

35. *Ploughs and Progress*

In this response our Collections Officer, Madeleine Ding, explores the history behind a series of scale models of plough types, which were made for display at the Festival of Britain. Here she reveals more about the original context of their use at the Festival but also subsequent histories of use and later display following their arrival at The MERL.

Set of model ploughs, Festival of Britain, 1951



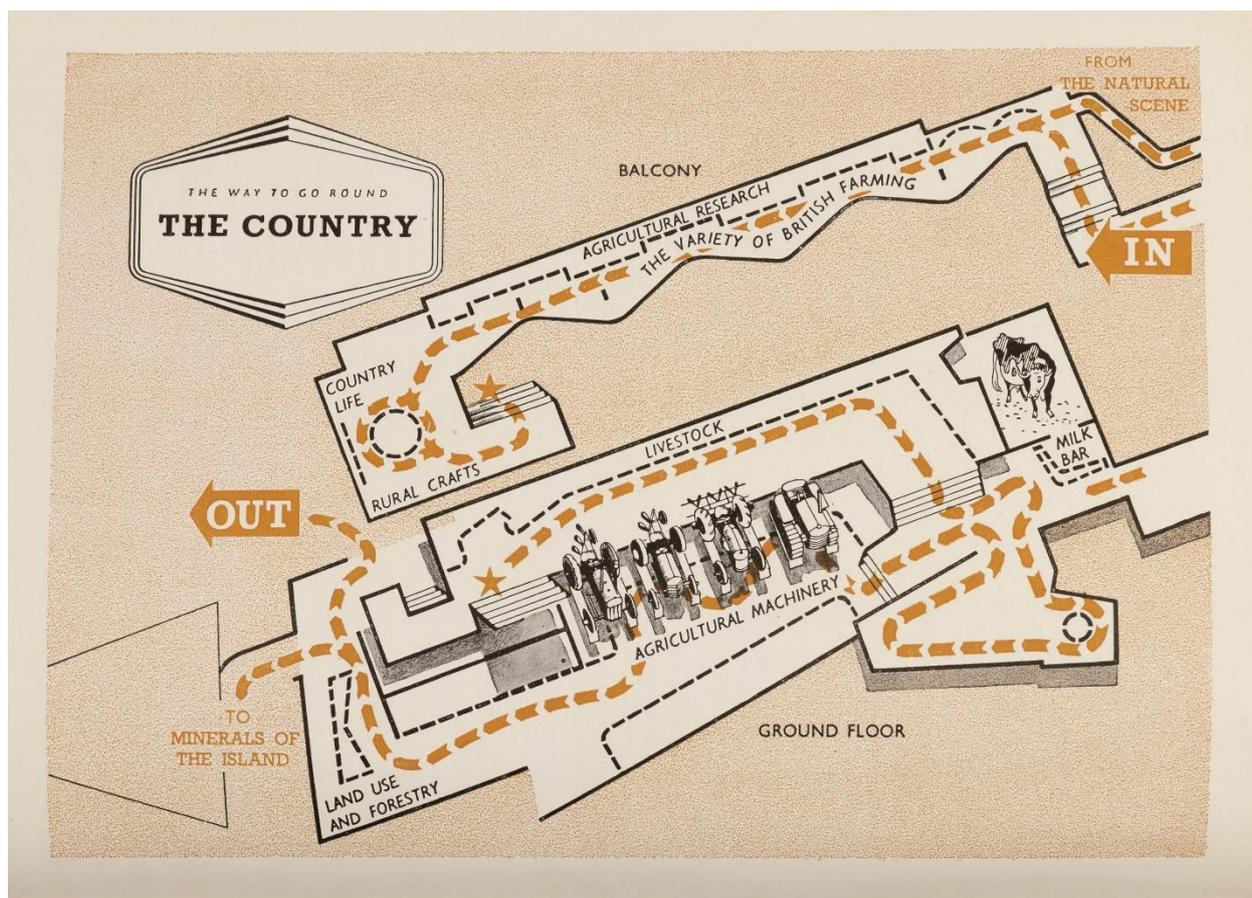
Model of a seventeenth-century Hertfordshire plough, from a set made for the Festival of Britain (MERL 52/68).

Preparation of soil for sowing is a primary agricultural activity and, historically, ploughs represented a substantial item of farm investment. The MERL holds dozens of examples of ploughs but also has an extensive and complementary selection of scale models of ploughs, which were produced for a range of different purposes. Some are playthings, others teaching aides, and others still are demonstration objects designed to promote the wares of particular agricultural engineering firms and plough makers. The series of models at the heart of this response were something altogether different.

Together they constitute the remaining examples from a group of model ploughs first exhibited at the Festival of Britain in 1951. The example shown above—a seventeenth-century Hertfordshire plough—is just one of this wider set. The Festival was organised to honour Britain's past and to

celebrate its future in the worlds of arts, science, technology, and industry. It had several main sites including a number of locations in London, a large exhibition in Glasgow, and another site in Belfast, as well as numerous smaller venues and attractions around the UK.

This set of models—the Hertfordshire example included—was shown in London on the South Bank Exhibition site, as part of the wider displays of the Country Pavilion. The overall Festival themes were ‘Land’ and ‘People’, and the Country Pavilion (on the upstream side of the site) told the story of British wildlife, farming in varied landscapes, rural crafts, and agricultural research.



Plan from Exhibition Guide showing the Country Pavilion at the South Bank site (MERL Library 1770-COX).

The seventeenth-century Hertfordshire model plough was on display along with models of a caschrom, breast plough, medieval plough, eighteenth-century Hertfordshire plough, Rotherham plough, Kent plough, and Ley plough. This set, together helping to communicate and visualise historical ploughing techniques, were shown in the Pavilion where they sat alongside examples of modern tractor technology. In the aftermath of the Festival, the newly formed Museum of English Rural Life acquired a number of items from the Festival including these models. The Kent plough and Ley plough were later withdrawn from The MERL collection, and the whereabouts of the eighteenth-century plough are not currently known, but the other five models still survive intact.

There were many objects, sculptures, and artworks created especially for the Festival of Britain displays and to enhance the Festival grounds. The event was open from May to September 1951, and once it ended the site was dismantled and many of the exhibits and artworks were dispersed to museums, art galleries, schools, returned to the artists, or disposed of in other ways. In 1952, The MERL took receipt of a number of items from the Country Pavilion including straw craft hand tools (including a basket-making tool and some thatching objects), examples of decorative straw craft, a series of largescale textile wall-hangings, further artworks, and the set of plough models.

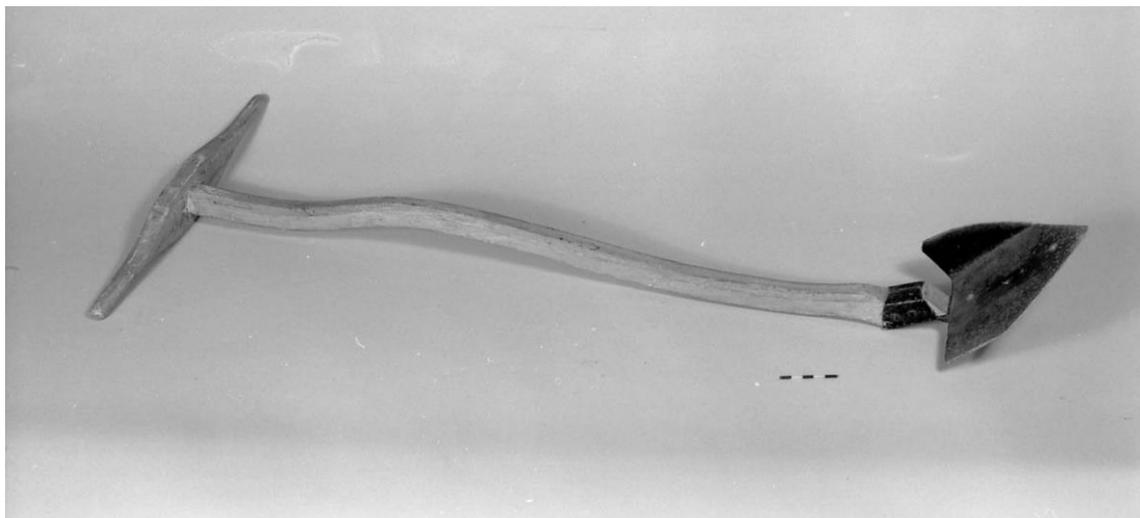


Model caschrom (a hand-operated ploughing tool) from a set made for the Festival of Britain (MERL 52/65)

Honorary Fellow of The MERL and agricultural history expert Jonathan Brown has suggested that the Rotherham plough may be considered the pinnacle of plough design before industrialisation. He notes that the refined swing plough, with tapered share, coulter, and mouldboard reduced draw weight and therefore created a more efficient plough than earlier versions. While we are not certain as how they were interpreted in the Pavilion, the progression of form may therefore have been highlighted as the set included hand tools and draught equipment from different time periods.

Of the model tillage tools depicted, two were examples of hand tools. The caschrom (or foot plough) was a type of device used in areas that ploughs were unable to reach. Its name was derived from the Gaelic for ‘crooked foot’. Like its model counterpart, it too was wooden, and was especially for use in rocky soils where ploughs could not go, or perhaps by people who could not afford a plough. Such

tools were used mainly in the Scottish Highlands, but similar tools were also found in Ireland and Norway.



An old record photograph of a model breast plough from a set made for the Festival of Britain (MERL 52/66)

The other hand tool depicted in the set was a breast plough, an early type of manual plough or turf-lifting device, that sliced off and removed the top layer of soil. Like the other full-size breast ploughs that it would come to sit alongside in the wider collections of the Museum, the model featured a T-shaped horizontal bar at the handle end. This pushed against the worker's chest or thighs and, at the opposite end, a triangular blade with one side bent up to a vertical position provided a cutting edge. These ploughs were in common use until the early-twentieth century for paring turf, levelling ground, and clearing land of stubble.



Model medieval plough (shown on object mount), from a set made for the Festival of Britain (MERL 52/67).

The Festival of Britain model that exhibited the earliest form of ploughing was the medieval plough. The medieval period covers a vast period of time from the fifth century to the late-fifteenth century, but the most significant technological advancement in ploughing during this period was the addition

of a mouldboard, which represented a major improvement on the more ancient ard. This example had painted wooden sections depicting the metal share, metal coulter, as well as an approximation of the large flat wooden mouldboard common during this period. These cumbersome types of plough turned the soil and buried the weeds and were drawn by domesticated animals such as oxen.



Model of a seventeenth-century Hertfordshire plough, shown from the non-mouldboard side (MERL 52/68).

Plough design continued to develop subtle adaptations and improvements to tailor for specific crops and field conditions. The Festival of Britain models show this through inclusion of a seventeenth century Hertfordshire plough (as shown here and above). Like the model medieval plough, this model also featured wooden depictions of the metal share, metal coulter, as well as a flat wooden mouldboard, and two wooden leading wheels.

In the sequence this was followed by a model of an eighteenth-century Hertfordshire plough (MERL 52/69 – *whereabouts unknown*). Even though the location of this plough is not known, we know what it looked like. Ploughs of this type and period featured a straight wooden beam, wooden mouldboard, iron coulter, and leading wheels. The furrow wheel was larger than the land wheel, allowing the tool to compensate for ploughed land. The model of the Kent plough (since removed from the collection) would likely have been of the type designed to work much heavier soils, almost certainly featuring two larger wheels, like the eighteenth-century Hertfordshire, but with two larger wheels of both the same size.

It seems likely that the final models in the series would have been that of the Rotherham plough and then the Ley plough (the latter was also removed from the collection). Joseph Foljambe took out a patent in 1730 for a new plough design. His Rotherham swing plough (named after its place of production) was more refined and efficient, taking less power and effort for the horse to pull it through the field. These factory-produced wooden machines were the starting point for mass-produced metal ploughs, drawn by horses. The Ley plough was probably intended to depict the latter, mass-produced metal horse plough, of a type designed for re-cultivating meadowland that had

been left to pasture. These latter designs led ultimately to the culmination of plough design in the tractor-drawn, multiple-furrow ploughs of today. Today, of course, there is much debate about the mixed benefits of ploughing and there is a move towards minimal tillage systems.



Model of a Rotherham plough, the last in the series of Festival of Britain model ploughs (MERL 52/70).

Within the Country Pavilion the models were displayed atop a pole, as were the tractors, and other machinery. The models revealed how historical methods of cultivation displayed a response to the variety of British landscapes, whilst the tractors displayed how technology and science offered ongoing and future improvements to agriculture and farming. Soon after acquiring the models from the Festival of Britain, they were used by the Museum as markers and exhibits at the 1952 Royal Agricultural Show, held at Newton Abbott. The model ploughs were positioned on tall posts in front of the Museum tent, echoing the original style of their display.



Model ploughs from the Festival of Britain displayed on posts at the front of The MERL's trade stand at the Royal Agricultural Show, Newton Abbott, 1952 (MERL D MERL D1/62).

Two of the original Festival models are currently displayed atop poles in one of the main galleries of The MERL. Why don't you see if you can spot them?

Further Information:

For information about a selection of the surviving model ploughs see – [MERL 52/65-68](#)

For more about the Collecting Rural England gallery see – [Collecting Rural England](#)

For more about ‘no till’ approaches to carbon sequestration – [Soil Association, To Plough or Not to Plough](#)

For information about interpreting ploughs see – [Rural Museums Network, The Power of the Plough](#)

For more about the 1952 Royal Agricultural Show at Newton Abbot see – <https://merl.reading.ac.uk/news-and-views/2020/05/country-shows/>

A note on the unlocated plough and the two deaccessioned ploughs: Two of the wider set of eight plough models were formally withdrawn from the collection. It seems likely that these two items no longer exist. One model plough from the original set cannot currently be located but the Museum holds no record of it having been disposed of or withdrawn. We know that at least one of the surviving examples that can be located was sent on loan to the Science Museum at some point in the past. It is possible that, like this example, it may have been loaned to another institution or perhaps was lost or damaged and disposed of at some point during the intervening seven decades.

Further Sources (online and offline):

Brown, J. *Farm Machinery 1750-1945* (London: B.T. Batsford, 1989)

National Museums of Scotland, *The Story of the Plough* – <https://www.nms.ac.uk/explore-our-collections/stories/science-and-technology/ploughs/>

Different images of the Country Pavilion, all available online:

- <https://historicengland.org.uk/images-books/photos/item/OP35894>
- https://www.ribapix.com/country-pavilion-festival-of-britain-south-bank-london_riba42543
- <https://www.vads.ac.uk/digital/collection/DCA/id/7599/>