

6

The Agriculture Gallery: displaying modern farming in the Science Museum

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Hand sowing to helicopter

Until January 2017, visitors to the Science Museum's Agriculture Gallery could look up to view agricultural progress wrought in iron. In 1952, the year after the gallery opened, curator William O'Dea described new exhibits in the *Museums Journal*:

Above the cases on the long wall of the gallery there is a novel decorative feature, 100 ft long ... Scenes from Egyptian, medieval and modern agriculture were made in wrought iron to drawings by Ralph Lavers, ARIBA, and are displayed against a curved fibrous plaster background illuminated by fluorescent lamps. The technique is akin to that of the cyclorama and the effect is quite lively. The wrought-iron work, executed by J. Starkie Gardiner, Ltd., Merton Road, SW18, is a remarkable piece of craftsmanship.¹

Designer and architect Lavers, who had strong interests in classical archaeology and Egyptology, had in 1947 designed the aluminium and steel Olympic torch used at the 1948 London Olympic Games. For the Science Museum metal was turned to another ancient-modern spectacle, the cyclorama moving from a right-hand end of silhouettes of human and oxen-drawn ploughs, and seed broadcasting in ancient Egyptian agriculture (the scenes based on Egyptian tomb drawings), through the flailing, hand sowing, scything, harrowing and bird-scaring of medieval English husbandry, humans and horse in harness (the scenes based on illustrations from the British Museum's

fourteenth-century Luttrell Psalter), to a modern left-hand end of tractor ploughing, willow pollarding and helicopter crop spraying. Eyes moving right to left, technology would proceed, from ancient to modern, hand sowing to helicopter. A clean-lined, vividly silhouetted, strikingly modern deployment of wrought iron marked a new display of farming.

The Agriculture Gallery of the Science Museum in London opened in 1951 to display the history and present condition of farming, predominantly English farming. New technologies were then transforming agriculture in what would be termed at the time a 'second agricultural revolution'. While subject to some discussion by Jane Insley, notably in relation to its use of dioramas, and by Andrew Nahum and David Rooney in terms of the history of the Science Museum, the Agriculture Gallery deserves fuller scrutiny than it has received. Indeed Rooney noted in 2010 that the gallery had ushered in 'a new paradigm of museum display and lighting technique that is still fresh today'.² Until its removal in 2017, the gallery was a surviving relic of a powerful conjunction of science, landscape and modernity, and as with other Science Museum galleries provides insight into the exhibition of the modern in the post-war decades.³ This chapter seeks to convey the institutional and cultural context of the Agriculture Gallery's development, and the nature of its displays, which offered museum visitors a progressive story of the past and a vivid display of present and future.

The modern agricultural narratives presented in the gallery carried an environmental patriotism. If later critiques of modern farming could themselves mobilise patriotism, as when in 1980 Marion Shoard's influential *The Theft of the Countryside* identified the farmer as the 'executioner' of 'a vital part of our national identity',⁴ visions of modern agricultural landscape were also often explicitly national and patriotic, post-war developments presented as extending national wartime achievement, tapping into an English tradition of improvement, and linked to a national capacity for science and technology. Agricultural landscape imagery, far from being a symptom of nostalgia and national decline,⁵ could articulate a vision of a dynamic and technological country; 'country' in the sense of both countryside and nation.⁶ The recent UK decision to leave the European Union, and the consequent debate over agricultural policy, makes it especially pertinent to examine narratives of English farming in the period before EEC accession in 1973, and the Agriculture Gallery gives one route into the place of agriculture in the post-war English imagination. Given the prominence of questions of national identity in recent political debate, the resurgence of concern

over and for Englishness, and the likely debates to come over agricultural policy, the post-war story becomes newly resonant.

Establishing a new Agriculture Gallery

The Agriculture Gallery was a product of the post-war settlement, in terms of museum funding and intellectual outlook. The gallery was established in 1951 in the Museum's new Centre Block, and was until 2017 the last display curated in the post-war period to remain in the Museum, a unique survival of, at the time, modern and innovative curatorial practices. Windowless, and 'incorporating the latest techniques in artificial lighting',⁷ the gallery offered a confident statement of a mid-twentieth-century vision of the modern, following the wartime transformation of farming, and survived as a valuable historical artefact of the post-war period, a time when agricultural modernity was celebrated, in terms of both food production and landscape enhancement. The gallery stood for 65 years as a record, and indeed a relic, of the public communication of such technological optimism.

The initial Agriculture Gallery had a predominantly arable focus, but this was extended in 1965 with a full-size dairying display, described in Assistant Keeper of Agricultural Machinery and Implements Lesley West's 1967 account of 'An Agricultural History Museum', in the US Agricultural History Society's journal *Agricultural History*. The dairy exhibits, including 'a full-size reproduction of an early nineteenth-century dairy complete with dairymaid, and in direct contrast ... a full-size working demonstration of a modern milking parlour and dairy', complete with milking cow ('it is mechanized, giving movement to the head and tail'),⁸ were later removed as part of wider museum alterations and reorganisation,⁹ and the discussion of exhibits in this chapter primarily concerns those arable displays that survived into the twenty-first century.

O'Dea's 1952 account of 'The Science Museum's Agricultural Gallery' explained the gallery's beginnings after wartime storage, and its initially restricted coverage:

The collection of agricultural implements and machinery at the Science Museum, South Kensington, had been crated away in store for ten years when it was decided, early in 1950, that it should have 5,000 sq. ft. in the rejuvenated and extended galleries of the museum that were to be available in 1951. Restrictions

have again postponed the completion of the museum extensions so that the decision then taken only to show arable farming until new space became available is one that might not be so easy to justify now.¹⁰

In 1967 West also accounted for the arable focus, and explained the initial gallery organisation (1965 had brought a ‘complete facelift’, with new displays, models and labelling, though with the ‘basic case layout’ the same):

It was felt that within the space available only arable farming could be treated properly, and in view of the importance of agriculture to the economic position of this country and the potential export market for agricultural machinery, that the excellent historical material available should serve as an introduction to a contrasting section illustrating modern developments on the farm. On this basis the gallery was divided into three bays: the first dealing with the development of methods of tillage, the second with sowing, reaping, threshing, binding, winnowing, and milling, and the third depicting work on the modern farm.¹¹

Gallery displays included models, wrought-iron friezes, technical implements and machinery, with ‘a number of fibrous plaster figures of full and quarter scale’ made by ‘Norman Cornish, Battersea High Street, SW11’, and other improvised features: ‘The bristles from broom heads provided the raw material for cornfields.’¹² Dioramas showed contemporary and historical agricultural practices, varying according to seasons and agricultural sectors; these were the first major deployment of this display technique in the Science Museum. O’Dea described the ‘scenic backgrounds, prepared for us by contractors (A.E.L. Mash and Associates, St James’s Place, SW1)’, who also ‘made most of the models’.¹³

Displays drew in part on pre-existing Museum agricultural collections of objects and models, accumulated since the late nineteenth century, for example, showing model carts, and plough models acquired during the 1920s; A.J. Spencer and J.A. Passmore’s 1930 guide to the Science Museum’s *Agricultural Implements and Machinery* holdings had traced developments from the ‘primitive tool’ through ‘intermediate types’ to ‘modern machinery’ in arable and dairy farming, and milling.¹⁴ The establishment of the gallery also allowed the Museum to solicit donations of new machines and models from agricultural engineering companies, indicating a close relationship between the Museum as a

state cultural institution, and a modernising agricultural industry. O'Dea commented:

The agricultural collections had been due for attention in 1939, but immense strides were made in mechanization during and just after the war and it was clear that it would have been unwise to reopen the collections without a major degree of modernization. One-third of the space available was therefore reserved for modern exhibits – and that before a single item had been promised.¹⁵

In agriculture, as in other sectors, the Museum could serve as a point of conjunction for state, scientific, artistic, commercial and engineering interests. The Museum worked with the Agricultural Engineering Association, O'Dea describing recruiting agricultural firms to provide models on a uniform scale of 1:12, circulating a persuasive brochure:

The brochure was made an awkward size and the two pages were dry-mounted on boards so stiff that they could not easily be torn up or even got rid of. We circulated a dozen or more of these intimidating documents to selected firms and the result was quite amazingly good.

The Museum put firms in touch with model makers, and 'In the end we obtained about 100 models, all to the same scale, from nearly a score of firms.'¹⁶

Models often displayed their maker's name, dioramas foregrounding engineering firms as names of scientific progress, effectively advertising their product. Thus a diorama of threshing was fronted by labels noting the donated models: Taskers Trailer, Ransomes Straw Baler, Avery Sack Scales, Ransomes Threshing Machines (see [Figure 6.1](#)). Lists dated 1962 in the Museum archive show 17 firms that had already donated models, including major companies such as Ford, Ransomes, David Brown, Massey Ferguson and International Harvester. New exhibits are also specified that 'may be required afresh from AEA members':

Pre-harvesting: potato planter, transplanter, knapsack sprayer, drainage and ditching machinery, water and organic irrigation equipment, helical digger.

Harvesting: baler, combine harvester, potato harvester, hay conditioner, hay mower and crimper.



Figure 6.1 Detail of ‘Threshing’ diorama.
Source: photograph by the author, May 2010.

Crop handling: grain dryer, bulk grain hopper.

Digging machinery: post hole borer, post driver.

Shearing machinery: sheep shearing machine.

Dairying: milking parlour – full scale, the farm dairy – full scale.¹⁷

West noted in 1967 that the renewal of displays after an expansion of gallery space in 1961 included replacement of many modern models, with ‘enthusiastic cooperation on the part of the agricultural machinery manufacturers’.¹⁸ In April 1963 the Museum followed up requests for the new with a letter from West to *Farmers Weekly* asking if readers might have old dairy equipment for the new dairy display; historic milking units, churns, pails and cheese moulds: ‘Should any of your readers be

able to assist the Museum regarding the whereabouts of any of the above equipment, I would be most grateful if they would write to me.¹⁹

Time for modern farming

The Agriculture Gallery makes sense within, and gives an insight into, the cultural framing of farming in the post-war period. The wartime modernisation of agriculture through mechanisation, scientific application, the use of chemicals for fertilisers and pest control, and state support and regulation, was sustained in peace time.²⁰ The post-war decades saw the farmer cast as a modern technological custodian of the country, guided by the state to ensure food supply, with the relationship between government and farming set by the 1947 Agriculture Act, guaranteeing prices, enhancing the protection of farm tenancies, giving subsidy and promoting efficient production.²¹ Agricultural modernity was celebrated for its food output, scientific method and landscape enhancement.

This ‘second agricultural revolution’ has received little cultural historical scrutiny. Agricultural histories tend, with few exceptions, to stop at the Second World War, those studies addressing the post-war decades focusing on assessments of productivity and the mechanisms of farm management.²² The work of Abigail Woods, however, sets post-war agricultural change in animal husbandry within broader debate over the nature of modernity, and the modern outlook on nature; Matthew Holmes’ chapter in this volume indicates parallel themes around plant biotechnology.²³ Woods discusses indoor and outdoor ‘progressive’ pig production, and the role of scientific expertise, arguing for ‘a more historically situated understanding of agricultural modernity’, including attention to its own ‘romantic’ ideals.²⁴ Philip Conford’s *The Development of the Organic Network: Linking People and Themes, 1945–95* also contains insightful cultural analysis of the vision of ‘agricultural efficiency and industrial food’, which the organic movement set itself against: ‘the visions of the age to come at times verged on the realms of science fiction (though these visions have since been reduced to the prosaic by reality)’.²⁵

Mid-twentieth-century visions of agricultural technological progress have also been overlooked in popular accounts produced since the late 1960s, where the emphasis has been on modern agriculture as a source of environmental degradation, as ecologically destructive and essentially utilitarian.²⁶ Such accounts, however, downplay the cultural and indeed aesthetic appeal of agricultural modernisation, and it is important to recover narratives of agricultural modernisation in order

to appreciate their cultural power, and thereby help understand how an agricultural revolution was able to proceed with, at first, relatively little public contest. Change could be presented as in harmony with longstanding traditions of agrarian improvement, indeed as a successor to the 'first' agricultural revolution of the eighteenth century, yet the English countryside could also become the site for a modern environmental version of what David Nye, in the US context, terms a 'technological sublime'.²⁷ Whatever retrospective view is taken on the productive or destructive effects of agricultural modernity, it is important to understand the power of its transformative visions.

The romantic ideals of agricultural modernity are manifest in the Agriculture Gallery, with its combines and tractors, model and full scale. Indeed, in its content and style of presentation the gallery echoes the narratives and imagery found in a wide range of media in the period, whether in popular literature, industry publications or broadcasting. Academic voices could also generate imaginative narrative, as when, in his 1945 book *Problems of the Countryside*, C.S. Orwin concluded by imagining a Rip van Winkle figure waking up 'a generation later', i.e. in the late 1960s, to find a country transformed by agricultural progress. Orwin's figure encountered 'a spaciousness and order ... which was new', shaped by new crops and mechanisation: 'Everywhere there was the suggestion of technical changes, all of which seemed to promote a greater activity on the land'.²⁸ Orwin, Director of the Agricultural Economics Research Institute at the University of Oxford, celebrated the potential of agricultural modernisation, envisaging wartime improvements in agricultural production being extended in peacetime through planning. A new spacious order would characterise many of the Agriculture Gallery displays.

Agriculture in mid-twentieth-century Britain moved to the modern. *The Future of Agriculture*, as a 1943 collection introduced by Minister of Agriculture R.S. Hudson outlined, was one of mechanisation and scientific application, of tractors in harness and machine milking. Advertisements within *The Future of Agriculture* anticipated the Science Museum displays in presenting Ransomes ploughs 'behind the tractor', straight furrows progressing, and all-electric model dairies, the farmworker a new technician.²⁹ There is a parallel here with Ralph Harrington's discussion in [Chapter 3](#) of this volume of the bulldozer as a technology of environmental modernity. The agricultural future was also set out as advancing from the past, whether in industry publications or popular literature, including that aimed at children. Thus on the covers of Margaret and Alexander Potter's 1944 Puffin children's book *A History*

of the Countryside, back cover tractors succeed front cover old manual labour, and, inside, a pre-war landscape of 'tumble down farms' is succeeded by wartime mechanical revitalisation and reclamation: 'From gorse bracken thistles to potatoes oats and rape.'³⁰ Weeds are subdued, productive order comes.

The Agriculture Gallery carries specific connection to a wider children's culture of agricultural landscape. The extensive use of dioramas in the gallery followed on from the museum's use of this display technique in its Children's Gallery, established in 1931, which, due to its popularity with adult visitors, was also referred to as the 'Introductory Collections', featuring dioramas of transport, domestic lighting and power alongside mechanical models. Mining dioramas were added after the war.³¹ It is notable that many of the Agriculture Gallery diorama cases were low to the ground, and would have been visible to a young child unaided. West noted further appeal to children in animal models: 'The realistically modelled plastic horse incorporated into the display is a great favourite with the many young visitors to the Museum. So much so that his nose has to be painted at regular intervals, as with constant patting the surface coat wears thin.'³² If the Museum tapped into the expertise and resources of engineering companies, there was also an echo of the developing British production of toy model farm vehicles, reaching its peak in the 1950s and 1960s to dominate the world market, and comprehensively documented in the rich volumes on *Farming in Miniature* produced by Robert Newson, Peter Wade-Martins and Adrian Little.³³ A child might have looked into the agricultural dioramas and been reminded of their toys at home. The resonances between the visual culture of the museum, and that of child's play, are strong, suggestive of landscapes of novelty, wonder and control, miniature spaces fostering an ordered imaginative geography.

A celebratory popular children's visual culture of farming was also evident in magazines and broadcasting. Thus the children's educational magazine *Look and Learn's* special March 1964 'Focus on the Farmer's Year' showed cover and inside imagery of arable and livestock farming that would not have been out of place in the gallery. On the cover a boy and girl walk with their dog across fresh stubble to see a combine harvesting wheat; the dog spies a foreground rabbit fleeing the machine. The centre spread shows a main image of 'a typical farm of the eighteenth century', its colour and content echoing the gallery's historic dioramas, surrounded by vignettes of the new technologies of today: tractor ploughing, seed drills, mechanical milking, muck moving, beet harvesting, hedge trimming, harrowing, pea vining, baling,

combine harvesting. The densely populated eighteenth-century field contrasts with contemporary solo operatives working ‘the indispensable machinery, all colours, shapes and sizes’.³⁴ Labour is saved, production smoothed. Children’s television could also bring the modern farm into the urban, rural or suburban home, with programmes such as the BBC’s *Camberwick Green*, broadcast from 1966, enrolling new farming into an English landscape ideal. *Camberwick Green* presented the ‘modern mechanical farm’ of ‘go-ahead farmer’ Jonathan Bell as at one with a pastoral vision of the country, narrator Brian Cant singing as Bell moved his machinery:

A go ahead farmer is Jonathan Bell
Who works his farm and works it well
He doesn’t hold much with the good old days
In modern times use modern ways
Electric mechanical all that is new
Which does the work that men used to do
He swears by it all and he proves it too
On his modern mechanical farm.

The modernity in such representations of the country is often overlooked in nostalgic retrospect; when *Camberwick Green* series creator Gordon Murray died in June 2016, an obituary, referring to Murray’s series of ‘Trumptonshire’ programmes (*Camberwick Green*, *Trumpton*, *Chigley*), noted that ‘It was not immediately clear when these dramas were set’, and on the basis of a doctor driving a vintage car suggested ‘it was probably before the first world war’.³⁵ *Camberwick Green*’s traditionalist Windy Miller, himself devoted to topical 1960s concerns of free-range chickens and home-made cider (and thereby subject to jokes from the modern farmer), achieves retrospective prominence ahead of progressive Bell. The communication of agricultural modernity (and its alternatives) to children could, however, help make new farming an accepted part of the scenery for the wider public. Children (and parents) at the Agriculture Gallery might view the dioramas, and recall their favourite shows.

History for the modern

The Agriculture Gallery combined displays of modern farming with presentations of agricultural history, in dioramas and historic machinery. The Agriculture Gallery put historic narratives into public display,

offering the metropolitan adult or child museum visitor a modern country, a landscape of new science and bright order, yet one where history underpinned the present in a story of technological progress. Rather than display the past as the out-of-date, the Science Museum showed the historic modern, anticipating the now.

High on the gallery walls, above the diorama cases and at the same level as the cyclorama, murals by A.R. Thomson, RA, pictured the historic progress of farm machinery. The 1948 Olympics again intrudes into gallery formation; if Ralph Lavers had designed the Olympic torch, Alfred Thomson (1894–1979), known primarily as a portrait artist, muralist and war artist for the RAF, had won a gold medal for painting at the Games, the last time such medals were awarded. In the mid-1950s Thomson pictured ‘Jethro Tull 1674–1740 Inventor of a Seed Drill & Pioneer of Rowcrop Farming’.³⁶ The mural shows Tull with his new machine, watched by people of varying social classes curious as to modern novelty, as in the background distance seed is hand broadcast in a manner destined to become obsolete. In 1964 Thomson added a second mural, showing the late nineteenth-century advance of a reaper-thresher as a precursor to the modern combine harvester (a full-size example of which stood nearby); 24 horses pull the machine as a side arm reaps ripe corn. Thomson also registered gallery staff, a later label noting: ‘The lady in red in the left-hand corner ... is based on Mrs Lesley West, then Curator of Agriculture.’

Scale models of carts and wagons and threshing machines populated display cases, the models themselves sometimes marking histories of progress. A case of nineteenth-century threshing machines included: ‘Garratt’s Portable Horse-Driven Threshing Machine. This model was shown at the Great Exhibition in 1851 and embodies patents taken out in 1843, ’44 and ’50.’ The model, ‘Lent by Messrs. Garrett & Sons’, with an acquisition date of 1894, offered a direct link between the new Agriculture Gallery and the display of technological progress one hundred years earlier at the Great Exhibition. An extensive display of model ‘Primitive Hoe Ploughs’, representing examples from around the world, lent to the Museum by Major A.S.B. Steinmetz in 1926, also brought the ancient to the modern.³⁷ The plough models were given a distinctly modern display setting, in brightly lit display cases with plain, light backgrounds, put in harness to silhouette animals. O’Dea described a display economical in both design style and cost, ploughs pulled by ‘cheaply made, bent, soldered and black enamelled wire outline figures of draught animals’, including horse, ox and elephant, made in the Museum workshop.³⁸



Figure 6.2 Detail of ‘Manuring and Potato Planting, 1850’ diorama. Source: photograph by the author, November 2015.

History was also set in progressive harness in dioramas from medieval to Victorian; medieval oxen ploughing, horse ploughing, steam ploughing, progress in technology vividly rendered. A diorama of ‘Manuring and Potato Planting, 1850’ (see [Figure 6.2](#)) showed women, backs bent, facing away from the viewer, hand-planting in a just-ploughed and manured field, a farmhouse, barn and church beyond on the painted backdrop. The full diorama label gives a precise narrative of socio-technological history, and enrolls the scene into the broader narrative of gallery displays:

This exhibit is followed by a series of dioramas devoted to mechanised methods in agriculture. By contrast this scene shows the amount of field labour required to plant a potato field in 1850.

One man is ploughing while two others cut and load manure. A woman leads the manure cart from which a man forks a heap at intervals into the middle furrow of three. A woman follows, dividing each heap among three furrows. Three other women then spread each small heap along the furrow length. Three more women carry baskets of seed potatoes and lay sets along the manured rows.

Another three women are refilling their baskets from a load of seed potatoes, and will replace the first three when their baskets are empty. Finally a ploughman divides the ridges to cover in the seeded furrows.

Contrast this with the manure loader/distributor in the next scene and the mechanical potato planters, both full size and in model form, shown elsewhere in the gallery. The two drivers and three loaders can cover as much area as the 14 workers of 1850, and in a much shorter working day.

Some 14 figures populate the 1850 field. The diorama of modern potato harvesting, shown in the 'autumn' section of a display on 'Mechanised Arable Farming', featured a reduced, entirely male workforce, the only female figure in the scene painted sitting at leisure on a background fence, the label noting that 'much of the harder manual labour has been taken out of farming'. The 'next scene' referred to in the 1850 label showed a 'Massey-Ferguson Tractor With Front End Loader', a single male operator shifting manure into a vividly varnished heap. The hard labour of the past, the aching backs of female Victorian planters or medieval peasant ox ploughers, eases into the modern world.

Exhibits of more recent history showed the entry of new machines to the British agricultural field. A full-size Fordson tractor, of the type supplied by the US to boost food production late in the First World War, was displayed in the gallery, 'Lent by the Ford Motor Co.', the label stating:

The world's first mass-produced tractor rolled off the assembly line in Dearborn, Michigan, USA, on 8th October, 1917. This particular example is numbered 1857 and was probably one of the first batch to be delivered to this country. Within six months of initiating production, the entire British order of 7,000 tractors had been delivered.

A diorama of 'Tractor Ploughing, 1917' (see [Figure 6.3](#)) featuring a model Fordson prompts a further social narrative, a female tractor driver watched over a gate by a male soldier, perhaps returned from conflict, roles reversed for the duration: 'The introduction of these machines, most of which were driven by women, gave a tremendous impetus to the progress of farm mechanization in this country.' A painted backdrop showed telegraphic connection, a church spire and oast houses behind. The field carved by machines, the mud carefully modelled, the diorama could also call to mind other less optimistic images of wartime mud,



Figure 6.3 ‘Tractor Ploughing, 1917’ diorama.
Source: photograph by the author, March 2013.

such as Paul Nash’s 1918 Western Front painting ‘We Are Making a New World’, held in the Imperial War Museum. Nash’s mordant title could lend an un-ironic label to ‘Tractor Ploughing, 1917’.

In its presentation of past progress the Agriculture Gallery echoed wider initiatives in the field of farming history. The gallery was indeed established in the same period as the academic discipline of agricultural history, with the British Agricultural History Society (BAHS) and its journal the *Agricultural History Review* established in 1953. The BAHS held its preliminary meeting, attended by 420 people, at the Science Museum in 1952; a visit to the Agriculture Gallery would have been a likely part of the meeting.³⁹ The gallery also sits alongside other agricultural displays inaugurated in 1951. The 1951 Festival of Britain on the South Bank in London featured agricultural displays in the ‘Land and People’ exhibition, including modern machinery, and the Science Museum gallery echoes the ethos of the Festival in presenting a modern country building on past achievement; the Museum would itself host an Exhibition of Science as part of the Festival.⁴⁰ However, 1951 also saw the establishment of the Museum of English Rural Life (MERL) in Reading, opened to the public in April 1955, a predominantly historical collection of agricultural artefacts offering a different presentation of farming, focusing on the past rather than the present, unlike the Science Museum’s emphasis on progress from past through present to future.

Keeper John Higgs, also a key organising figure in the BAHS, presented MERL as in part an exercise in salvage: ‘the rapid technical advances of the past few years have made it more than ever necessary to save examples of the equipment of the past before it is too late’.⁴¹ MERL remains an important institution, for both its displays and its archival and library resources. Agriculture also featured in folklife museums such as the Welsh Folk Museum at St Fagans, opened in 1948, where the emphasis, as in parallel early twentieth-century European museums, notably in Scandinavia, was on tradition and folklore, rather than modernisation; Higgs cited such museums as an inspiration to MERL.⁴² Unlike other agricultural and rural life museums, then, the Science Museum’s Agriculture Gallery was distinctive in presenting a story of ongoing progress rather than a lost past, and in telling a farming story to museum visitors in London.

Vividly new

In the Agriculture Gallery modern farming became a metropolitan public spectacle. The gallery displayed new farming in various forms, including full-size machinery such as the Fordson tractor noted above, and a red Massey Ferguson combine harvester, elements of whose machinery could be set in motion. A similar red combine featured in model form in an adjacent ‘Summer’ corn harvest diorama, a McCormick International rather than Massey Ferguson, accompanied by red tractors, trailers and balers (see [Figure 6.4](#)). The farm labourer becomes machine operative, harvest taken in with ease. Visitors moved from full scale to model in a few paces, viewing harvest operations, with labels explaining various tractor specifications for visitors so inclined.

Other dioramas took in farmyard and barn, or showed operations varying by season. In one scene of ‘Early Summer’ haymaking, four men worked to store and dry baled hay, aided by the Lister Multi-Level Elevator (carrying bales to a higher level for stacking in a corrugated iron barn), the Lister Moisture Extraction Unit (‘A mobile crop drier consisting of an air-cooled 40 h.p. diesel engine driving a large axial flow fan’), and the John Deere Baler (‘Will bale and load up to 7 tons of straw or 9 tons of hay per hour’). Several dioramas showed a Kent landscape, with signature oasthouses, modern machines working the garden of England, landscape thereby enhanced rather than diminished. A diorama of ‘Tillage’ allowed push-button interaction, one press of a central button making four tractors circle a central island, each performing a different operation



Figure 6.4 Detail of ‘Summer’ diorama.

Source: photograph by the author, November 2015.

(ploughing, cultivating, harrowing, rolling), grooves and dust made and overridden in movement, into a tunnel and out again:

This demonstration is intended to give some idea of what happens to the earth under some of the various processes to which it is subjected. As it has been necessary to find a material that could be made to return quickly to its original state each time the tractors revolve, and as small-scale operations are difficult to manage, the demonstration is only intended as a general guide.

Colour and lighting made the dioramas of contemporary agriculture present farming as vividly new, a bright order of modern practice, the typical adult visitor’s eye level making the scene prospective in both commanding overview and projected future. Varnish gave a shine even to the dung shovelled by new tractors. If the tractor was by the early 1950s a not unfamiliar sight for many visitors, some operations on display were distinctly novel, most notably in the diorama showing crop spraying. If the cyclorama helicopter gave one wrought-iron evocation of this element of the agricultural future, a grounded, vividly detailed version appeared in



Figure 6.5 Detail of crop spraying diorama showing the ‘Allman High/Low Volume Sprayer’.

Source: photograph by the author, December 2016.

a diorama showing the tractor-pulled ‘Allman High/Low Volume Sprayer’ (see [Figure 6.5](#)). The styling of modern chemical farming in the English landscape in this 1951 display is striking, with no contradiction appearing between the most modern farming techniques and an idyllic English scene, and little sense of any risk to labour. John Sheail notes how the deaths of seven agricultural workers from Dinitro-ortho-cresol (DNOC) poisoning between 1946 and 1950 helped prompt the 1952 Agriculture (Poisonous Substances) Act, with regulations requiring operatives applying dangerous chemicals to wear protective clothing.⁴³ The chemical being applied in the gallery diorama is unspecified, but the implication is that chemical farming need do no harm to either operative or

environment. A man is seated, entirely unprotected, on an open Massey Ferguson tractor, trees in blossom nearby, cottages beyond, and two figures watching from an arched stone bridge. Technology becomes novel spectacle in traditional landscape: 'Allman High/Low Volume Sprayer. This tractor mounted sprayer is for the application of selective weed killers, insecticides or fugicides [*sic*]. The drift guard on the boom prevents damage to surrounding orchards, etc. Capacity 120 gallons; operating pressure 0–600 lb. per sq. in.' The tractor model is noted as donated by Massey Ferguson (United Kingdom) Ltd, the sprayer model by E. Allman & Co., Ltd.

In the 1960s the gallery could become a focus not only for the display and celebration of the new, but for critiques of agricultural modernity. The use of pesticides and herbicides became a focus of public concern following the 1963 publication of Rachel Carson's *Silent Spring*,⁴⁴ while Carson provided a foreword to Ruth Harrison's 1964 *Animal Machines*, a key British text criticising 'the new factory farming industry', highlighting the conditions of battery and broiler chickens, and intensively reared beef cattle, pigs and veal calves.⁴⁵ Further research is required here to ascertain the extent and nature of any public criticism of the gallery displays, and the dairy industry featured from this period was indeed not a focus for criticism in *Animal Machines*, but criticism could certainly occur. A letter dated 18 January 1970 from P.H. Reeve, secretary of the London-based Union of Animal Societies, devoted to 'farm animal welfare', addressed to Keeper Lesley West, reported that four Union representatives had visited the Museum's animal agricultural displays and found them 'no longer up to date' and 'seriously misleading'. Reeve asked for an impartial display (and thereby by implication an exposure) of factory farming:

Over 90% of laying poultry are nowadays kept in intensive indoor conditions; virtually 100% of broiler chickens produced in this country are kept in battery cages. This industry is very large. Yet, you have no display of poultry units or of battery cages. The majority of pigs are kept in conditions very much more intensive than those shown in your display. You show no veal calf units at all.

We make it clear that we think you should impartially represent modern farming techniques. At the moment, we consider your displays more like a public relations exercise on behalf of ideal farmers. You show the conditions of a horse in the last century. Do the chickens justice by showing the conditions of them in the latter part of this century. I should be pleased to come and discuss the matter with you.⁴⁶

Reeve suggested an expanded coverage to show the agricultural truth, implying the Museum might be cautious over showing agricultural modernity in its more contested guises. Reeve's comment on public relations indeed finds an echo in West's 1967 account of the gallery:

Soon after the gallery was opened a representative of the Farmers Union, which at the time had just spent the equivalent of \$100,000 in an attempt at educating the British public to the fact that farming was no longer a business that technologists might hesitate to enter, on seeing the new gallery, flatteringly expressed the view that the Science Museum had succeeded better on a smaller budget.⁴⁷

1951-2017

The Agriculture Gallery represented a particular conjunction of technology and environment: displaying the capacities of new technology to transform environments, using new techniques to create a new display environment, prompting public debate around technology and environment. The gallery was a documentation and celebration of technological and scientific capability, reflecting connections between a national museum and a vital national sector. Wartime experience and post-war planning shaped British farming and its representation in the gallery. New farming was presented in model form, 'model' here denoting both the miniature and the ideal.⁴⁸

After the Agriculture Gallery's opening in 1951, regular additions were made in the first two decades, but after 1970 the gallery received very few additional exhibits, with the dairying display removed for the development of other galleries. Insley notes a minor revamp of the display in 2003,⁴⁹ but the arable parts of the gallery, shaped in the 1950s and 1960s, survived into the twenty-first century, an old modernity hanging on, a fascinating snapshot from just before that key shift in the public image of agriculture under environmental critique.

In its later years the Agriculture Gallery offered modern landscape in suspension, and this suspended quality could make the gallery a peculiarly compelling space, a modern that was not modern any more, which had clung on un-updated, yet which marked a moment when curation and farming and fine-detailed modelling of mud and manure, figures and machines, met, and made a show of the new. O'Dea noted of the gallery that 'The reactions of the public, including the farmers who visit the museum, have been most gratifying.'⁵⁰ Here, for the 1950s museum

curator, for the casual passer-by or the visiting agriculturalist, was a space for today. With the gallery's passing, we lose memory of a significant past landscape of modernity.

This chapter is one attempt at a record of the gallery, but before its closure the Science Museum made a short film on the gallery's history, and its plans for a future display on twenty-first-century farming. The film was presented by broadcaster Tom Heap, known for his reports on contemporary farming and countryside issues on the BBC's popular *Countryfile* programme. I acted as an 'expert' commentator in the film, along with former Science Museum curator John Liffen, who gave memories of the gallery, and Mary Cavanagh of the Museum's exhibitions team, responsible for developing content for a new gallery on modern agriculture. The resulting short film, made by Stuart Reeves, is available on the Museum's website, and on YouTube.⁵¹ The process of film-making, and conveying the past visitor experience to present and future online viewers, gave new insights into the gallery space: the low level of the dioramas making them visible to children, the effect of the combine in operation after the relevant button was pressed. Recording the displays, especially the dioramas, for posterity, underlined the ways in which they had become effective time capsules, miniatures of an older modern.

The dismantling of the gallery closes the exhibits for direct experience, though the object displays will survive in store, with some potentially re-exhibited, and a few dioramas will be preserved, including the 1850 potato field and the 1917 tractor ploughing. Otherwise, aside from the film, a significant mid-twentieth-century display of modern and historical agricultural technologies, which captured notable dimensions of the relationship between technology and environment in modern Britain, will be gone.

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