in my head that a growth process is drawn in an interesting way, and a set of repetitions and modifications that yields a sense of intentionality results in something which is far more satisfying in terms of body and physical presence, than the CLA as we currently have it. (Downie 2013a)

During the seminar at Sadler's Wells Rothwell explained how *Becoming* works within a world that possesses both gravity and friction (2013).). The relationship between *Becoming* and the world it inhabits seems to be of primary importance in allowing it to behave like a body. Dimensionality was also integral, it was decided that in order for the installation to come away from the flat screen, it should be developed using 3D technology.

Becoming was used by Wayne McGregor during the development of his most recent work, *Atomos* (2013). McGregor used it as a stimulus to create new movement material. *Becoming* was also displayed in the exhibition *Thinking Through the Body: Mind and Movement in the Work of Wayne McGregor | Random Dance*, which took place at the Wellcome Collection in London between the 19th September and 27th October 2013.

Gallery visitors were provided with 3D glasses to observe *Becoming*. The installation was accompanied by a short video which explained the progression from the CLA: "The latest version, *Becoming*, has been reimagined, less as an object or tool, and more as a body – as another dancer provoking new movement creation in the studio" (Thinking Through the Body 2013). The exhibition was a designed in collaboration with the Wellcome Collection. The decisions made about how to present and frame *Becoming* had a significant impact on the way that visitors responded to it. For example, the previous description provided contextual information for visitors and ensured that the experience of *Becoming* was framed by the research incentives. The document encouraged viewers to attend to *Becoming* as a body, and outlined the aim to "elicit a kinaesthetic response" (Thinking Through the Body, 2013). Videos of Random Dance Company working with *Becoming*, and discussing their experiences, were positioned after the room where *Becoming* was situated. This meant that spectators generally had little or no knowledge of how the installation was used when they encountered *Becoming* for the first time.

Becoming a body?

Becoming's ability to elicit kinaesthetic responses in observers was a key motivation of the project. It would allow *Becoming* to become McGregor's '11th Dancer' (Downie 2013), and implicate the object as a digital body. The question of kinaesthetic engagement with dance is not a new one. There is a large body of research examining the kinaesthetic and cognitive impact of dance movement on spectators. Beatriz Calvo – Merino et al (2005), Matthew Reason and Dee Reynolds (2012), and Susan Foster (2011), have all made observations and suggestions regarding the physical perception of movement. This area of enquiry dates back to 1933, and John Martin's account of 'metakinesis' (Martin 1989); subsequent studies focus primarily on the notion of 'empathy'. Kinaesthetic empathy and related research on mirror neurons, often suggests that when spectators observe a body moving, they recognise, to a greater or lesser degree, the movement that is being performed. It has been suggested that recognition triggers both cognitive and empathetic kinaesthetic responses in the observer (Calvo-Merino, 2005, Reason and Reynolds 2012).

Although related, the motivations of *Becoming* are somewhat different to those described and explored in research on kinaesthetic empathy. *Becoming* is an abstract form. It generates coloured lines that change, grow, expand and dissolve. It does not look like a human body. Nor does it perform recognisable or codified dance movements, yet it is possible to describe it as 'dancing'. The way that its form and actions are both familiar and unfamiliar meant that the behaviour and movement of *Becoming* is not necessarily easy to acknowledge, understand or articulate.

Becoming was developed as a very particular form of body. Its bodily characteristics were decided on through discussions between McGregor and the research team. The team were not aiming to generate a human form. However, if we are to concede that bodies can be generated through computer code, the question is posed: What kind of body is *Becoming*? Digital technology has proposed many forms of human, digital, symbolic and metaphorical bodies. Recordings, motion-capture and visualisations offer numerous ways to deconstruct, represent and encode the human body. However, *Becoming* is neither representational nor reductive. It does not look like a human body, nor is it generated from dance movement data. Its movements are generated by the computational interpretation of filmed stimuli. Downie and Rothwell adopted creative coding methodologies to generate an artistic object that responded autonomously to source data. Although the complexities of coding are too vast for this paper, it is significant that the installation relied upon innovative methods to transform numerical data into artistic form. Casey Reas and Chandler McWilliams point out that:

Outside the computer, form itself is physical and intuitive – it is the curve of a line on a page, the texture of paint, or the slope of a hillside. To manipulate form in the world, we don't need to understand the mathematics behind how things are put together,

and we can specify things in relative terms, like “over there” or “next to me” (Reas & McWilliams 2010, 33).

The authors go on to point out that computers operate in contrast to this; they rely on specifying everything in numerical data. Understanding this distinction helps to understand the ambitious nature of the project. Downie and Rothwell aimed to create a physical and intuitive form using numerical code.

This aim is true of multiple forms of digital body. The question therefore arises regarding the significance of the source data. Once images or footage have been reduced to their numerical form, and re-organised into an alternative data set; how significant is the original source? Would *Becoming* have an alternative ontology if it was based on dance data?

Although there is movement in the film, the body is not the primary source, therefore *Becoming* does not directly arise from a human body. Whilst motion-capture, creative coding and visualisations can be seen as prosthesis, or extensions of the body (Manning 2009, 63), relating and responding to the flesh, *Becoming* is not a prosthetic or symbolic body. *Becoming* is an individual form of body: a virtual body (Gil 2006) – constantly moving, changing, growing and adapting. However, *Becoming* is not only a body; it is a hybrid object, it was developed as an artwork, used as a tool and behaved like a body, existing in a constant state of movement, growth and renewal. It is hard to find an appropriate term to describe *Becoming*, it is both verb and noun; a tautology, *Becoming* is its name.

Measuring responses to *Becoming*

In investigating exhibition visitors’ responses to *Becoming*, we hoped to gauge its ability to elicit kinaesthetic reactions in spectators. This posed an interesting methodological problem. The types of responses we were looking for are not necessarily recognisable or easy to articulate. It is perhaps not possible to be sure of exactly what kind of physical responses occurred in observers’ bodies, and it was certainly beyond the remit of our study to deploy scientific or technical equipment in order to attempt to measure such things. However, through interviewing visitors, we were able to gather enough anecdotal data to draw some qualitative conclusions about responses to *Becoming*.

We asked visitors the following five questions:

1. What is your main reason for visiting the exhibition?
2. Did you experience *Becoming* in 3D?
3. How long did you spend observing it (more or less than 5 minutes)?
4. Can you describe your response to *Becoming*?
5. Are you planning to/have you seen *Atomos*?

One of the most notable findings was that people did not spend a great deal of time observing *Becoming*. Of 164 people interviewed, only 12 said that they stayed for

five minutes or more. Those who did stay for more than five minutes described a range of responses, including:

"I found it interesting to detect shapes of a body and how it was traced through lines on the screen" (Participant 16, 06.10.2013).

"I found it fascinating. I felt like floating. I felt drawn and stared at it" (Participant 19, 06.10.2013).

"I had the feeling of wanting to mimic the movement on screen" (Participant 26, 06.10.2013).

"I am curious about how dancers use it" (Participant 26, 06.10.2013).

With one exception, those who stayed with *Becoming* for five minutes or longer, described their experiences in detail and responded positively. Their comments demonstrate both intellectual and physical responses. Although detailed and positive responses were not exclusive to these participants the percentage of the sample makes it worth mentioning.

Although dimensionality was an integral part of *Becoming*, it posed problems. The 3D nature of the installation was distracting for many participants. We recorded 23 negative responses to the use of 3D, with participants suggesting that it was ineffective, or that they do not like using 3D glasses.

The situation of *Becoming* in the exhibition context potentially contributed to the short time spent with the installation. There were lots of other areas to look at within the exhibition, meaning that the amount of time visitors dedicated to each exhibit was limited. Furthermore the small number of 3D glasses and confined space contributed to some participants feeling inhibited by the context. For example, Participant four on the 6th October explained, "It made me feel like I wanted to move", however she went on to mention that she did not respond to the impulses, as she was aware of people watching her. Similar experiences were articulated by other participants; for example; Participant 14 on 24th October explained that despite only observing *Becoming* for approximately two minutes, it was the most immersive experience she had ever had. She said that she had wanted to spend more time with it but that she was aware of other people waiting.

These observations acknowledge a physical impulse which participants felt unable to respond to due to the context. These responses demonstrate the impact of *Becoming*, but also highlight a significant difference between the potentials of *Becoming* when used in the studio, and in the exhibition.

***Becoming* a tool: *Becoming* an art work**

"I was confused" (Participant 3, 25.09.2013)

"I get it" (Participant 20, 24.10.2013)

"I didn't get it" (Participant 2, 06.10.2013)

"It worked" (Participant 7, 06.10.2013)

[It was] "insightful into movement" (Participant 30, 06.10.2013)

Many of the responses to *Becoming* revealed a desire to understand the object. This demonstrates an engagement with the function of *Becoming*, and an impulse to understand the ontology, motivation, or logic of its behaviours. For example, Participant 24 on 27th October explained how she was unsure whether *Becoming* was meant for notation or for movement generation. She explained how she spent time wondering about whether it was randomly generated by a computer, or whether it replicated actual body movement. This demonstrates an engagement with the function and operation of *Becoming*.

The fact that the filmed footage of the company using the installation was after the installation meant that visitors often had no direct experience of how *Becoming* functioned. Instead, they were left to encounter the object in relation to the written information about the motivation of the project. The text explained how this was a prototype, and the result of an aim to develop "an interactive digital object" (Thinking Through the Body 2013). Although this description was very clear, it does not explain exactly what the object *is* in relation to existing categorical descriptors. It is possible that this perhaps generated a desire to understand the nature of the object.

We are used to being able to categorise and recognise objects. We recognise something as art if it is in a gallery, and we understand the function of computers, vacuum cleaners and so on. The recognition of the nature of such objects informs how we attend to them. For example, we approach a household tool with a different kind of attention to how we would approach an artwork. Traditionally art works are conceived of as aesthetic objects. This means that they are conventionally appreciated in alignment with aesthetic ideals, and attended to primarily in terms of their appearance. Philosopher Jerome Stolnitz suggests that attending to artworks requires the adoption of an 'aesthetic attitude' (1969).

Stolnitz suggests that usual perception is practical, and that "when our attitude is 'practical', we perceive things only as means to some goal which lies beyond the experience of perceiving them" (1969, 18). This type of attention is suggested in the previous set of responses, which demonstrate a practical concern and interest in the function of *Becoming*. This is not a typical way to engage in art. Stolnitz suggests that when we attend to art works and other aesthetic objects we adopt a special kind of attention. He explains that the 'aesthetic attitude' is adopted wherever people attend to something purely for the enjoyment of how it looks, sounds or feels (1969, 19). He defines the aesthetic attitude as "disinterested and sympathetic attention to

and contemplation of any object of awareness whatever, for its own sake alone” (1969. 19).

In using the term ‘disinterestedness’, Stolnitz is not suggesting that the perceiver is not interested in the object they are addressing, rather that they are not distracted by any ulterior motive. They are interested only in aesthetic contemplation (1969, 20). He suggests that disinterested engagement means not trying to use or manipulate the object, and that, “Our interest comes to rest upon that object alone, so that it is not taken as a sign of some future event, like the dinner bell, or as a cue to future activity, like the traffic light” (1969, 20).

Responses that recorded an intellectual response and desire to understand *Becoming* suggest two potential outcomes. Firstly, they might imply a desire to understand the function and purpose of *Becoming*, thus demonstrating a practical attitude. Secondly, they may be seen to indicate a desire to categorise and label *Becoming* in relation to existing categories in order to engage with it appropriately.

As mentioned previously *Becoming* has a complex ontology. It is an object with multiple forms of being. As a body, an artwork and a tool the required type of attention confuses Stolintiz’s distinctions. As outlined in the accompanying text, one of the motivations for this stage of the project was to develop the programme so that it became less of a tool and more of a body (Thinking Through the Body 2013). This is reflected in the decision to situate the film of the company working with *Becoming* after the installation. This perhaps encouraged visitors to engage with *Becoming* on aesthetic and contemplative terms, as opposed to seeing it purely as a choreographic tool.

Although it served a practical function, *Becoming*’s tool-hood does not threaten its art-hood. Classifying *Becoming* as a tool is dependent upon McGregor’s use of the object in the studio. Choreographers often use a wide range of stimuli to develop movement, including existing artworks. Although stimuli are adopted choreographic tools, an artwork remains an artwork when used as a tool. The engagement with the work may be more detailed or functional than when encountering it in a gallery, but this does not change its ontology. Therefore it seems fair to suggest that McGregor’s use of *Becoming* is not enough to categorise it purely as a tool. Indeed, tool-hood is arguably its least prevalent characteristic.

There were a number of responses that demonstrated aesthetic appreciation of the installation. For example, participant 22 (06.10.13) described it as “visually appealing”, participant 3 (27.10.13) described it simply as “visually pleasing”. However, the notable desire to understand *Becoming* suggests that many participants did not respond to the object on purely aesthetic terms. According to Stolnitz, attending to *Becoming*’s function does not allow the viewer to consider the installation as a purely aesthetic object. Conceptual, hybrid, immersive, and interactive art forms problematise the concept of disinterested engagement and problematise the appropriateness of the ‘aesthetic attitude’. Art practices that are not purely concerned with the representation of beauty or form often rely upon

interpretation and understanding. Therefore the perception of art cannot be described purely in relation to aesthetics. However, it seems fair to suggest that in order to respond to an art- work contemplation is required. If we are to think of *Becoming* as an artwork, it might be said that analysing its functionality detracts from the perceptual and phenomenological experience of the object.

There is a further problem with Stolnitz's claims in relation to *Becoming*. That is to do with the idea that it is both an artwork and a body. Although art often involves the depiction of human bodies, *Becoming* does not *represent* a human body, but rather certain bodily features are analogised, in order to generate a visually compelling work of. This poses further questions about intention and engagement. For example, is it possible to attend 'disinterestedly' with another body? Perhaps the kind of responses aimed for by the team, are in fact the result of a form of interested, albeit not practical attention. When we share space with other human bodies, we do not contemplate them in the same way as an artwork. The types of responses that we have are not the result of an aesthetic attitude. The way that the object does not align with Stolnitz's discussion demonstrates how the ontological fluidity of the object has repercussions for the viewer. Not knowing exactly what kind of thing it is makes it difficult to attend appropriately, and therefore may have been the reason for a high number of responses that were primarily concerned with understanding.

Becoming a body

A number of participants described how they experienced physical impulses and responses. For a few participants these responses occurred after engaging purposively and gaining an understanding of the function and role of *Becoming*. Participant 11 on 6th October gave an articulate account of the experience. She described how at first she thought, "what is this?" and that watching the films of the dancers working with *Becoming* helped her to understand what it was. After understanding the purpose of *Becoming* she thought about how it would be responded to physically, suggesting that *Becoming* required thought but eventually ignited a physical response. Another participant (26, 13.10.2013) returned to the installation after watching the film of the dance company working with *Becoming*. She suggested that she did not 'get it', and was not interested at first. However, after she watched the film and understood its purpose she found it made her want to move.

These observations demonstrate an intellectual and practical engagement with *Becoming*. The physical responses described here are generated through a desire to fulfil the function of the tool and respond correctly. However, these responses were not conclusive. For example, Participant 25 (13.10.2013) explained how he instantly felt that he wanted to copy its movement. He returned to *Becoming* after watching the film, but suggested that watching the film did not change his experience rather it explained his initial response.

Many of the responses that described *Becoming* in relation to the body were concerned with the way it might generate movement. Perhaps unsurprisingly, there was a clear link between those who self-identified as having an interest in dance, and those who described the impulse to move. Dancers are often trained or encouraged to respond physically to objects, images and stimuli. Physical responses are not generated purely by other bodies rather dancers are trained to respond physically to a wide range of objects.

There were, however some notable exceptions to this. For example a science student with no knowledge of dance suggested, "It made you want to move" (Participant 10, 06.10.2013). Furthermore, Participant 14 (24.10.2013), referred to previously as having an immersive experience, was attending out of an interest in the Wellcome Collection. She described *Becoming* as "amazing", and explained how she was directed by *Becoming* to move in space. Participant 28 (06.10.2013), who was attending the exhibition out of general curiosity, described "feeling without knowing" and "a sensory response". These examples provide more compelling evidence for the potential of *Becoming* to generate kinaesthetic responses than those responses by people knowledgeable about dance, who are more likely to have been trained to respond physically to objects, whether or not they are other bodies.

Some participants described physical responses that were not overtly related to an intellectual engagement with the function of *Becoming*. This is demonstrated in the description of more ambiguous bodily responses. For example Participant 14 on 13th October described it as "so new", and said it gave her a new experience. Another participant (5, 24.10.2013) described an altered 'trancey' consciousness. She described a deep internal rhythm that changed speed in alignment with *Becoming*. Participant 6 (24.10.2013) described "moving inside" and a "deep opening inside the mind".

Describing *Becoming*

16 participants made direct reference to the body, with many more referring to 'movement' and 'form'. Some described *Becoming* as *resembling* a human body, whilst others referred to it as a *representation* of a body. For example, Participant 39 on 24th October suggested it was "Reflecting of someone's movement", and observed, "I [wondered] if it represented people dancing or was just computer generated" A small number of participants implied a metaphorical relationship between *Becoming* and the body. For example Participant five on the 25th September referred to it as "inspiration" but "not the real thing", and suggested that he could see arms and legs, but that he did not register any physical sensations. Participant 17 on the 13th October suggested that it was "interesting, but not as interesting as a body", and Participant 12 on the 27th October described it as a "mechanical rather than human form".

Another notable outcome of the interviews is the way in which participants described *Becoming* via analogies and similes:

“like brush work [...] like a bug” (Participant 11, 25.09.2013)

“like a heatmap” (Participant 2, 13.10.2013)

“like an insect” (Participant 25, 13.10.2013)

“like a sketch” (Participant 26, 23.10.2013)

“like a compass” (Participant 8, 24.10.2013)

“made me think of a protractor” (Participant 28, 24.10.2013)

“big arachnoid” (Participant 12, 27.10.2013)

“looked like it was writing” (Participant 27, 13.10.2013)

“like an acid trip” (Participant 11, 27.10.2013)

“reminded me of Spirograph” (Participant 18, 27.10.2013)

The use of similes can potentially be seen as further evidence of a desire to understand and make sense of *Becoming*. These responses demonstrate intellectual engagement with the aesthetic, as opposed to with the function and purpose of the installation. They also imply that participants used similes to make sense of the object by relating it to recognisable and familiar objects or experiences.

Preliminary conclusions: Attention and the ‘real’ body.

Becoming inspired a wide range of cognitive, practical and physical responses. The presence of the body was noted. These responses seemed to take two forms. Firstly there were direct references to the bodily nature of *Becoming* in relation to how it looked, or how it was used. These responses often reflected the framing of the installation, making reference to the way that *Becoming* was used or written about. They demonstrate a desire to respond appropriately to the object, to see it as a body and engage with it in the way that it was intended.

Secondly there were a range of ambiguous sensory responses, which made no direct reference to the framing or function of *Becoming*. These responses demonstrate physical or kinaesthetic responses that were not reliant upon intellectual understanding of the function of *Becoming*. As mentioned previously, it was not the aim to scientifically prove such responses, and the way that people describe their experiences is clearly informed by multiple factors. However the descriptions of unusual or new bodily experiences tells us that *Becoming* achieved one of the primary intended characteristics in that it was a compelling object that elicited kinaesthetic responses. Interestingly those participants who described ambiguous

physical responses did not refer to *Becoming* as a body. Their descriptions were concerned with the phenomenology of the experience, as opposed to drawing visual analogies.

Mentions of the body were often literal, perhaps reflecting the framing of the installation and the way in which the accompanying text refers to the desire to create a body. It is possible to suggest that many spectators were looking for visual resemblance to a human body, or a recognisable form. However, *Becoming* was not intended to *look* like a human body, in so much as it does not have a torso, head or limbs. Therefore, through trying to attend 'appropriately', spectators were led to see the installation differently to how it was intended.

As suggested previously there were also a notable number of responses that described looking for the function of *Becoming* in order to understand it. This suggests that these participants were not adopting Stolnitz's 'aesthetic attitude', in so much as they were engaging intellectually, as opposed to aesthetically. This is perhaps not surprising given the context. The exhibition was informative and educational in nature, as opposed to purely artistic. This framed the way that audiences were led to look at the objects. Were the installation displayed in a different context, such as an art gallery, viewers would perhaps adopt an alternative mode of attention and perceive the object differently. This is further demonstrated by considering the way that the object was perceived and used differently in the studio and in the exhibition

The question of appropriate engagement is an interesting one. It is possible to argue that there is no correct or incorrect way of attending to artworks. This is perhaps most evident in the case of hybrid art forms. In this context it has been shown that an 'aesthetic attitude', as defined by Stolitz may not be appropriate or possible, due to the interested nature of bodily perception. However, *Becoming* required a certain type of engagement in order to be fully appreciated in alignment with the intentions of the creators. It seems as though some participants were not sure how to attend to it, perhaps due to its unfamiliar form. Those participants who did not engage for a prolonged period of time, or addressed it in purely analytic or functional terms were unlikely to experience a spontaneous kinaesthetic response. Perhaps there is potential to develop a hypothesis for a 'kinaesthetic attitude', involving an openness to the phenomenological potentials of digital bodies. *Becoming* requires being. It can be suggested that in order to experience the installation fully, participants were required to be with the installation for a prolonged period of time without analysis or intellectual engagement, rather it should perhaps be a primarily sensory experience.

The difficulty in describing an ideal mode of attention originates in the ontological fluidity of *Becoming*. It was read, perceived and understood in a variety of ways, perhaps suggesting that the object was a different type of thing to different viewers. The implication of this claim is problematic in some ways, as it suggests that what *Becoming* is, is determined by how it is used or perceived which leads into complex

metaphysical territory; if generalised, the acceptance that an object can change dependent on its location and usage has philosophically complicated results.

Debates regarding ontological realism are too vast for this paper. However, in this context it seems fair to suggest that *Becoming* was at least partially formed by the perception of those who viewed it. This is due to the fact that it does not align itself singularly with another type of object. For example if *Becoming* was purely an artwork, or clearly a body, it would be possible to claim that attending to it as a tool is incorrect. Similarly, if it had a purely purposive function, one might be accused of misunderstanding the object if they reported a purely aesthetic response. Yet, *Becoming* is ontologically fluid. What it is, can be seen to be shaped by how it is perceived. This feature of *Becoming* is demonstrated through analysing the responses of participants. The wide range of responses, show how the object does not have a clear categorical identity.

The nature of *Becoming* was further shaped through a variety of factors, including the intentions of the makers and the context and framing of the object. Amie L. Thomasson points out that the feature that distinguishes art works from natural kinds is that they are the product of deliberate human intention (2005, 224). She points out that the intention of the maker impacts on the ontological status of an artefact, suggesting that, “central ways of classifying [...] artifacts of particular kinds involves classifying them according to the intentions involved in their creation (rather than according to their physical or chemical structure etc.)” (Thomasson, 2005, 224). Whilst this is a common sense view, there is not always a clear correlation between the intention and perception of the artefact. For example, it would not be adequate to classify *Becoming* as a body, merely based on the intentions of the makers.

It seems important here to reiterate that the team were proposing a very particular type of digital body, a kind that is distinct to a biological body. This is an important consideration in the context of the argument for a non-realist perspective. Thomasson highlights the distinction between natural kinds, such as whales, and artefacts, such as paintings. She suggests that because the categorical distinctions of natural kinds are based on biological information it is possible to maintain an empirical or ‘discovery’ view (2005, 222). However, she suggests that because the artefacts are categorised in relation to non-biological features, it is possible to claim that they are categorised via the practices of those who refer to the object (2005, 223). This account is significant here; although it is possible to suggest that *Becoming’s* nature is at least partially constructed via the perception and description of observers, this argument is dependent upon the fact that it is an artefact, as opposed to a natural or biological kind. To put it another way, if a human or animal body is referred to as a different kind of thing, the observer could be easily accused of misunderstanding. Natural kinds are defined by their biological make up. In this case this outcome is not so clear-cut. The biology of *Becoming* is not what makes it a body; rather its ontological status is developed through intention, context, perception and description.

Analysing audience responses to the installation allowed for a deeper understanding of *Becoming*. The process highlighted the complexity of the object, and revealed interesting information about the way that cultural artefacts are perceived and understood. Furthermore, it raised multiple questions and opened further lines of enquiry, not least regarding the interplay between human and digital bodies in their continual states of being and becoming.

References

- Deleuze, G. and Guattari, F. (1988) *A Thousand Plateaus: Capitalism and Schizophrenia*. London: Athlone
- Calvo- Merino, B. et al (2005) 'Action Observation and Acquired Motor Skills: An fMRI Study with Expert Dancers' in *Cereb. Cortex*. 15 (8) pp. 1243-1249.
- Downie, M. (03.10. 2013) 'EChO Seminar' [presentation]. Sadler's Wells, London
- Foster, S. (2011) *Choreographing Empathy: Kinaesthesia in Performance*. London: Routledge.
- Scott, R. (dir.) (1982) *Bladerunner* [film]. USA: Warner Brothers.
- Gil, J. (2006) 'The Paradoxical Body' in *TDR: The Drama Review*. 50 (4) pp. 21 - 35
- Manning, E. (2009) *Relationescapes: Movement, Art, Philosophy*. Cambridge, Mas.: MIT Press
- Martin, J. (1983) 'Metakinesis' in Copeland, R. & Cohen, M. (eds.) *What is Dance?* Oxford, New York, Toronto, Melbourne: Oxford University Press, 23 -28
- Reas, C. & McWilliams, C. (2010) *Form & Code in Design, Art and Architecture*. USA: Princeton Architectural Press
- Reynolds, D. and Reason, M. (2012) *Kinaesthetic Empathy in Creative and Cultural Practices*. Bristol: Intellect
- Leach, J. (03.10.2013) 'EChO Seminar' [presentation]. Sadler's Wells, London
- Rothwell, N. (03.10.2013) 'EChO Seminar' [presentation]. Sadler's Wells, London
- Stolnitz, J. (1969) 'The Aesthetic Attitude' in Hospers, J. (ed.) *Introductory Readings in Aesthetics*. New York: Free Press 17 – 27

Thomasson, A. L. (2005) 'The Ontology of Art and Knowledge in Aesthetics' in *The Journal of Aesthetics and Art Criticism*. 63 (3), pp. 221 - 229