

# New museum design cultures: harnessing the potential of design and ‘design thinking’ in museums

**Suzanne MacLeod, Jocelyn Dodd and Tom Duncan**

## **Introduction**

Museum design research has matured significantly in recent years and continues to unfold in increasingly experimental, collaborative and practical directions. Prior to 2000, there was very little consistent, focused and analytical museum design research and the relationships and collaborations that now define the field were almost non-existent.<sup>1</sup> Since then, and linked to the transformation and increasing complexity of museum design itself, research in museum design (including museum architecture, exhibition design and/or what is now commonly referred to as experience or interpretive design) has been shaped and progressed by a growing number of museum design researchers, representative of the diversity of museum design itself.<sup>2</sup> The result is a small but dynamic research community comprising a whole range of people from museums, the creative industries, and academia and who span fields as diverse as architecture, various design disciplines, visitor studies, learning, theatre, animation, film and museum studies.

The cross-sector and multi-disciplinary nature of the network means that it is populated by professionals of all career ages with exceptional thinking and research skills, highly sophisticated design skills as well as museum-based skills, knowledge and, importantly, agency. The network is unusual in academic terms because it has many of the characteristics that other research fields and academic teams hanker after but find hard to create: genuine

cross-sector links and a deep desire to join forces to create new ways of working, new knowledge and, again importantly, contributions to real and positive change in museums. Through an array of conferences, design classes, and events, in addition to publications, teaching collaborations and research projects, the network has begun to develop a shared language and a series of shared preoccupations, or research questions.<sup>3</sup>

Those interested in museum design can now draw upon a diverse literature including increasingly analytical studies of exhibition making and architectural forms,<sup>4</sup> historical analyses of exhibitions and the visions of visitor use embodied within them,<sup>5</sup> theoretically informed approaches to understanding museum experience<sup>6</sup> and, perhaps most significantly, preliminary understandings of the place of the physical stuff of museums and galleries in experience.<sup>7</sup> In addition to this diverse literature, students of museum design can draw on a whole body of research produced by design practitioners exploring and dissecting methodologies of museum design and explicating the thinking and design processes of specific interpretive projects.<sup>8</sup> These include: theatre-led, or scenographic approaches to museum design based on the notion that the physical material of the exhibition or display is, like the stage set in theatre, interpretive and active in the experiences and meaning making of visitors;<sup>9</sup> and the closely related narrative approaches to museum design based upon understandings of human subjects as, essentially, narrative, meaning-making beings who make sense of the world through their bodies as well as their minds.<sup>10</sup> Here, rather than attempting to establish monolithic or essentialist forms of knowledge about exhibitions, many researchers have sought to develop shared languages which might work to link the various practitioners involved in museum design and, potentially, inform contemporary practice. Although small and somewhat dispersed, the field is making progress as evidenced in the acknowledgement of museum design research and its insights in an increasing number of academic studies.

Whilst much progress has been made and, for some, the field feels concrete, knowable, and energetic, there remains a very clear sense that research must impact museum and museum design practice and that, often, academic constraints and accepted ways of working close off the potential for museum design research to make a real impact on what gets built. Whilst a good number of museum practitioners are active in the field, there is a need for more high level engagement with museum design research in museums, as a route to ensuring that the potential that museum design research seeks to open up, can be tested and expanded through actual museum making. Rightly or wrongly, museums are perceived as pushing design away to the margins of museum practice and containing it within bureaucratic and restrictive procurement and development processes or, worse, reducing design to a technical process of display.<sup>11</sup> The current status-quo and the on-going difficulties that characterise many exhibition and architecture projects has led some to suggest that the content and text-led world of museums and the visual and sensory world of design are incompatible.<sup>12</sup> This is, of course, an over-simplification; both deal in sensory experience and both are inhabited by people with diverse skills and abilities that reach across different ways of knowing and working. That said, the provocation is helpful and draws direct attention to the need for research and practice which crosses disciplinary and sector boundaries and which worries away at the threat that museum design research and thinking will be condemned to forever reside in universities and some of the more reflective, research-led and experience-oriented design practices.<sup>13</sup>

It is within this context that this paper takes as its focus *Developing IWM North*, a project undertaken in the Research Centre for Museums and Galleries (RCMG) at the University of Leicester in collaboration with colleagues from the Imperial War Museum North (IWM North) and museum and exhibition design studio Duncan McCauley in the early months of 2014. The project is characteristic of the direction of travel of museum design research; the

team set out with the intention of harnessing the full range of professional expertise which makes up the museum design research network and to push at museum design research methodologies by valuing the various ways of knowing and doing in our field and utilizing design thinking and design processes as part of the research approach. The remainder of this paper describes the IWM North project, the design-led approach taken to the project's research methodology and its main findings, including the team's desire to place discussion of museum design within an ethical framework, before drawing out some of the implications for museum design research more broadly. In this final section, we place a particular focus on the possibilities offered up by the project for new ways of thinking about museum design research which show great promise for museums in terms of: acknowledging the active role of the physical material of museums and galleries in visitor experience; tying design and design processes far more closely to the vision and values of the organisation; acknowledging the value of design research in solving interpretive problems and engaging with questions of visitor experience; realigning the role of the designer in relation to the museum as organisation ; placing greater value on design thinking and design knowledge; and removing some of the obstacles between much museum design research and its ability to play an active role in real and on-going museum development.

#### **New museum design cultures: our aims**

- ❖ To draw attention to the role of the physical material of museums and galleries in visitor experience;
- ❖ To highlight the potential for museums to harness these forms towards the production of particular types of experience;

- ❖ To expose the direct link between museum design and the tangible manifestation of organisational vision and values;
- ❖ To highlight the particular skills of the trained design professional and expose some of the ways in which those skills and insights are currently under-utilised in the cultural sector;
- ❖ To draw attention to the potential of design research to problem solve and offer up solutions to interpretive puzzles and questions of visitor experience;
- ❖ To advocate for the removal of the obstacles which currently limit the impact of museum design research on museum making;
- ❖ To advocate for the creative rethinking of museum design cultures towards freer, less capital-intensive and commercially-driven approaches.

### **IWM North – harnessing the problem-solving potential of museum design research**

IWM North is part of the Imperial War Museum (IWM) family of five nationally-funded museums, which tell stories of conflict and war from the First World War to the present day. Conceived as part of a programme of diversification and regeneration which would expand the Imperial War Museum to the North of England and stimulate regeneration in a derelict post-industrial area, IWM North is located in Trafford, close to Manchester, where it is housed in an award-winning building designed by Studio Daniel Libeskind (Figure 1). Since opening in 2002, the Museum has offered a new type of museum experience where human stories of the causes, course and consequences of war and conflict are told through a range of media (including architecture, art, authentic objects, photography, film, audio and graphics) and the dynamic use of scale and drama, in a direct attempt to engage visitors' senses and

emotions and stimulate dialogue, deep thinking, and critical engagement with other peoples' experiences of war and conflict.

Of this range of media, it is architecture for which the Museum is best known. The IWM North building has been described by Libeskind as a globe, shattered by war into an earth, air and water shard (Figure 2). The three shards create the formal sculptural expression of the exterior architecture as well as a sequence of different spaces internally. In the experience as originally built, the visitor enters through a small concrete tunnel into the air shard, a tower that is only partially closed from the elements, and into a 'bunker-style' foyer. Intended to unsettle, disorientate and confuse, the building throughout comprises uneven wall and floor planes, hard, uncompromising materials, and a structure that is counter to the usual museum layout. Rather than a progression of gallery spaces behind a grand façade, at IWM North small doorways reveal oddly jagged spaces, a sloping floor and a main exhibition space where individual galleries have been replaced by a large open space containing a series of silos or small rooms (Figure 3). The silos and the surrounding main exhibition space contain museum content based, primarily, on provocative juxtapositions of peoples' stories and key objects as well as imaginative installations intended to provoke discussion and debate (Figure 4). Throughout the Museum, art is displayed and often juxtaposed with authentic historical objects, as a route to generating curiosity and prompting questions. The main exhibition space is also used for displaying the Big Picture Show, a series of filmic installations which engulf the entirety of the main exhibition space and the visitor experience for ten minutes every hour and which range in content from *Horrible Histories*, a film aimed directly at children, to *Remembrance*, a film containing highly emotive stories of loss (Figure 5). The result is a dramatic museum experience that is purposefully fragmented, disorientating, affective, experiential and cinematic and which intentionally sets up experiences that are challenging both in terms of their content and their interpretive strategies.

INSERT FIGURES 1-6 HERE

Whilst the architecture and displays at IWM North are clearly high quality and, overall, visitors are very satisfied with their experience, visitor evaluations undertaken at the Museum over the last 10 years show that a high proportion of visitors are reluctant to return.<sup>14</sup>

Although visitors are attracted by the Museum's interpretive architecture – many cite the building as a main reason for visiting – they also describe their experiences of fragmentation, disorientation and confusion in negative terms.<sup>15</sup> Linked to this and the various interpretive challenges that the Museum sets up, many visitors describe the Museum in ways which suggest that it is difficult to navigate, impersonal, overpowering and lacking in depth. In the decade following the opening of the Museum, the derelict site to the back of the Museum has been redeveloped and now, rather confusingly, the main entrance to the Museum faces the 'wrong' way. Inside, there is no single visitor route and most visitors double back on themselves, only entering the Water Shard to use the café (Figure 6). As a further complication, visitors to the Museum don't behave as expected; in the Big Picture Show for example, the assumption was that people would keep moving around the space, experiencing the show and its movement, from multiple vantage points. In actual fact, visitors stop to watch the show, only moving around again once the show has ended and the light levels have increased. Despite a number of adaptations intended to mitigate against the kinds of experiences reported by visitors – including an additional entrance on the now populated canal side of the Museum, a brighter foyer given over, mainly, to shopping, and the addition of bench seats from which visitors can watch the Big Picture Show - visitor evaluations have continued to raise the same issues, and concerns have grown within the IWM organisation

around the perceived inflexibility of the architecture and the uncompromising nature of elements such as the Big Picture Show.

As part of a process of research and strategic decision-making at IWM North, RCMG were asked to undertake a piece of research which dealt head-on with these issues and which explored the visitor experience in relation to the nature of the subject of war and conflict and the very specific architecture of the Museum.<sup>16</sup> Following a model of research used in a small number of previous RCMG projects,<sup>17</sup> a multi-disciplinary, cross-sector research team was drawn together which included academic researchers, an architect and museum designer and a number of senior colleagues from IWM North.<sup>18</sup> The composition of this team was critical to the success of the research. The Museum staff would bring a deep knowledge of IWM North and the issues at the Museum but also significant levels of museum knowledge and practice to the research. The academic team would bring to the project specific areas of expertise in museum design, museum learning and ethical approaches to the interpretation of challenging content as well as particular methodological and academic ways of thinking and doing. Finally, the involvement of an architect was key and was a conscious attempt to utilise design thinking and design knowledge as part of the research methodology.<sup>19</sup> Acknowledging and encouraging these different ways of thinking and doing, and building them into the research team, would mean that the team was better able to generate questions which would reach to the very heart of the research puzzle.

Stage 1 of the research comprised a critical review of a diverse array of existing research and documentation relating to visitors to IWM North and commissioned over a 10-year period, as a route to identifying patterns in visitors' perceptions of, and responses to, the Museum.

Stage 1 also involved the production of a series of working papers drawing together a body of academic research considered to be of direct use to the project. Three working papers were developed, each mapping out research in the following areas: 1) the physicality of the



museum experience and the role of built forms in shaping experience; 2) the interpretation of difficult and challenging histories; and 3) museum learning and visitor engagement. Stage 2 of the research comprised site visits and analysis of the current provision in light of the learning from the research undertaken at Stage 1. A number of ideas were developed at this point and worked up in a visual format, in order to further explore the physical structure of the building and its interpretive potential. Finally, Stage 3 of the research drew together the full research team in a creative process intended to review the academic and design-led research in detail and draw out the implications for IWM North. During the workshop, the team also began to test possible alternative approaches to interpretation at IWM North, not as a route to redesigning the Museum *per se*, but as a route towards encouraging a direct engagement with the physical museum and identifying a set of core principles or values and a framework within which future decision making might take place. Finally, following the creative workshop where a large amount of data was generated, the findings of the research were distilled and drawn into a highly visual report. The following sections of this paper introduce some of the main findings to emerge from the process under three key themes: from curating objects to curating experience; from designing exhibitions to designing structures to facilitate engagement; and finally, the manifestation of mission in space.

#### **Key findings from the critical review of visitor research**

- ❖ Visitors couldn't find the entrance;
- ❖ Visitors felt uncomfortable/disorientated in the bunker-style foyer and the main exhibition space;
- ❖ Visitors expected more detail/layers of information;

- ❖ Visitors didn't know what was expected of them/how to behave;
- ❖ Visitors didn't use the Main Exhibition Space as expected during the Big Picture Show;
- ❖ The Museum was unsure about the role of the Big Picture Show in the museum experience;
- ❖ The Museum was unsure about the challenging architecture and its impact on the museum experience.

### **From curating objects to curating experience**

IWM North was developed as a highly interpretive museum. The Museum comprises a forceful piece of architecture intended to generate emotional, sensory and critical responses from the initial image of the exterior of the building and the story it helps to tell, to the challenging and highly affective experience of moving through its interior spaces and exhibitions. Similarly, the approach taken to history and interpretation at the Museum is purposefully impressionistic and affective; the Museum utilises the stories of others, the power of selective physical traces from the past, the reflectiveness of art and drama and the physicality of experience, as a route to provoking an active, sensory and emotional engagement in its visitors. As a result of these characteristics – which would come to be described by the research team as the Museum's 'brilliant peculiarities' – the team recognised the need for a sophisticated approach to the built forms of the Museum which would acknowledge both their power and their involvement in visitor experience.

A useful starting point was found in the work of Juhani Pallasmaa. An architect and theorist, Pallasmaa has explored the haptic and sensory potential of architecture and highlighted a multi-sensory architecture which, he argues, gives way to a more reflective mode of experience and a sense of time that is 'healing and pleasurable'.<sup>20</sup> Drawing attention to natural and historical settings where the passage of time is present, Pallasmaa describes environments which speak to our peripheral vision and in which we are, as a result, implicated as feeling, sensory beings. What is so interesting about IWM North is that the built forms and interpretive strategies *do* work to harness, in Pallasmaa's terms, our peripheral vision; that is, to engage us bodily and as feeling and sensing beings. At IWM North, the sensory potential of architecture and its involvement in our experience is harnessed with great skill. However, rather than seeking Pallasmaa's route to healing and pleasure, at IWM North the haptic and sensory potential of architecture is harnessed to make us feel overwhelmed, disorientated and uncomfortable.

In addition to drawing attention to the active and complex involvement of built forms in experience and the potential to utilise design as a key interpretive strategy, the team was keen to ensure that the project was built on an understanding that architecture is produced as much through occupation and use, as it is through design. Here, the work of Jonathan Hill was particularly helpful in establishing use as a key focus for the team and for reminding them that the building produced by Studio Daniel Libeskind is only part of the story.<sup>21</sup> Rather, architecture exists in a constant state of production and re-production through, in large part, inhabitation and use. More than this, built forms give out clues to users about what is and isn't possible in the space. Drawing here on Gibson's notion of 'affordances for action', the team rehearsed their understanding that architecture is both activated by and active in users' experiences.<sup>22</sup> Throughout our lives, we build up a 'history of interactions' between ourselves and the environment on which we draw in our day-to-day experience.<sup>23</sup> Through this history

of interactions, we learn how to behave in certain kinds of spaces and develop our ability to operate (and, potentially, limit our actions) in the social world in ways that are expected and accepted. In the context of IWM North, all of these ideas took on added significance and it became clear that the visions of use, dialogue, deep thinking and critical engagement imagined by the teams creating the museum professionally, are not necessarily played out in reality. At IWM North, the building confounds our prior experience of museum visiting and makes it difficult for us to utilise our existing knowledge. What are we meant to do here? How are we meant to behave in the Big Picture Show? How do we interpret and navigate the entrance to the Museum? How do we make sense of the thoughts and emotions we feel in this place? And how does this relate to our usual experiences in museums?

Another way in which architects and designers approach the idea of human beings reaching out into the world to make sense of that world is through the concept of narrative. Narrative is a useful term for talking about museum and exhibition making and has a long history of use in this way. Curatorial teams often refer to exhibition narratives pointing to the stories or ideas that are created and laid over an exhibition space. Similarly, we hear exhibition designers drawing on techniques from film-making and storytelling, conceptualising exhibitions as three-part dramas or as beginning, middle, and end. Here, narrative is acknowledged as having a spatial character and space is recognised as having narrative potential; narrative can structure our sense of space and spaces can ‘hold’ or ‘carry’ narratives. More than this, physical space – as a medium – can convey, as a result of our movement through it, a sense of time and an unfolding of experience that a purely verbal or textual medium cannot. Clearly IWM North is designed with some of these ideas in mind. That said, the team agreed that more could be done to offer a narrative curve; to help visitors feel that they are progressing through their museum journey and to ensure that the visit as a whole is consistent, that it makes sense.

If architectural theory began to offer a route towards understanding some of the fundamental ways in which built forms are implicated in experience, elsewhere, researchers have focused specifically on museum experience and the team was keen to supplement the more fundamental knowledge about the built world with any relevant museum-specific findings. A number of interesting sources emerged as central to our concerns. From sociology, for example, we were able to draw on visitor studies that acknowledged the place of the physical in the experiences of visitors to museums and heritage sites. In 2003, Bagnall argued that visitors map their experiences physically, emotionally, and imaginatively, selectively constructing ‘worlds based around their own experiences’.<sup>24</sup> Data collected by Bagnall at two heritage sites suggested that visitors practiced a form of reminiscence informed by performativity. She argued: ‘the relationship between visitors and the sites is based as much on emotion and imagination as it is on cognition. Moreover, this emotional and imaginary relationship is engendered by the physicality of the process of consumption’.<sup>25</sup> Counter to received wisdom in architecture which tells us that architecture is experienced in a ‘state of distraction’, this work would seem to suggest that in the museum and heritage visit, the physical site and the physicality of moving through that site are not just key, but sometimes take precedence. For the team at IWM North this finding was not a surprise, though Bagnall’s study provided one of the only empirical pieces of evidence available.

INSERT FIGURE 7 HERE

During the creative workshop and in addition to reviewing the working papers, the team utilised a number of techniques for drawing attention to the physical and sensory components of the visitor experience, and for both exploring ways in which the team might draw the physical material of the Museum more firmly into the thinking of the staff and integrate it

more fully in the visitor experience. Most fundamental to this process was an activity where the research team mapped the visitor experience. Intentionally idealistic, the activity demanded that the team imagine a visitor or group of visitors approaching the Museum and the range of thoughts and emotions that they might experience as they entered and moved through their visit (Figure 7).

The activity generated a number of findings for the group. First, it became clear that in the shift from thinking about curating objects in space to, as the Museum demanded, the curation of experience, the Museum's visitors began to take centre stage in the research and design process. The activity enabled the team to generate detailed discussions around each element of the visit and the ideal range of actions, sensations, and emotions that each phase of the visit might provoke. Linked to this, the generation of an idealised visitor experience brought a rigour and clarity to the process of reviewing the existing visitor experience, enabling the team to question the sometimes conflicting narratives that the Museum sets up and expose moments of confusion. For example, the approach to the Museum and the feelings of curiosity, anticipation, and awe that the building might inspire, were recognised as being challenged somewhat by the mesh security fence around the perimeter of the Museum which insists that visitors remain at a distance until they approach the entrance (Figure 8). Rather, the team began to imagine a visitor arriving at the Museum and having the opportunity to walk around the building and under the overhang on its north-east corner. Regardless of the inevitable differences in actual experience between multiple visitors, the idea of visitors being able to experience the scale and dynamism of the architecture in relation to their own bodies, was felt to be more in keeping with the overall aims of the visitor experience. Similarly, the narratives of nostalgia and romantic visions of life on the Home Front embodied in the music and merchandise in the shop, were recognised as introducing competing and confusing narratives of war and conflict at the very start of the visit (Figure

9). Most significantly, the exercise, undertaken in full recognition of the architectural theory discussed above, drew direct attention to the intimate relationships between visitors' physical, emotional, and cognitive journeys around the Museum, reinforcing the team's recognition of the need for IWM North to effect a shift from curating objects in space to curating and perhaps also aligning the total physical, cognitive, and emotional experience (Figures 10 and 11).

INSERT FIGURES 8-11 HERE

### **From designing exhibitions to designing structures to facilitate engagement**

The difficult nature of the content at the Museum was rightly identified by the IWM North team as central to the project. As the focus of the second working paper, the team reviewed a large body of research around difficult histories, challenging exhibitions, and dark tourism. Whilst the project as a whole benefited greatly from the vast literature in this field, it was a short essay by Bonnell and Simon, published in *Museum and Society* in 2007, which provided some of the most helpful concepts and enabled the group to find a language to express its desire to position discussion of the physical Museum within an ethical framework. This was felt to be important for museum design generally, but vital for a museum focusing on stories of war and conflict.

For Bonnell and Simon, difficult exhibitions are a 'terrible gift', which implicate viewers in histories of violence and suffering and demand an empathic response. As they write:

... what is difficult about historical knowledge is not just that the materials exhibited elicit anger, horror and disgust, and judgments that past actions were shameful and unjust. More to the point, what defines the difficult exhibit is what happens in that moment when one receives the gift that an exhibition enacts,

when one comes face to face with the troubling consequences of ‘the otherness of knowledge’. What happens in this moment is an experience that mixes partial understanding with confusion and disorientation, the certainty of another’s fear and suffering with one’s own diffuse anxiety and disquiet. This is an experience produced when one’s conceptual frameworks, emotional attachments, and conscious and unconscious desires delimit one’s ability to grasp and settle the meaning of past events: one’s sense of mastery is undone. Unsurprisingly, such moments elicit self-protective ego defences. For example, one may identify with the other to the extent of losing oneself, and, as a result, fail to grasp the implication of one’s difference from others. At the other extreme, one may seek to distance oneself from those who have experienced violence by belittling the significance of their experience.<sup>26</sup>

This is a fascinating statement in relation to IWM North as it not only serves as a useful reminder that the experience sits between the visitor and the physical material presented, rather than in the physical material itself, but also shows that difficult content already challenges, already disorients, and already places great demands on the visitor. At IWM North, the emphasis on human stories of suffering delivered as a highly emotive visitor experience, in a highly affective and challenging environment, and using provocative juxtapositions of object and story as well as highly impactful artworks to deliver its messages, increases the demands placed on visitors even further. Through a detailed discussion of Bonnell and Simon and the incorporation of their key concepts into the project, the team recognised the need to change the emphasis from feeling that it had to redevelop the Museum to create improved and more effective displays, to discussing ways to support visitors with tools and structures towards successful experiences which *are* challenging, *do* demand an engagement with the experiences of others, and *might* offer the potential of



creating new, critical insights and actions. Interestingly, this was an emphasis which would inevitably require some redevelopment of the Museum, but which might also open the door to a more on-going, visitor-focused, and experimental approach to museum making.

The emphasis on structure and support was explored at both macro and micro levels. At the macro level, the process of mapping an idealised visitor experience (Figures 7, 10 and 11) illustrated the value of an easily identifiable visitor route around the Museum with a curated beginning, middle, and end; although conceived in the workshop as a single route, the team recognised the possibility of a slightly more complex route, if fully explained and harnessed in wayfinding materials. Here, the building, previously perceived as being the root cause of visitors' frustrations and difficulties, was re-assessed and embraced as a large memory device; a three-part structure with great potential to provide the overarching rationale for the visitor experience and help visitors through what would at times inevitably be a challenging, fragmented, and disorientating experience. The building can both disorientate and unsettle but, if utilised effectively as part of the experience itself, it can also be active in supporting the visitor experience. The use of signage and the presentation of the building on the website and in printed material can also help the visitor to be more aware and appreciative of the museum architecture. Raising the awareness of the existence of the three shards would help people to understand the outward expression of the building and to relate to the experience of the sequence of spaces throughout their journey; from approach and anticipation, through arrival and orientation, into focused attention and the gradual experiencing of the stories the Museum has to tell, through to the reflection and processing of thoughts and feelings and, finally, towards the exit, shopping, experiencing the view from the air shard, and providing an opportunity to donate.

Pushing this analysis further, the team was able to take each aspect of the visitor journey and ask questions about the uses encouraged by the physical spaces. The approach to the Museum

and the area in front of the original entrance was recognised as offering considerable scope for some level of interpretation of the building and the museum prior to the visit. In addition to a clear articulation of the visitor experience utilising the physical structure of the building, the open-air site could be utilised to reveal key features of the Museum or reflections on the museum experience. Once inside the building, the foyer was recognised as needing to provide a simple focus on information, orientating the visitor in relation to the exhibition experience, orientating the visitor in relation to the visitor services and, as will be discussed in more detail below, orientating the visitor in relation to the values and priorities of the Museum (Figure 12). Recognising the foyer as a preparation space for visitors highlighted the need for the feel of the foyer to be aligned with the content of the Museum and raised a whole series of questions about how we might use art or film or more traditional kinds of museum display to inspire visitors, to help them understand IWM North as an organisation, and to prepare them for the journey ahead.

Moving deeper into the visit, the desire to support visitors with clear orientation and explanations of the work of the Museum was also extended to the main exhibition space. At present, visitors are thrown straight into a challenging and dark environment comprising art, artefacts, graphic interpretation and, every hour, the Big Picture Show. Continuing to apply the methodology to the entire visit revealed the need for the main exhibition space to include some level of welcome as well as physical and conceptual orientation (Figure 13). More than this, the analysis highlighted the cinematic nature of the Big Picture Show. Rather than fully exploiting the exhibition environment as a place to experience film and sound in space differently, the narrative structure of the filmic presentations are similar to that which visitors might experience on a television; a situation exacerbated by the current seating which is pushed back against the walls and which encourage a separation between visitors (who become observers) and a full, bodily experience of the Museum. The team began to explore

how placing the seating elements as islands in the centre of the main exhibition space might encourage visitor movement during the Big Picture Show and how the integration of interpretive elements which cater to the needs of specific visitor groups, such as young children, might also diversify the experience and offer more opportunities for choice (Figure 13). Despite the positive response shown in the visitor survey, the seeming completeness of the Big Picture Show experience and its cinematic quality could well be a factor contributing to the reducing number of repeat visitors. Completing the application of the methodology to reassess the sequence of the visit, insisting on a single route and moving visitors towards the exit via the Water Shard and the rear staircase, would mean that the shop could be relocated towards the rear of the foyer and be encountered at the end of the visit along with the seating and other visitor services (Figure 14). Finally, exiting via the Air Shard and taking time to ascend the Tower would create a ‘grand finale’ to the experience and generate opportunities for further reflection and dialogue.<sup>27</sup> Regardless of whether these specific design solutions were acted upon by the Museum, the process illustrated the potential of the research methodology to reach significant and fundamental recommendations.

INSERT FIGURES 12-14 HERE

In addition to providing the large overarching physical and conceptual patterns of understanding before and during the visit as a route to enabling visitors to successfully navigate a purposefully disorientating experience and leave the Museum feeling some sense of completion, recognition of the content of the Museum as a ‘terrible gift’ emphasised the need for care to be taken at the level of display and content. IWM North aspires to an active experience where an engagement with the stories and feelings of others and the use of

heightened levels of affect, lead to forms of critical engagement. The Museum is highly successful at generating emotion; at harnessing the physical material of the Museum, its collections and its interpretive media, to generate affects. However, the review of the visitor research raised significant questions about whether the Museum was providing enough detail and, importantly, context, to support visitors in moving beyond feelings of discomfort or rage or disgust, not to mention the whole array of personal connections and emotions that other people's stories prompt in many visitors, to the larger questions of the causes, course, and consequences of war. Here, the third working paper on learning and active engagement confirmed that certain structures needed to be put in place in order to support visitors to immerse themselves in the IWM North experience and build the engaging, challenging, and critical experiences imagined by the Museum; that is, to support visitors as they physically, emotionally, and cognitively map their journeys around the Museum.

For example, research by Tomkins and Gibbs on the relationship between affective, sensory and cognitive forms of knowledge, suggest that they are closely intertwined and none are completely in charge. Gibbs stresses that Tomkins' work implies that 'there can be no 'pure cognition', no cognition uncontaminated by the richness of sensate experience, including affective experience'.<sup>28</sup> This reframing of cognitive, sensory, and affective knowledge underlines the significance of each of these aspects of our experience and reinforces the crucial importance of ensuring that museums are designed with this understanding in mind. In Trafford, the IWM North is highly effective at making us *feel* through the expressive use of media and through the tight editing of people's stories and voices, but the team recognised the need for this to be balanced and developed by more concrete content through which visitors might build detailed engagements with specific stories. Influenced by the findings from a decade of visitor research, the team felt strongly that if handled carefully, this approach would not lessen the emotional effectiveness of the Museum or the feelings of

discomfort and disorientation but would, rather, make the museum experience deeper and more memorable.

In addition to interrogating the amount of content and context available to visitors to the Museum, the research team explored the visit in relation to the types of activity it encourages. For example, two of the key ways in which IWM North seeks to provide visitors with opportunities to process their thoughts and feelings is through the generation of dialogue and the facilitation of reflection. Discussion and debate are recognised by the Museum as vital to the development of critical engagement and the challenging and upsetting content of the Museum demands that space is given for active and contemplative forms of reflection. Yet, close analysis of the content of the Museum through the lens of the idealised visitor experience revealed that opportunities for dialogue about specific topics or issues are limited to the people who choose to interact with the in-gallery explainers and that curated opportunities for reflection are almost entirely absent. Whilst debate, dialogue, exchange, and reflection are modes of experience that are highly valued by the team at the Museum, at the present time the physical Museum and the ways in which it is occupied seem to encourage a far more passive form of use. Although the project was limited in how far it could go with this work, the team began to explore how the Water Shard might become a space for the active curation of a more reflective mode of visiting and how questions and active dialogue might become more prominent throughout the Museum. Recognising that the space is made as much through use as it is through design, the project highlighted the urgent need for high quality examples of design that successfully facilitate certain forms of engagement and for the design community to engage more fully with the design for use agenda.

### **Building identity: manifesting mission in space**

Throughout the course of the project, the team delivered a number of presentations and workshops at conferences and did this far earlier than would ordinarily be the case. The aim was to talk openly about the project as it developed, test out preliminary findings on different groups of experts, and use the opportunities offered at these events as ways of developing the analysis. In these discussions, one of the key questions that remained unanswered and problematic was the question of repeat visitors. Always introduced as it was at the start of this paper (as potentially linked to the difficulty of the visitor experience at IWM North), discussion around repeat visitors remained wedded to questions over the survey methodology that generated the findings; that is, would any visitor ever choose to say that they plan to return immediately following a difficult and challenging experience. In addition to this, the linking of the question of repeat visitors to the difficulty of the visitor experience appeared to some to assume a desire to make a difficult experience more palatable as a route to generating repeat visits. Understandably, some people found this distasteful even though colleagues who had experience of working on interpretation at sites where the content was difficult could give numerous examples of ‘toning down’ highly emotive content. If our approach at IWM North was to add structure and support, both at the level of the overall visit and at the level of engagement with specific stories, there were numerous other examples of interpretation being softened in order to ensure that visitors would not be left undone.<sup>29</sup> However, as the project progressed and as the team drew on its research around the actions of physical forms and their production through use, a more sophisticated understanding of the possibilities of the space in relation to the creation of identity and loyalty began to emerge.

In the creative workshop, one session with staff explored the projects they were most proud of and which they felt most effectively embodied the values of IWM North. During this session, it became very clear that the work of the Museum goes much further than the visitor experience and that this work was highly valued by the staff. For example, the Museum runs

an award-winning volunteer programme and a dynamic and impactful family learning programme. Both of these programmes link, in terms of content and values, to the exhibitions and displays at the Museum and both are absolutely rooted in the locale. Yet, despite the relevance of this work to the large number of people from the north-west who visit the Museum, there is no opportunity to learn about or see the outputs of this work during a visit. Whereas the educated visitor might be able to ‘read-off’ the values of the Museum from its approach to history and interpretation, no conscious attempt is made to show the organisation, what it cares about, who it works with, why it does this work or, how people can get involved.

As the research progressed, it became clear that some of the issues affecting the Museum were outcomes of the way in which the northern outpost was established and the lack of clarity around its identity and relationship to its sister museums in London. Within the IWM family, IWM North was developed as the edgy younger sibling where new and challenging approaches to interpretation and media would be used as a route towards a different kind of visitor experience, but without an explicit sense of the values driving the Museum or a clear statement about who it was for. The lack of certainty around its differences – as a National Museum in a regional setting – and the lack of confidence in its physical, designed forms, has impacted the ways in which the team in Trafford inhabit the building and reduced, as a result, the number of traces they leave behind for others to discover; from a visitor perspective, the values and work of the Museum are invisible. Just as visitors are not being encouraged to use the Museum creatively and, through that use, take a full and active part in its making, so staff are not actively shaping the Museum in order to tell visitors about IWM North, what matters to the organisation and why. A finding that would need testing, the lack of any narratives about the organisation in the physical experience is a missed opportunity to excite visitors about the organisation and, potentially, generate loyalty.

## **Conclusion: new museum design cultures**

IWM North is a unique museum in a very specific context that, as a result of its ‘brilliant peculiarities’, opened up the opportunity to engage with contemporary questions of architectural, physical, and material experience in incredibly deep and creative ways. The project was an academic exercise. The brief for the project team was to explore the architecture in relation to the content of the Museum and the visitor experience. The methodology developed by the team meant that we were able to do this in a way which went directly to the heart of the Museum’s work and the full involvement of the Museum’s senior staff meant that the project has been able to deliver relevant, located, and meaningful findings. In many ways, the answers were already in the visitor research; visitors were unable to find enough content in the Museum to satisfy their curiosity and the overwhelming emphasis on emotion wasn’t, on its own, enough. That said, the project went much further in that it drew attention to the ways in which buildings and other physical aspects of a visit assert themselves in our experience. In relation to the already difficult content of IWM North, this is significant. The Museum takes already difficult and challenging content and makes it even more difficult by adding challenging architecture, new and demanding interpretive approaches, and by constructing, physically, a fractured, disconcerting, and unrecognisable museum experience. Recognising the content of the Museum as a ‘terrible gift’ regardless of these additional demands placed on visitors, the project reinforced the importance of an ethics of museum design and highlighted the ethical responsibility of museums to provide structures to facilitate engagement and support visitors to engage as well as to process their thoughts and feelings. In this sense, the project provides a starting point for a future ethics of museum design and begins to suggest the need for a framework or set of principles within which museum designers might work.



Developing IWM North also provides a fascinating example of how museum design research can impact museum development. The project valued academic research and challenged those involved to explore how museum design research could provide answers to specific questions and how it might inform a wider decision-making process. Excitingly, the complexity of the project forced the team to revisit their ideas and assumptions and to utilise a whole range of ways of thinking and doing, towards the explication of a very real set of issues and problems. The project proved highly beneficial for all those involved. It provided the Museum with a way of understanding its physical environment and visitor experience as well as a methodology for rigorously interrogating its narratives and spatial cues. More than this, the project began to provide a framework within which decisions about space use, interpretation and, importantly, ethical design, could be taken. Significantly, the project achieved what it set out to do, which was to insist on the direct involvement of the physical material of the Museum in the research focus and process, as a route to ensuring a closeness to the designed forms of the Museum, a recognition of the active nature of those forms, and the potential to shape them from a sophisticated, research-led, and visitor-centred position.

Whilst the nature of the project resulted in a very specific methodological approach and the delivery of a robust intellectual framework within which to consider some of the issues at IWM North, the ‘brilliant peculiarities’ of the Museum and the full commitment of the team at North enabled a form of museum design research to emerge which was recognised by all involved as something significant and worthy of further thought. One of the key characteristics of the project was the way in which it actively sought to break down boundaries between design, academia, and museums. The project was based on an open and enlightened valuing of academic knowledge, museum knowledge and design knowledge and their respective and established ways of working. The project team and the methodology worked hard to prioritise each of these ways of knowing and to allow them to influence the

direction of the group's thinking and findings. Turning designers into researchers, the process elevated design and design thinking from processes often understood in museums as involved in the translation of content, to a way of knowing and doing that could generate new knowledge and understanding otherwise invisible to the project team. More than this, the process demanded that the designer on the team opened their mind to a range of forms of knowledge from the ways in which people learn to the complexities of difficult content and the need for an ethical approach to museum design. Similarly, pushing and empowering academics with expertise in learning, engagement, and design as well as museum professionals with in-depth practical expertise across an array of specialist areas, to think like designers, proved highly productive. Forcing everyone to reach beyond their usual working methods resulted in a new form of targeted and genuinely cross-sector, multi-disciplinary museum design research.

Most significantly in terms of future research and development, the project showed the value of design thinking and a research-led approach to museum development; harnessing the possibilities of museum design for a more fundamental thinking through of the visitor-centred missions, values, visions, and making of museums. Chipping away at the always awkward relationship between museums and design when approached within a commercial framework, the project began to reveal other possibilities for museum design and highlight the potential for a loosening of our understanding of how museum design happens. The project offers a concrete example of museum design research that left a positive mark in an organisation, pushed at the boundaries of museum design, and delivered highly impactful experiences for all those involved. The team is now thinking about how this can be taken further. What might museum design look like, if approached as research?

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<sup>1</sup> Earlier examples in the English speaking world include the brilliant texts by Michael Brawne, the ‘how to’ guides of practitioners such as Margaret Hall and Roger Miles, and the deeply theorised and still immensely important body of work which emerged around the politics and poetics of exhibitions in the 1990s. See for example: M. Brawne, *The New Museum: Architecture and Display*, London: Architectural Press, 1965; M. Hall, *On Display: A Design Grammar for Museum Exhibitions*, London: Lund Humphries, 1987; R.S. Miles and M. Alt, *The Design of Educational Exhibits*, London: Allen and Unwin, 1982; R. Geenberg *et al* (eds.) *Thinking About Exhibitions*, London: Routledge, 1996.

<sup>2</sup> For a schematic overview of developments in museum design see P. Hughes, *Exhibition Design*, London: Laurence King, 2010.

<sup>3</sup> There are some excellent examples of this growing group driving the design and research agenda in various ways. See for example the conference organised by Central Saint Martins, University of the Arts London in April 2014. Aimed firmly at designers and design students, the conference set out to explore design for participation. Online. Available HTTP: <http://www.re-xd.org/> Accessed 25/11/14.

<sup>4</sup> See for example the chapters in S. MacLeod (ed.) *Reshaping Museum Space: Architecture, Design, Exhibitions*, London: Routledge, 2005; S. Macdonald and P. Basu (eds.) *Exhibition Experiments*, Malden: Blackwell Publishing Ltd, 2007; C. Marshall (ed.) *Sculpture and the Museum*, Aldershot: Ashgate/Henry Moore Institute, 2011; S. MacLeod, L. Hanks and J. Hale (eds.) *Museum Making: Narratives, Architectures, Exhibitions*, London: Routledge, 2012.

<sup>5</sup> There is a need for more historical studies of exhibition making and archiving. There are a small number of excellent examples such as: M. A. Staniszewski, *The Power of Display: A History of Exhibition Installations at the Museum of Modern Art*, Mass.: MIT Press, 2009.

<sup>6</sup> See for example, L. Bedford, *The Art of Museum Exhibitions: How Story and Imagination Create Aesthetic Experience*, Walnut Creek, CA: Left Coast Press, 2014; J. H. Falk and L. B. Dierking, *The Museum Experience Revisited*, Walnut Creek, CA: Left Coast Press, 2012; T. Roppola, *Designing for the Museum Visitor Experience*, London: Routledge, 2014.

<sup>7</sup> See, for example, G. Bagnall, ‘Performance and performativity at heritage sites’, *Museum and Society*, 1 (2), 2003, pp. 87-103; A. Witcomb (2013) ‘Understanding the role of affect in producing a critical pedagogy for history museums’, *Museum Management and Curatorship*, 28 (3), pp. 255-71; S. MacLeod, *Museum Architecture: A New Biography*, London: Routledge, 2013.

<sup>8</sup> See for example, S. Greenberg, ‘The Vital Museum’, in S. MacLeod (ed.) *Reshaping Museum Space: Architecture, Design, Exhibitions*, London: Routledge, 2005, pp. 226-37; T. Duncan and N. McCauley, ‘A Narrative Journey: creating storytelling environments with architecture and digital media’, in S. MacLeod, L. Hanks and J. Hale (eds.) *Museum Making: Narratives, Architectures, Exhibitions*, London: Routledge, 2013, pp. 288-97.

<sup>9</sup> F. Den Ouden, *Space, Time, Narrative: The Exhibition As Post-Spectacular Stage*, Aldershot: Ashgate, 2011.

<sup>10</sup> S. MacLeod, L. Hanks and J. Hale (eds.) *Museum Making: Narratives, Architectures, Exhibitions*, London: Routledge, 2013.

<sup>11</sup> This isn’t a new idea but see, for example, N. Bell, ‘An End to the Curatorship?’. Online. Available HTTP: <http://www.eyemagazine.com/blog/post/an-end-to-the-curatorship>. Accessed 1<sup>st</sup> December 2014. Some of the more exciting and equitable approaches to the design of cultural spaces can be found outside museums; see, for example, the approach taken in the Battersea Arts Centre Playground Project. Online. Available HTTP: <http://playgroundprojects.bac.org.uk/>. Accessed 1<sup>st</sup> December 2014.

<sup>12</sup> E. Gurian, ‘Skimming Along: A Reflection on Forty-Five Years of Exhibition Issues’, 2014. Online. Available HTTP: <http://choasforum.weebly.com/uploads/2/4/5/3/24530080/ehgurianapril2014.pdf>. Accessed 1<sup>st</sup> December 2014.

<sup>13</sup> See for example the research progressed at the University of Leicester; *Creative Space, An International Conference Exploring Museum and Gallery Space As A Creative Medium*, 2004. Online. Available HTTP: <http://www2.le.ac.uk/departments/museumstudies/exhibitions-and-events/creative-space-brochure>. Accessed 1<sup>st</sup> December 2014; *Narrative Space, An International Conference Exploring the Interpretive Potential of Museum Architecture and Design*, 2010. Online. Available HTTP: <http://www2.le.ac.uk/departments/museumstudies/documents/narrative-space-brochure>. Accessed 1<sup>st</sup> December 2014. Each of these projects has involved a progressive widening of the partners and an increasing sophistication in the thinking of the various contributors. That said, it remains the case that many designers feel excluded from the debates surrounding museums and there is clearly a need for cross-disciplinary and cross-sector collaboration.

<sup>14</sup> Since opening, IWM North has commissioned a large number of visitor studies from a range of market research consultancies. The focus of these studies varies and includes evaluations of particular projects, pen portraits of visitors and marketing-led assessments of the visitor experience based on qualitative interviews. Across these wide-ranging reports, a number of key themes emerge including: balancing visitors’ desire for a

day out with the need to represent the horrors and experiences of war; confusion around wayfinding and orientation; concerns around the lack of deep content; and, linked to this, lack of visitor progression from an initial emotional response. In 2003, a key research report for the museum found that 90% of visitors are unlikely to return regularly, even though 92% of visitors were either satisfied or very satisfied with their visit (Morris Hargreaves McIntyre, *Engineering Emotion or Building Relationships?: Understanding Brand Loyalty for the IWM North*, 2003, p. 27). Whilst there are questions to be asked about the research methodology utilised across this vast array of research and the lack of consistency from report to report, the key recurring issues have led to great uncertainty at the Museum and are given added significance by dwindling repeat visitors. Repeat visits were reported at 27% in 2013, a drop of 6% since 2010. Overall, the research suggests a lack of clarity amongst visitors – 70% of whom come from the immediate region – about the focus and logic of the Museum.

<sup>15</sup> See for example, Morris Hargreaves McIntyre, *Informing the Development of a New Big Picture Show*, 2004.

<sup>16</sup> After some discussion with the team at IWM North, a research question was set as follows: Accepting the givens of IWM North (the content/the building/the location/the Museum's identity as a national museum in a regional setting), how might the site, the building, the content and the museum's interpretive strategies, most effectively enable meaningful, engaging, active and ongoing visitor experiences?

<sup>17</sup> Variations on the methodology had been developed previously on projects with New Walk Museum and Historic Royal Palaces. See, J. Dodd and S. MacLeod, *Establishing A Vision: New Walk Museum and the Story of Leicester*, Leicester: RCMG, 2013. Online. Available HTTP:

<http://www2.le.ac.uk/departments/museumstudies/rcmg/publications/establishing-a-vision-new-walk-museum-and-the-story-of-leicester>. Accessed 1<sup>st</sup> December 2014; S. MacLeod, R. Sandell, J. Dodd, T. Duncan, C. Jones, A. Gaffekin, *Prisoners, Punishment and Torture: Developing New Approaches to Interpretation at the Tower of London*, Leicester: RCMG, 2014. Online. Available HTTP:

<http://www2.le.ac.uk/departments/museumstudies/rcmg/publications/prisoners-punishment-and-torture>.

Accessed 1<sup>st</sup> December 2014.

<sup>18</sup> The team included: Graham Boxer (Director, IWM North); Jocelyn Dodd (Director, RCMG); Zoe Dunbar (Head of Exhibitions, IWM North); Tom Duncan (Director, Duncan McCauley); David Hopes (Research Associate, RCMG); Suzanne MacLeod (Director, School of Museum Studies, University of Leicester); Charlotte Smith (Head of Learning and Access, IWM North); Camilla Thomas (Visitor Programmes Manager, IWM North); Janet Uttley (Head of Marketing and PR, IWM North); Claire Wilson (Special Exhibitions, IWM North). Stages 1 and 2 of the research would involve the academic researchers and the architect/designer and Stage 3, where the research would be analysed and explored in relation to IWM North, would involve the whole research team.

<sup>19</sup> There is a vast literature on design thinking which is a term generally used to refer to a particular design process which proceeds from defining and empathising with an audience, to refining design questions, generating ideas, prototyping solutions and testing outcomes. Here, however, we use the term in a far more open and exploratory way to refer to the ways of thinking and knowing that a designer – someone with spatial and design skills, knowledge and awareness – can bring to a design research project.

<sup>20</sup> J. Pallasmaa, 'Hapticity and Time', 1999. Online. Available HTTP:

<http://iris.nyu.edu/~rcody/Thesis/Readings/Pallasmaa%20-%20Hapticity%20and%20Time.pdf>, p. 4. Accessed 23 April 2012.

<sup>21</sup> J. Hill (ed.) *Occupying Architecture: Between The Architect and The User*, London and New York:

Routledge, 1998; J. Hill, *Actions of Architecture: Architects and Creative Users*, London and New York: Routledge, 2003.

<sup>22</sup> J. J. Gibson, *The Ecological Approach to Visual Perception*, Hillsdale, NJ: Erlbaum, 1986; J. J. Gibson, 'The theory of affordances', in R. Shaw and J. Bransford (eds.) *Perceiving, Acting and Knowing*, Hillsdale, NJ: Erlbaum, 1977, pp. 67-82.

<sup>23</sup> For an introduction to these ideas see J. Hale, 'Narrative Environments and the Paradigm of Embodiment', in S. MacLeod, L. Hanks and J. Hale (eds.) *Museum Making: Narratives, Architectures, Exhibitions*, London: Routledge, p. 198.

<sup>24</sup> G. Bagnall, 'Performance and performativity at heritage sites', *Museum and Society*, 1 (2), 2003, p. 96.

<sup>25</sup> Ibid., p. 87.

<sup>26</sup> J. Bonnell and R. I. Simon, 'Difficult exhibitions and intimate encounters', *Museum and Society*, 5 (2), 2007, p. 66.

<sup>27</sup> At present, the Air Shard is separated from the visit by a turnstile and an entrance charge.

<sup>28</sup> A. Gibbs, 'Disaffected', *Continuum: Journal of Media and Cultural Studies* 16.3, 2002, 335-41.

<sup>29</sup> Elaine Heumann Gurian offered up the example of the Jewish Museum in Washington where, at a key moment during development, interpretive strategies were altered as a result of a very real concern that visitors would be left completely undone.

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