8

A sense of scale

The miniaturisation of boats and maritime landscapes at the Science Museum London, 1925–63

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> There is growing realisation of the importance of attempting to make the display attractive to the eye: attractive in a double sense, i.e. drawing the eye to that which is essential in an exhibit and also attracting the visitor by the beauty of the presentation (Science Museum Documentation Centre, Board of Education files Ed 79/180, Report for the Advisory Council for the Year 1952, 36).

These words are taken from a Science Museum report written in 1952. It describes the reasoning behind the museum's use of dioramas – three-dimensional modelled scenes – utilised in showcase displays for new galleries within new buildings on its postwar South Kensington site. The British Small Craft exhibit is one such set of dioramic displays. Set within an ocean liner-themed gallery, the British Small Craft exhibit was the brainchild of the curator William O'Dea and was installed in 1963 as part of the Science Museum's new Shipping Gallery (Figure 8.1). Until the gallery's closure in 2012, it comprised a sequence of 20 showcases containing models of British coastal fishing boats arranged primarily by geographical region. Many of the displays included accessory models and landscape settings, including human figures and painted backdrops. The majority of the craft displayed were acquired well before 1963 – some were collected during the 1930s while others can be traced back even further to the International Fisheries Exhibition of 1883 (Fenner 2014).

Figure 8.1 Portland Lerret in its 1963 showcase in the Shipping Gallery. Inventory 1938–461. Scale 1:16 (© Science Museum/SSPL).

Researching the miniature at the Science Museum

This chapter focuses on aspects of my doctoral research, an AHRC collaborative doctoral award shared between the Geography Department at the University of Nottingham and the Science Museum London that focused on the miniature world of the British Small Craft boat models and displays. Following the Shipping Gallery's closure in 2012, the aim of this project was to produce a historical and cultural geographical account of these British Small Craft displays held within the Science Museum. This chapter considers the former British Small Craft displays as an illustration of a vernacular marine regional world of miniatures set within a national science museum. As models and displays, they capture the variety of fishing and pleasure craft that populated the coastal and inland waters of the British Isles while also symbolising the curatorial identity of the museum during the period (Fenner 2014). Tracing the ownership and manufacturers of some of the models and the work of diorama artists, this chapter will highlight the nuances and processes behind these miniaturisations. In doing so it also draws on the unique, alluring aesthetics of this mimetic medium – where the eye 'is the critical organ' in the viewing of these dioramic scenes, allowing a visitor to have temporary ownership of a miniature world removed from reality (Haraway 1984: 24; Nahum 2010: 179). Through the museum's boat models and

displays, this chapter speaks to wider debates surrounding the miniature world – the complexities, deceptions and subtleties at play in the manufacture, scaling and implementation of these miniature maritime worlds.

Through this story of the British Small Craft displays it will delve deeper into the miniature dioramic worlds created at the Science Museum, tell the rich narrative of dioramas at the institution, explain how they were manufactured and show how O'Dea's curatorial vision became a reality. In doing so, using some of the displays from the British Small Craft Exhibit by way of example, it will highlight the rich dioramic display heritage at the museum and a sense of scale both in terms of the models themselves and the modelled displays that accompanied them. The chapter will also stress the exhibit's geographical presentation of regional areas of the British Isles on a national stage – playing into the museum's thinking at that time that science and engineering should include vernacular historical maritime technologies alongside modern and contemporary developments. Moreover, it reinforces the importance of the miniature in museological displays – deceiving, informing, intriguing and entertaining the viewer; drawing them ever closer into the narrative of a particular museum's gallery space purely through their three-dimensional designs and inclusion of perspective.

What is a diorama?

Jane Insley describes a museum diorama as 'a form of 3D model, showing a scene, an event or a landscape, which has been commissioned for a particular exhibition purpose' and explains that there are two main forms (Insley 2008: 27). First there are 'painted models', which are scenic backgrounds that give context to actual scale models; and second there are 'modelled paintings', which are complete modelled scenes. 'Owing to the skewed perspective that often characterizes modelled paintings, objects that appear free-standing may not, in fact, remain upright outside this type of diorama' (Insley 2008: 27). The challenge for the artists and craftsmen involved in producing dioramas, Insley suggests, was to go from a life-sized foreground scene to the distant horizon in a matter of a couple of feet.

Insley also refers to Karen Wonders' research on habitat dioramas, although she strongly disagrees with Wonders' belief that scenes showing technological or human activity 'fail to arouse the *trompe l'oeil* effect that is the aim of the habitat diorama' (Wonders 1993: 17). Insley argues that Wonders has missed an important distinction between these two categories. 'If habitat dioramas aim to trick their audience with an illusion of reality,

dioramas containing human subjects do not. More often than not, their purpose is not to deceive but to convince' (Insley 2008: 27). Although Insley may have a point here, it is difficult to fully appreciate, as historic human-subject dioramas do deceive viewers with the blending of perspective and distances of the modelled foregrounds and painted backdrops. In my view both habitat and human-subject dioramas deceive and convince the viewer in equal measure: the one producing the *trompe l'oeil* effect of a live animal, the other recording a historical event accurately in miniature form.

As the displays of the British Small Craft exhibit varied in size, style and composition, in my doctoral research I gave close attention to their designs and layout. The displays, which contained modelled scenes and partial scenes, were divided between three categories: complete dioramas, modelled foreground landscape scenes and painted backdrops.[1] The complete dioramas were displays that made a complete three-dimensional scene out of part or the entire space of each showcase – this incorporated a modelled foreground scene and painted and modelled backdrop, which blended into each other to create the desired perspective and distance effects. The modelled foreground displays depicted scenes with no backdrop, usually focusing on a specific boat model in the corner of a showcase. Some other showcases, however, did not contain modelled foregrounds, consisting only of the model(s) set in front of a painted backdrop.

Yet the research went beyond this simple categorisation of the dioramas. The displays as visual objects were embedded in a much broader theoretical debate concerning iconography, symbolism, imagery and visual methodologies. The analysis of the displays combined the visual (the displays themselves) with the textual (the archives), giving a better understanding of the geographical knowledge at play. As argued by Daniels, DeLyser, Entrikin and Richardson, the study of the Science Museum Small Craft displays provided 'a mixed medium of image and text, designed for telling as well as showing, plotting time as well as space, including making and remaking the terrain of cultural memory' (2011: xxvii).

However, the imagery and visuality of these museum displays could also be considered from a geographical perspective, as they depict British modelled landscape and coastal scenes. As suggested by Daniels and Cosgrove, 'a landscape is a cultural image, a pictorial way of representing, structuring or symbolising surroundings' (1988: 1). Cosgrove explains that landscapes are not intangible but are also reflected in many material forms and on many surfaces: 'in paint on canvas, in writing on paper, in earth, stone, water and vegetation on the ground' (1988: 1). Therefore, in order to understand built landscapes like these museum

dioramas, 'it is usually necessary to understand written and verbal representation of it, not as "illustrations", images standing outside it, but as constituent images of its meaning or meanings' (Daniels and Cosgrove 1988: 1). From a methodological angle, studying these dioramas as miniatured landscapes opens up opportunities for further meanings, 'depositing yet another layer of cultural representation' on them and engaging in notions of iconography – the historical examination of symbolic imagery (Daniels and Cosgrove 1988: 1).

Indeed, these British coastal museum displays as visual iconographic representations of landscapes were viewed by museum-goers as images that contained 'layers of meaning that include[d] their formal aspects, their cultural and socio-historical references, the ways they ma[d]e reference to the images that precede[d] and surround[ed] them, and the contexts in which they [we]re displayed' (Sturken and Cartwright 2009: 42). Before providing some examples of the dioramas and the models of the British Small Craft exhibit, this chapter will tell the story of how the miniature world came to the Science Museum.

Dioramas and landscape in miniature at the Science Museum

> In each of the boat models for the Children's Gallery, made to show the evolution of the built boat from the log, one or more human figures were placed to give the scale and also to show the method of working the boat; the success achieved suggests that the addition of similar figures to some of the models in the main galleries would enable the public to appreciate more readily the size and purpose of the boats represented (Science Museum Advisory Council Report 1931).

This extract is from the Advisory Council Report on the opening of the Science Museum's Children's Gallery in December 1931. The new gallery, as Bunney explains, 'was a combination of working models showing scientific principles in action, such as time measurement and lifting apparatus, and dioramas showing the development of subjects such as transport and lighting', which included the use of some small boat models (Bunney 2010: 197). Far from the traditional display techniques of glass cases, this was the first sign 'of new approaches and influences' within the museum towards methods of exhibiting (Nahum 2010: 178).

For the Science Museum, the display method changes came in the 1920s. Andrew Nahum explains that during this period 'retail window

dressing and shop display techniques became an admitted influence on Science Museum exhibits' (Nahum 2010: 178). Insley has discovered that the twentieth-century use of dioramas in South Kensington dates back to 1924 (Insley 2008). For the next three decades, headed by Raphael Roussel, a studio of independent artists supplied and served the Science Museum with a series of dioramas to help illustrate many new galleries. It is amongst these artists, after 1945, that the dioramas, modelled scenes and painted backgrounds of the showcases of the British Small Craft exhibit were created. Insley surmises that the appeal of dioramas to visitors is 'the lure of the brightly lit miniature in a darkened room' (Insley 2008; Nahum 2010: 179). Nahum takes this further by affirming, 'There is something intriguing and quite mysterious in the encounter with a model which we empathise with but do not fully understand' (Nahum 2010: 179).

Ludmilla Jordanova alternatively suggests that 'the idealisation present within a "model" indicates clearly a kind of longing that is implicit … in models as material objects' (Jordanova 2004: 448). Nahum simply concludes that 'our viewing of a model whether as child or as adult, allows us to "own" the scene briefly in a way in which we are powerless to do in the real world' (Nahum 2010: 179). Therefore, the appeal and extensive use of dioramas by the Science Museum during the interwar period and later 1950s lay 'partly in the human attitude to small things, coupled with an appreciation on the part of curators that this [wa]s a strongly emotive way to provide context for items from varied types of collections' (Insley 2007: 200).

Therefore, the miniature can prove to be, in museological terms, a powerful method and tool of museum display. The importance of the miniature is highlighted by Stewart: 'There are no miniatures in nature; the miniature is a cultural product, the product of an eye performing certain operations, manipulating, and attending in certain ways to the physical world' (Stewart 1984: 55).

Thus, by the postwar years, 'museum exhibitions began to be held on subjects which would have been inconceivable to many curators of a previous generation' (Lawrence 1994: 73). As a consequence of shop window influences in the 1920s, 'the association with prominent architects and designers with the Festival of Britain made it evident that the bar had been raised [at the Science Museum], and that design was now an almost expected component of modern display' (Lawrence 1994: 182). It is visits to Sweden, by O'Dea and Welbury Kendall (the architect of the Science Museum's new extension Centre Block), that gave inspiration to the Agriculture Gallery and those that followed it, including the group of six dioramas created for the chemistry collections and installed in the

Figure 8.2 Raphael Roussel touching up his Medieval Ploughing diorama in 1953. It was classified by Insley as a 'modelled painting' (Insley 2008) (© Science Museum/SSPL).

Gas Gallery that opened on 25 May 1954 (Lawrence 1994: 180–1; Insley 2007: 200). Albeit within the small-scale context of the museum's displays, this Swedish visit, and the subsequent galleries and display designs produced as a result of it, are emblematic of the broader influences of continental modernism at work in Britain during the period. It was within this wider continental modernist design setting of the 1950s and 60s, and specifically in these various dioramic projects within the museum during the period, that Roussel and his art skills came into their own. Roussel was instrumental in the many dioramas that framed the Agriculture Gallery, including the Medieval Ploughing scene (Figure 8.2).

O'Dea, the new Centre Block and the postwar Science Museum

The Sailing Ships Gallery's story can be traced back to November 1930, when William Thomas O'Dea began his career at the Science Museum. Born in 1905, O'Dea had a background in electrical engineering.

On 15 December 1936 at the Science Museum he opened a temporary exhibition entitled *Electric Illumination*. As David Rooney explains, 'bright, brash and brilliant, the exhibition was a deliberate attempt to popularise the latest products of industry and technology in an interactive, hands-on display that promised, according to Lord Rutherford, the nuclear physicist who gave the opening speech, to be "of great interest not only to scientists, but to every man, woman and child"' (*The Times*, 16 December 1936, quoted by Rooney 2010: 158). Young O'Dea's work here hinted towards a new form of curatorship – displays that both entertained and informed visitors.

After the Second World War, the Science Museum was 'well-nigh desperate' for new buildings (Parsons III 2010: 78). Salvation came to the Science Museum in the form of the Festival of Britain. Festival organisers approached the museum in the hope of gallery space for their exhibition of science. Described as a 'tonic to the nation' by the director, the festival aimed to boost the stricken national morale of postwar Britain, reflecting on the country's heritage whilst also promising the public glimpses of the technological and scientific advances of the future (Addison 1985; Conekin 1999; Anderson 2007: 107).

After five months, in September 1951, the Festival of Britain ended, leaving the Science Museum in full possession of the partly completed new Centre Block. Its first permanent gallery in the new building was the Agriculture Gallery. Influenced by the display techniques and methods of O'Dea, the gallery was the first to have dioramas 'deployed on a major scale' since their introduction into the institution in the 1930s Children's Gallery. As David Rooney writes, 'O'Dea … had maneuvered his way through global and local politics to get his world view stamped indelibly into the bricks and mortar of the Science Museum.' O'Dea's curatorial signature was also translated and 'stamped' onto the 'bricks' of the Sailing Ships and Aeronautic Galleries in the 1960s (Rooney, 2010: 167).

In September 1955 O'Dea set out his plans for the new gallery in a document titled 'Proposals for the Display of Sailing Ships and Small Craft in the New Centre Block'. As the gallery would feature a central display area complete with a mezzanine level, O'Dea proposed outward-facing display windows in this 'island space' with schemes in place 'for the treatment of groups of fishing vessels in scenic settings' in dioramas ('Proposals for the Display of Sailing Ships and Small Craft in the New Centre Block', September 1955, SMD Ed 79/144).

For the purposes of O'Dea's Sailing Ships Gallery, of the display cases depicting dioramas and other artwork, these were executed by

at least three individuals: Mr Gordon Whatman, Mrs Jenny Clements and Roussel's protégé Mr Dunstan Mortimer. In an article of the period Gordon Whatman explained the method and processes by which the dioramas were constructed. In order to achieve 'a new concept of display techniques' it had to be agreed at the planning stage that:

> If any progress in museum display was to be made it was essential for the designer to deviate from the conventional, and produce a series of technical displays, well lit, easily maintained and of high instructive value' (Whatman 1963: 1).

Whatman further argues that this required a 'flexibility, objectivity, and an "un-museum like" approach, based upon the logical needs of the models' (Whatman 1963: 2). The first stage was a general discussion concerning a particular group of boat models. From these discussions it was concluded that 'whenever possible, the boats should be placed in front of settings associated with dressed figurines of the period and constructional details shown in photographs' (Whatman 1963: 2). Alongside the many initial consultations with museum staff, the next stage was to 'construct a scale mock-up of the proposed exhibit' with a scale of 2 inches = 1 foot, made, in three dimensions, predominantly out of cardboard, as shown in Figure 8.3 (Whatman 1963: 2). The advantage of these mock-ups was that:

> It enabled extensive experiments to be made with lighting, eye levels, covering materials, positions of labels, etc, without associated loss of time in alterations on the full size display (Whatman 1963: 2).

Once the design was agreed upon, the completed mock-ups were sent directly to the craftsmen in the museum's workshops.

> This method proved very successful, the craftsman scaling up from the original, translating it into blockboard, and always being able to refer back to the completed display in model form. This system disproved the necessity for working drawings and allowed the craftsman to solve his problems in his own individual way, provided, of course, he kept to the original design of the exhibit but enabled the creative momentum to be sustained even at the constructional stage (Whatman 1963: 2).

The resultant degree of efficiency of this system was clear:

Figure 8.3 Jenny Clements and Gordon Whatman making the cardboard mock-ups for each of the displays of the Sailings Ships Gallery dated in the early 1960s. Notice the variety of display mock-ups already constructed above them on the shelves and also the advertising poster for the gallery in the background. Image courtesy of the Science Museum curator Jane Insley. (© Science Museum/SSPL).

> This co-ordinated channelling from the initial idea to the completed display enabled seventy-four settings to be finished with a minimum of site alteration (Whatman 1963: 2).

However, Whatman concludes that the success of the 'gallery project' was 'the direct relationship to the close dovetailing of the group consisting of: Head of Department of Sailing Ships, Research Assistant, Workshops, Art Assistants and Designer' (Whatman 1963: 2).

After two years of construction and installations, the Sailings Ships Gallery was opened to the public in March 1963 with the Aeronautics Gallery following soon after in July. In a preview article in the *Sunday Times* it was announced that:

> a war against boredom is being waged at the Science Museum … Instead of row upon row of glass cases, planes are suspended in mock flight from the roof of a hangar … and ships and boats are displayed in the form of real ocean-going liners. The man who is waging the war is a 58-year-old Lancastrian keeper at the Museum, Mr W.T. O'Dea. He considers the traditional museum in Britain 'awful' (*Sunday Times*, 3 February 1963).

For O'Dea, the 'war had been won against boredom' as the new gallery boasted a rich array of objects on display that were linked to all elements of the historical and contemporary marine that was in the name of science and technology. Bar the British Small Craft models, in the central display area foreign craft, yachts, sailing warships and ancient craft in miniature form representing a variety of time periods and nationalities were also exhibited in a mixture of dioramic and painted-backdrop displays.

The displays for the British Small Craft exhibit varied in scope, scale, design and geographical coverage. They showed some of the completed dioramas accompanied by images from specific coastal locales that influenced their design and construction. Some dioramas were just foreground pieces without any backdrops or modelled backing, such as the Norfolk and Suffolk and Peter boats and Dobles displays (Figure 8.4).

While some displays were complete modelled foreground scenes and painted backdrops, others depended solely on the foreground modelling to create eyecatching and dynamic nautical images. The Medway Doble model in Figure 8.4 is a good example. Here the fisherman is leaning over the side of his boat on the mud flats of the Kentish river, taking out the last of his catch from the 'wet-well'. A seagull watches from a mooring post, eagerly awaiting the chance of snatching a fish. The date and creator of this scene are unknown but what is certain is that achieving the correct scale proved just as difficult in making these scenes as it had been to make the boat models initially. As O'Dea's curatorial colleague William Bathe, in a conference paper on the new gallery given in 1961, explains, in some cases the museum resorted to drastic solutions:

> In this display showing small craft of the Thames estuary there is a realistic setting for the Medway doble model and as the scale of this model is very different to that of the other two a scale human figure and a sea gull are included. I might add that there was some argument about the size of a sea gull and the Museum illustrator ended up in the Natural History Museum with a stuffed sea gull to measure (Bathe 1961).

Figure 8.4 The Medway Doble model in its modelled landscape foreground scene complete with fisherman and gull. When creating such scenes, scale was just as much a difficulty as when manufacturing the models themselves. (© Science Museum/SSPL).

The issue of scale was not solely relevant to the dioramas; it also proved challenging in the creation of the boat models themselves. Prior to O'Dea's 1963 Shipping Gallery and the dioramas, the Science Museum's boat model collections were expanded in the 1920s and 30s thanks to the curator Geoffrey Swinford Laird Clowes. Laird Clowes joined the museum in 1924 and was placed in charge of the ship and boat model collections. As the report announced on Clowes's appointment:

> This will enable more work to be carried out on the group of collections illustrating Water Transport, which have for long past constituted too heavy a charge for a single museum officer (Science Museum Advisory Council Report 1924, 1925).

For the next 13 years until his untimely death in 1937, Laird Clowes expanded the ship and boat collections, culminating in an exhibition of British Fishing Boats in 1936, which was preceded by temporary exhibitions on Rafts, Canoes and Boats (1931), British Fishing Boats and Coastal Craft (1932) and Native Boats (1933) (Follett 1978: 123; Morris and von Fischer 2010: 318). It was Laird Clowes's tenacity and technical knowledge that ensured the high quality and correct scale of the boat models that came into the museum's collections – from commissioned work, auctions and donations.

The model of the Brixham trawler *Valerian* is a prime example of the challenges brought on by the making of something miniature. Depicting

the original full-size vessel built in Devon in 1923, the model was made and presented to the museum by the owner: Mr T.N. Dinwiddy. As a letter to Dinwiddy from Laird Clowes states, 'you may decide to undertake the making of a scale model of a Brixham Trawler. I sincerely hope that you will do so, for I need not explain to you how much I regret that this Museum contains no satisfactory representation of one of those splendid boats among its large collection of models of British Fishing Boats.'[2] In a much later letter from Dinwiddy to Laird Clowes, the former suggests the *Valerian* – 'one of the big sloops' – as the best typical example (Dinwiddy 1933). In that time he was able, as he puts it, 'to measure and record her lines – working in a sea of anti fouling paint!' (Dinwiddy 1933). It is from these line drawings, as a frame of reference, that it was possible for him to build the model.

During the making of the model, in later correspondence, Laird Clowes was helpful in recommending certain materials and techniques to have the eventual desired effect on certain features of the model. In a letter dated 19 March 1934 he suggests that Dinwiddy use water paint over oil, use a particular type of cordage for the hull and for the sails, and 'use the fine linen which has been sold in great quantities under the name of aeroplane linen' (letter from Laird Clowes to Dinwiddy dated 19 March 1934).

Clowes went on to explain the methods used for dyeing sail canvas to the right colour by re-dyeing and washing the fabric. The importance of scale also came into the construction process, with Clowes insistent on his preference of a scale of '1:24 as being the smallest in which all details, both of hull and of rigging can be properly shown' (letter from Laird Clowes to Dinwiddy dated 17 February 1933). This shows firstly that Clowes was very knowledgeable about different boat types and modelling, but more importantly that his authority and expertise as a curator extended beyond the physical boundaries of the museum. In the case of the commissioned making of the Brixham trawler model he could give precise instructions about how the model should be made and what it should look like. The question of scale here and for other models was of the utmost importance for Clowes. As James Roy King observes, 'scale can enter richly into the experience of both the viewer and the creator of the model … A very small scale will blur detail or render detailing impossible, and too large a scale may commit the modeller to a level of detailing impossible to carry out in reasonable time' (King 1996: 12). Two years after he began work, Dinwiddy confirmed that the model was complete, and it was accessioned as a gift into the museum's collections on 25 February 1935 (SMD Nominal File 4494/1/12, 1935).

There are other examples where the importance of scale to Laird Clowes was crucial to the successful making of a model commissioned by the museum. From the file of correspondence associated with the Norfolk Wherry model, a clearer, more powerful narrative of scaled modelling and methods of manufacture emerges. In a letter dated 28 June 1927, a Mr Leonard Walker replies to Laird Clowes:

> I have been making enquiries regarding a model of a wherry. A Mr Darby of Oulton Broad [Yacht Owner and Agent] who did my houseboat also builds models and he could get in touch with a certain Mr Hall at Reedham … who has a model and possibly drawings which Mr Darby could borrow to make a model wherry for you if you still require one (letter from Mr Leonard Walker to Laird Clowes dated 28 June 1927).

It transpires that Laird Clowes is delighted at the news, and in his response he details the specific requirements for the model:

> What we want is a model of a trading wherry of as early as possible, untouched by later outside influences. As those which I have seen are about 50 ft. long, a model on a scale 1:24 (half an inch to a foot) would suit us best, but it would be kind of you if you would impress on Mr. Darby that accurate scaling in all proportions is of the first importance to us (letter from Laird Clowes to Mr Leonard Walker dated 29 June 1927).

The reference to 'untouched by later outside influences' is interesting here. It not only gives an indication of Laird Clowes's degree of personal knowledge, but it also implies that he wishes to have an exact model that will be a true representation of that particular boat type for that particular region and environment. He concludes with more specifics, saying:

> A properly framed and planked model is most desirable, but failing that we might consider a model with a block-hull, although in that case it would probably not be worth going in for a model on a larger scale than 1:48 (half an inch to a foot) (SMD T/1927–822).

As with the Brixham trawler model, the notion of scale is very prominent here, with Laird Clowes knowing the right measurements and proportions for the model to be as accurate as possible. Although Laird Clowes insisted on the scales 1:24 and 1:48 for models commissioned and other gifted or

loaned models entering the museum, the range of scales within the collection differed considerably depending on the type of craft being represented.

The manufacturing method of the model is also of interest here, as it indicates the two main possible techniques of making a boat model either from one block of wood or plank by miniature plank, strut by strut, built the same way as the original full-sized vessel. The Norfolk wherry model, made at a scale of 1:16, was later accessioned into the collections in September 1927 (SMD Nom. 2616/1/1).

Conclusion

In May 2012, after nearly 50 years of being open to the public, the Shipping Gallery was closed to visitors. The closure set in motion the gradual removal of the entire contents of the gallery to make way for a new communications gallery – Information Age – which opened in October 2014. The British Small Craft models were among 1800 objects decanted from the space and are now stored in the Science Museum's storage facilities in Kensington Olympia. During the removal, objects and their displays were professionally photographed and their individual computer database records were updated. The photographing of the displays was particularly important, as the backdrops and dioramas were not registered inventory objects like the boat models themselves. Consequently, with concerns over health hazards such as asbestos and lack of storage space, the backdrops and dioramas were destroyed, leaving the photos as the only lasting tangible evidence of their existence in the showcases, making my research all the more valuable and important.

Before the objects were removed from the space, a virtual three-dimensional map of the gallery was produced. Using the latest 3D point-cloud scanning technology in collaboration with ScanLAB Projects and UCL's Digital Humanities teams, the space was scanned. During the gallery's removal the team took 275 laser scans of the space, creating two billion precise measurements. Using just 10 per cent of the extensive original raw data from these scans, a 3D virtual tour video was published online in July 2013, giving the visitor an intangible fly-through experience of the gallery (Figure 8.5).[3]

Narrated by the then Curator of Time, Navigation and Transport, David Rooney, the video flies through the gallery, giving the viewer a guided tour of the virtual exhibition space. The tour is augmented by some highlighted examples of prominent objects from particular aspects of the gallery space that had been on display, giving a true sense of the

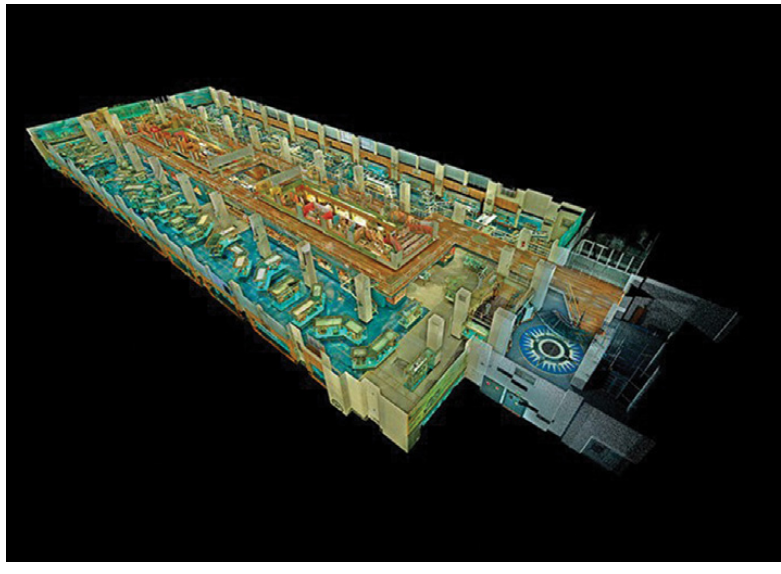

Figure 8.5 Still from the virtual tour of the Shipping Gallery showing the whole of the exhibition space in intricate detail. The gallery was laser scanned before the 1,800 objects were removed, making a digital video tour record of one of the Science Museum's longest-serving exhibition spaces. See http://www.digitalartsonline.co.uk/news/motion-graphics/science-museum-reveals-3d-model-of-shuttered-gallery/, 2013. (© Science Museum/SSPL).

range and variety of the Science Museum's extensive marine collections. As Rooney explains in the introduction to the video, the pioneering nature of the project meant that the scan has presented the space 'in an entirely new way. A unique permanent record of a unique historic exhibition.'

Later, the video pans left along the linear stretch of British Craft displays on the main floor of the space to show some of the models and dioramas. Rooney explains in the voice-over that the gallery was not just about big oceanic liners and warships; it was also about showing 'the anonymous handmade boats people used around the world just to get by', in other words small craft. Concluding the point, Rooney goes on to say that 'by making these models, we were trying to preserve a lost way of life'. Focusing on the ship's figurehead in the centre of the gallery, Rooney reflects that 'at its heart this gallery was all about people', a sentiment that is certainly illustrated through the internal and external discussions surrounding the design of the gallery, the history

of aspects of marine engineering and the model-makers and donors involved in the expansion of the British Small Craft exhibit. At the end of the video Rooney explains that the gallery presented old and new marine technologies for 50 years. Going back to the 3D display methods and techniques proposed by O'Dea in the 1950s and 60s, the video and the new laser/computer technologies used in its production resonate with Rooney's final words: 'I can't help thinking that if my predecessors had access to this sort of kit they would have done remarkable things with it. I can't wait to see how this technology develops. These guys have made a time machine.'

The virtual world created by the laser scans and video is a modern testament to the gallery, showing the exhibition space's past vibrancy, range of objects, marine-themed mediums of display and commitment to showing all aspects and developments of maritime engineering, old and new. The fly-through tour encapsulates a new nostalgic rhetoric for the gallery, one that gives a lasting image of a long-serving permanent exhibition. The video commemorates the passing of the gallery while looking forward to the museum's future, with new collections on show and the space being transformed 'to make way for some new stories'.[4] In some respects the video also successfully combats the continuing issue felt within museums, as observed by MacDonald, in that they 'labour against their own physicality' (MacDonald 2002: 30). The sweeping, gliding nature of the virtual camera through the gallery space breaks through this barrier and partially alleviates the notion that 'the objects and architecture of museums do not lend themselves to the visions of science or of the visitors that museum staff wish to materialise' (MacDonald 2002: 30). Through their technological advancement, the scans are themselves a new form of public display of science, creating a virtual world that epitomises scientific progress while harking back to older museum methods of exhibition.

Although the Shipping Gallery closed in 2012 with its contents placed in storage, and despite the destruction of the dioramas, the institution's dioramic heritage – its crafted miniature worlds – live on in images. They are remembered in photographs and in a new three-dimensional form – as laser-scanned images in a virtual tour. Through its execution, the tour hints towards new methods of display in museums. While O'Dea could be seen as the vanguard of a new form of curatorship, with expansive ideas for exhibition design through the dioramas and themed galleries of the 1950s and 60s, this virtual tour could be seen as the modern equivalent of a diorama – capturing to scale images of historical scenes through lasers and computers instead of paint, wire meshing, plaster, metal and wood. Thus, it creates a digitised miniature world displayed within a virtual video tour.

In a similar sense, each 1960s British Small Craft showcase had a dual purpose: not only as instructive showcases for the visitor, but also as displays that would also 'attract the eye and raise spirits' (SMD Ed 79/180). The Science Museum's own reports express succinctly how miniature worlds like the Portland Lerret diorama (Figure 8.1) 'fulfil the function of placing the science or industry in its native scene, and at the same time giving the imagination wings to take it out of the Museum gallery' (SMD Ed 79/180).

Notes

1. As opposed to the showcases, which just displayed the models with the minimal visual accompaniments.
2. SMD Nominal File 4494 Letter from Laird Clowes to Dinwiddy dated 17 February 1933.
3. ISee the Science Museum's webpage for the 3D point-cloud model video of the Shipping Gallery, July 2013 https://www.youtube.com/watch?v=gDTbFhFZl9I (seven minutes duration), accessed 22 October 2017.
4. Jane Insley, pers. comm., 2012. Miscellaneous document found in curator's office. Recorded tour guide script on the new Sailing Ship Gallery, author unknown (possibly O'Dea), exact date unknown but likely to be March 1963; Rooney's video narration, 2013, 6 min. 27 sec. from the beginning.

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