George Garrard's Livestock Models By JULIET CLUTTON-BROCK

A series of plaster models of domestic pigs, cattle, and sheep that were made by George Garrard between about 1790 and 1810 has been held in the British Museum (Natural History) since the beginning of this century. In view of the increasing concern for the conservation of rare breeds of livestock it is perhaps an opportune time to publish a description of these models, for they portray the favoured breeds at a crucial period in the history of livestock improvement. Many of the breeds which were the most commercially successful in 1800 (when oxen were still used for ploughing, and the production of tallow was a major industry) are at the present day either extinct or changed out of all recognition, although a few of the old breeds that have survived unchanged are now playing a new economic role in "farm parks" where they are exhibited as relics of a past agricultural age.

EORGE GARRARD (1760–1826) was a painter who turned his attention to the making of casts and models of many subjects, but mainly of domestic animals. In this project he was sponsored by the fifth Duke of Bedford, who was the first president of the Smithfield Club (founded in 1798), and by the third Earl of Egremont, as well as by other members of the Board of Agriculture. Garrard called his house in Hanover Square, London, "The Agricultural Museum," and from there he sold his models.

In 1798 Garrard published a statement in the *Annals of Agriculture* to advertise his models; parts of this statement are quoted as follows:

Mr Garrard is now preparing the models from the best specimens that can be procured, under the inspection of those noblemen (the Duke of Bedford and the Earl of Egremont); and he proposes to publish a set of models, to consist of a bull, a cow, and an ox, of the Devonshire, Herefordshire, and Holdernesse cattle, upon a scale from nature, of two inches and a quarter to a foot. The price to subscribers two guineas each model, plain, and three guineas coloured after nature. Some observations will be published with each number, descriptive of the cattle, and the soil where they are bred in the highest perfection, with other interesting particulars, under the inspection of a nobleman of the first information, in matters relating to agriculture."¹

The models were to be ready for delivery on I July 1799. Garrard produced many more models, however, than those mentioned above, and between this date and 31 May 1810 (the date incised on several of the models), at least twenty-one breeds were represented (table 1). In 1800 Garrard published two volumes of coloured engravings of the cattle with an accompanying text which gives the history and precise measurements of the individual animals that he used (see table 1 for a list of

¹G. Garrard, 'Proposals for Publishing a Set of Models of the Improved Breeds of British Cattle', Annals of Agriculture. XXI, 1798, pp. 166-7.

the breeds).¹ It is unfortunate that Garrard did not describe the pigs and sheep which he modelled in the same way as he did the cattle.

Although it is 173 years since Garrard wrote the introduction to his work on cattle his words still seem apt and are quoted, in part, below:

The Board of Agriculture having patronized several attempts at delineating livestock of different countries by Painting and Engraving, and it having occurred to the Author of this work that a picture (although it gives a most lively idea of colour, and general effect) rather exhibits a section or contour of the Animal than its real image, as ideas of thickness cannot thus be adequately conveyed with those of length and height, he was therefore induced to make proposals for executing Models of the Improved Breeds of British Cattle, in which the exact proportion, in every point, should be accurately preserved.

These works are not intended merely as matters of curiosity, they exhibit, at once, the ideas of the best Judges of the times, respecting the most improved shape in the different kinds of Livestock—ideas which have seldom been obtained without great expense and the practice of many years. It is presumed that, by applying to works of this kind, the difficulty of acquiring a just knowledge upon the subject may be considerably removed; and also that distant countries where they may be sent, will be enabled to form very perfect ideas of the high state of cultivation in which the domestic animals are produced at this day in Great Britain; and should further progress be made, these models will show what has already been done, and may be a sort of standard whereby to measure the improvements of future times.

Garrard lived at a time when the breeds of livestock in Britain were undergoing great changes as a result of the intensive experiments in improvement that were carried out throughout the country. There were two different approaches to improvement; firstly Bakewell's system of inbreeding of chosen stock, and secondly that of outbreeding, which is best described by again quoting Garrard: "It is considered, that there are no English cattle, sheep, horses, or swine, so early ripe and valuable, (or, perhaps so beautiful) as when mixed with those of France, Spain, Arabia, and the Indies."

The models of pigs, cattle, and sheep in the British Museum (Natural History) exemplify to perfection these two approaches to improvement and the stages that they had reached at the beginning of the nineteenth century. Unfortunately, however, the models have been somewhat damaged over the course of the years, and their original labels are often missing. It has been possible to identify the pigs and cattle, but the sheep proved to be more difficult, and only some of these models could be ascribed with certainty to their breeds. All the models appear to have been made to the same scale of $2\frac{1}{4}$ inches to one foot (slightly larger than one-sixth natural size). The models were on exhibition in the old Mammal Galleries at the

¹G. Garrard, A Description of the Different Varieties of Oxen Common in the British Isles: Embellished with Engravings, 2 vols., 1800, no page nos.

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beginning of this century together with the skeletons and mounted skins of many domestic animals. This exhibit was described in a guide by Lydekker.¹ All but four of the models were presented to the Museum in 1912 by the late Earl of Ancaster. The present Earl has written to tell me that they were originally obtained by his great-great grandfather, Peter Robert, Twenty-first Lord Willoughby of Eresby, who was much interested in the development of scientific farming. The remaining four models of cattle (of which there are unpainted duplicates from the Ancaster collection) are painted replicas made by the Museum in 1903 from originals in the possession of the Duke of Bedford.

The models are described here with comments and a short history of the breeds that they represent.

SWINE

Garrard's group of three pigs sums up in a most remarkably succinct and precise way the history of the domestic pig in Britain (Plate 1).

The Wild Boar

Although extinct in Britain by the end of the seventeenth century the wild boar was probably well known to Garrard, as it was frequently introduced to parks. For example, Harting quotes how "Sir Francis Darwin received a present of a German boar, and two Alpine boars and two sows, on his estate in Derbyshire in 1826."2 There can be little doubt that the European wild boar, Sus scofa, was the ancestor of the old English domestic pigs, and indeed it is possible that wild boar were crossed with domestic stock until late in historic times. The custom of putting swine out to pannage in the forests may have made interbreeding a common occurrence until the post-medieval period.

The Old English Boar

This is perhaps the most interesting of all Garrards' models, for this breed of pig (figured by Youatt³) gradually became extinct after the introduction of Asiatic breeds at the end of the eighteenth century. Youatt describes these swine as follows: "Where individuals of the pure old breed are met with, they will be found long in limb, narrow in the back, which is somewhat curved, low in the shoulders, and large in bone; in a word, uniting all those characteristics which are deemed most objectionable, and totally devoid of any approach to symmetry."4 These large coarse-bodied, lop-eared pigs were widespread throughout Britain, and may be included under the general name of the unimproved Berkshire.5

The Half-bred Siamese and English Sow

This model of a small, barrel-shaped, smooth-skinned, pink pig exemplifies all

¹ A Guide to the Domesticated Animals (other than horses) of the British Museum (Natural History). Trustees of the British Museum, 1912, 56 pp. ² J. E. Harting, British Animals Extinct within Historic Times, 1880, pp. 77–114, 97.

³ W. Youatt, The Pig. 1847, figure p. 54. ⁴ Ibid. ⁵ R. Trow-Smith, A History of British Livestock Husbandry 1700-1900, 1959, pp. 154–8.

characters that the late eighteenth-century breeders were trying to produce. Chinese, Siamese, and Neapolitan pigs were probably brought into Britain continuously from 1770 onwards.¹ They were small, fat, hairless pigs with the distinctive "dish-face" that is so characteristic of all present-day breeds. The crossbreeding produced pigs which matured much faster, were small-boned, and much fatter than the old British breeds. By the middle of the nineteenth century the influence of the Asiatic crossings was to be seen in every British pig.²

Garrard's model is a most fascinating relic for it shows the precise form of a first generation cross between an Old British sow (which was soon to become extinct) and a Siamese boar.

CATTLE

By the beginning of the nineteenth century major improvements in cattle-breeding had been accomplished, and the shorthorn breeds were beginning to supplant the longhorns despite Bakewell's fame. Cattle breeds were, however, still multipurpose, and the production of fat for tallow was of prime importance. In many areas oxen were used in preference to horses for ploughing, and cattle were not sent to market for slaughter until they were fully mature at five or six years of age. Every part of the carcase was of value, and the thickness and condition of the hide were crucial for sale to the leather industry.

Bakewell and his followers aimed primarily for early maturity; a barrel-shaped body, and a reduction in the amount of bone in the carcase; bone being the only part of the animal that was not of great value. By the time that Garrard came to write his description of cattle Bakewell had been succeeded by his nephew Mr Honeyborn, and the Collings brothers were achieving fame as the chief breeders and improvers of the Holderness shorthorn. The lives of these people are too well known to bear repetition here but for further information about them the reader may refer, amongst others, to the works of Housman,³ Trow-Smith,⁴ and Youatt.⁵

Garrard divided the breeds of cattle into four groups, the polled breeds (of which the Museum holds no models), the longhorns, the shorthorns, and the middlehorned breeds, which are here described first.

Devonshire Cattle

Garrard refers only to the North Devon cattle. These were widespread in the southwest of England, being supplanted by the South Devon breed towards the borders of Cornwall. The South Devons were a less-well-thought-of breed which in the words of Youatt "were equally profitable for the grazier, the breeder, and the butcher; but their flesh was not so delicate as that of the North Devons. They do for the consumption of the Navy, but they will not suit the fastidious appetites of the inhabitants of Bath, and of the metropolis."6

⁸ Youatt, op. cit., p. 22.

¹ Ibid., p. 154. ² Youatt, op. cit., pp. 52-65.

⁸ W. Housman, 'Robert Bakewell', J. Roy. Agric. Soc. Eng. v, 1894, pp. 1–31. ⁴ Trow-Smith, op. cit., pp. 45–70. ⁵ W. Youatt, Cattle, 1860, pp. 226–38.

In Garrard's view the North Devons were an almost perfect breed. The height of the oxen varied from 11 to 12 hands, cows from 11 to 12 hands, and the bulls from 12 to 13 hands (one hand = 4 inches = 10.16 cm). The large size of the oxen was particularly commended. Most of the ploughing in Devon and Somerset was done by oxen, and Garrard states that the oxen could be wintered in open sheds, and could be driven to London for slaughter without losing any weight.

There is a very fine group of Devon cattle in the collection of models (Plate 2), comprising an ox, a bull, a cow, and a calf. Garrard gives detailed measurements of the adult animals, and states that the cow and the bull were bred by Mr White Parsons and were in the possession of the Earl of Egremont. The bull obtained a prize at Lewes in 1797. The ox belonged to the Duke of Bedford, and was "in that yoke of oxen, mentioned in the Annals of Agriculture to have been purchased of Mr Pippins of Dulverton, to carry on the experiments at Woburn."

As well as this group of Devon cattle there is a model of "A Beautiful Fat Devon Heifer" which was owned by the Duke of Bedford, and which obtained a prize at Smithfield in 1802. The dimensions of this heifer were: height of hind quarters, 4ft sins; round chest 7ft zins; pole to tail, 6ft 8ins. The weight was: carcase 106 stone I lb; fat 19 stone 4 lb; total weight 125 stones 5 lb. (Note: 14 lb = I stone = 6.30 kg.)

A Fat Herefordshire Ox

There are two models of this ox, one unpainted from the Ancaster collection, and one painted but unfortunately with the head missing from the Duke of Bedford (Plate 3). The ox was bred by Mr Tully of Hunterton, near Hereford, and fatted by Mr Westcar of Creslow in the Vale of Aylesbury. It had a dead weight of 1,928 lb, of which 288 lb was fat. The ox obtained a prize from the Smithfield Society at Christmas, 1799, and it was six years old when it was slaughtered. It was sold for $f_{,100}$, the tongue for 1 guinea, and the hide for 3 guineas.

Herefordshire oxen were much used for ploughing. They were larger cattle than the North Devons, and all Garrard's engravings of the breed show the characteristic white faces with brown bodies. Youatt, however, states that the old Herefords were brown or red-brown with not a spot of white about them. He asserts that it was only in the fifty or sixty years before writing his book (1860) that it became fashionable to breed for the white face.¹

Sussex Cattle

This breed is well represented by the models. There is a bull, an ox, and a cow on one base, which are in good condition (Plate 4), and also a model of the fat heifer that was described by Garrard as "the handsomest Fat Beast that had ever trod the pavement of Smithfield Market." This heifer was bred by Mr Vittle of East Farley in Kent and sold to a Mr Kingsnorth who exhibited it at Smithfield in 1800. The dimensions of these cattle are given in a table by Garrard. The bull, ox, and cow

¹ Youatt, op. cit., p. 31.

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were from the Earl of Egremont's stock at Petworth in Sussex. The Sussex breed was said by both Garrard and Youatt to be intermediate in colour, conformation, and fattening potential between the Devon and the Herefords.¹ In Garrard's time Sussex cattle were much used for plough oxen; the history of the breed during the nineteenth century has been written by Boxall.²

Highland Cattle

At the present day the Highland cattle would certainly be classed in the group of long-horned cattle, and Trow-Smith states that they were long-horned in the eighteenth century.³ Neither Garrard nor Youatt, however, placed them in this group. There are models of a bull, ox, cow, and calf of the Highland breed in the Museum collection but they bear only a slight resemblance to the Highland cattle of today; the models have been painted the correct reddish-tan colour but the horns are quite short, in fact shorter than they are in the models of the Sussex and Devon cattle (Plate 5). In Youatt's day the Highland cattle were brown, black, brindled, red, or light dun in colour.

Longhorn Cattle

By 1800 the Longhorn cattle (or New Leicester breed) were over the peak of their short-lived success as an improved breed in England. The unimproved longhorns were large rangy cattle that were to be found in the North of England in the eighteenth century, and particularly in the Craven district of Yorkshire. The first person to attempt improvement was a blacksmith named Welby who had a herd from the stock of Sir Thomas Gresley, who lived near Burton-on-Trent. Welby was succeeded by Mr Webster of Canley, near Coventry (Warwickshire), who had cattle from the same stock and bought in more animals from Lancashire and Westmoreland for interbreeding. Then in about 1760 Robert Bakewell, who was already gaining a reputation for sheep breeding, turned his attention to cattle. He purchased a bull from Westmorland and two heifers from Mr Webster. From these animals Bakewell's entire stock of longhorns was bred.

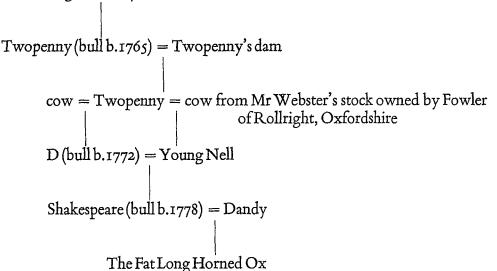
Bakewell lived at a time when there was a rapidly increasing demand for meat although the population of Britain still did not exceed ten million. The old longhorns were not good plough oxen, and Bakewell exploited this fact. Before his time fat calves were slaughtered for veal, and lean well-grown animals were kept for work. Bakewell reversed the process and retained animals likely to breed him stock for the butcher rather than the plough. His improvements were achieved by close inbreeding, selection of favoured animals, and ruthless culling of unwanted stock. This is exemplified by the pedigree given below of the Fat Long Horned Ox that was modelled and figured by Garrard. As with the Herefordshire ox, the Museum holds two models of this animal (Plate 6), and there are also models of a

¹ Ibid., pp. 40–6. ² J. P. Boxall, 'The Sussex Breed of Cattle in the Nineteenth Century', *Ag. Hist. Rev.*, xx, 1, 1972, pp. 19–23. ³ Trow-Smith, *op. cit.*, p. 112.

Longhorn ox and a cow in the collection. Detailed measurements of these cattle are given by Garrard. The fat ox, which was obviously a very fine animal with long wide-sweeping horns, was bred at Bakewell's farm Dishley Grange by his successor Mr Honeyborn. The ox was shown at Smithfield in 1799 when it was five years old.

Pedigree of the Fat Long Horned Ox¹ Westmorland bull = Canley cow from Webster (Bakewell's original stock)

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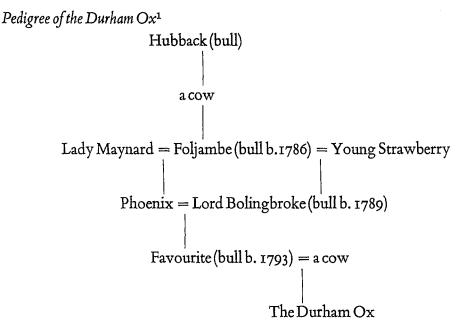


Holderness Shorthorn Cattle

Two models of a shorthorn ox are in the Museum Collection, one from the Duke of Bedford and one from the Earl of Ancaster; the former has been painted and the latter is unpainted. They agree very well with Garrard's engraving of the "Wonderful Ox" which was on exhibition in London in 1802. Garrard describes the ox as "belonging to the Tees-Water breed of Mr Collins stock, and the property of Mr John Day of Harmston, near Lincoln. It was no less distinguished for its uncommon beauty than for its weight (200 stone), being an example of perfection on every way" (Plate 7).

The history of this ox is known in detail, for an examination of the literature shows that the "Mr Collins", mentioned by Garrard as having been for many years the most distinguished breeder of Holderness cattle, is Charles Colling who was, together with his brother Robert Colling, the "Bakewell" of the Shorthorn breed. The Collings's Shorthorns are described at length by Youatt who calls the "Wonderful Ox" the "Durham Ox."² It was bred from a common cow that was put to Colling's famous bull, "Favourite," whose pedigree is well known and is given below:

¹ Adapted from J. Wilson, The Evolution of British Cattle, 1909, p. 119. ² Youatt, Cattle, p. 229.



At five years old, in February 1801, the Durham Ox was sold by Mr Colling to Mr Bulmer of Harmby, near Bedale (Yorkshire) for public exhibition for £140. At this time the live weight of the ox was 216 stone. Mr Bulmer obtained a carriage for his conveyance and travelled with him for five weeks, and then sold the ox and the carriage at Rotherham to Mr John Day on 14 May 1801 for £250.

Youatt writes that on 14 May, Day could have sold the ox for £525, on 13 June for £1,000, and on 8 July for £2,000. He resisted these offers, however, and travelled with the ox for nearly six years, until at Oxford on 19 February 1807 the animal dislocated a hip bone. On 15 April, when the ox was eleven years old, it was slaughtered, and after eight weeks of illness the carcase still had the following weights:

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Four quarters	 165 stone 12 lb
Tallow	 11 stone 2 lb
Hide	 10 stone 2 lb

Shorthorn cattle were imported from Holland at the end of the seventeenth century. They were at first given the name of "Holderness' after the name of the district in Yorkshire where they became established. Later (during Garrard's time) they were known as the "Teeswater" cattle, for this was the district in which the Collings brothers lived. The history of the Shorthorn breed in Britain is given by Trow-Smith, who also discusses why the improved Shorthorns were so successful whilst the Bakewell Longhorns failed to sustain their popularity in the nineteenth century.²

¹ Wilson, op. cit., p. 123. ² Trow-Smith, op. cit., p. 233-41.

Cattle from the East Indies

Models of a "Guzarat Bull," a "Bengall Bull," and a "Ceylon Bull" are in the collection. Measurements of the cattle that were modelled are given in Garrard's text, and there are engravings of the "Guzarat Bull," the "Ceylon Bull," and a "Bengal Cow with Calf." Garrard states that the Guzarat bull was the largest, and stood 15 hands at the top of the back with the hump projecting 6 to 8 inches higher. The Bengal bull was not so large, and the Ceylon bull was a dwarf animal only about the size of a goat (Plate 8).

There were several herds of exotic cattle and Indian buffalo that were bred in the British Isles during the eighteenth and nineteenth centuries. The models of the Guzarat and the Ceylon bulls were made from animals in the stock at Woburn Abbey; the Bengal bull was in the possession of Lord Salisbury. Exotic cattle were kept by landowners who could afford them, partly as fashionable curiosities, but also in the belief that by crossing them with native cattle improvements could be made, as had been achieved so dramatically with swine.

The crosses of British cattle with animals imported from India do not appear to have been generally favoured, however, although Garrard does quote from a letter written to him from Mr White Parsons, the celebrated breeder of Devon cattle, as follows: "I shall have the pleasure of shewing you my new Devons, which, as a painter, I know you will say have a finer claim to positive beauty than any you have yet seen—they are calves got by an Indian bull, given me by His Grace the Duke of Bedford, upon two year old Devon heifers, and are as fat as quails at a month old, and worth three guineas a-piece to kill, which proves the blending system to be right, as it is in favour of quick growth, small bone, and finest quality; and there can be no doubt but that their hides, flesh, milk and tallow will be of a superior quality and value."

The above quotation should perhaps serve as a word of warning to those who attempt to make comparative studies, such as those of the blood groups of different breeds of livestock.

Sheep

Garrard's sheep have proved more difficult to identify than the cattle, and the breeds of only four out of the nine models have been determined with certainty. Garrard apparently left no engravings or descriptions of the sheep which he modelled, as he did with the cattle.

New Leicester Sheep

Faint writing across the back of a model of a very fat sheep says, "Fat Leicestershire Ewe, G. Garrard, May 31st, 1810". The new Leicester sheep was a product of Bakewell's policies of improvement. Better known perhaps, than the Leicester Longhorn, the New Leicester sheep was the most successful project that Bakewell undertook. As with his cattle, Bakewell reduced the bone and increased the fat proportions of the sheep carcase. Size and weight of fleece were at first sacrificed for

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early maturity and the highly-prized barrel shape of the body. In 1783 the Dishley Society was founded, and the practice of letting out rams to farmers rather than selling them became financially very profitable. The rams were let for very large sums of money; in 1789 Bakewell made 1,200 guineas from three rams, and 2,000 guineas by seven others. Youatt asserted that by 1830 there was hardly a flock of long-woolled sheep in the British Isles that was not in some degree descended from Bakewell's New Leicesters.¹

The origins of the New Leicester sheep are not clear but it is probable that Bakewell used the local stock of long-woolled Lincoln and Leicester sheep which he inbred until he achieved the results he required. The fat ewe modelled by Garrard is probably typical of the highly bred Leicester of 1800. Housman describes a three-year-old wether belonging to a Mr James Bolton which when killed in 1787 had $7\frac{1}{8}$ inches of solid fat over the ribs.²

Southdown Sheep

² Construction in the second sec

Models of a hornless, white ram and ewe on one base can be identified as Southdown because another identical ewe has "Southdown" written very faintly across its back. These models must represent the improved Southdown as it looked at the beginning of the nineteenth century. The slight painting of the eye and hooves of the models suggests that the head was not intended to be black, and the breed had already lost the dark head and legs of the old Southdowns. This dark coloration and the horns were retained in small flocks of a related breed that survived in Norfolk. This was the Norfolk Horn which, when crossed on to the improved Southdown at a later date, produced the successful Suffolk breed; the last purebred Norfolk Horn ram died on 5 October 1973.

Several breeders were responsible for the improvement of the Southdown, but the most notable was John Ellman (1753–1832) who carried a breeding flock of 500 sheep on his farm at Glynde in Sussex. Unfortunately it is not known which individual animals were chosen by Garrard for his models but it is likely that for the Southdown breed it would have been sheep from the flocks belonging to the Duke of Bedford or Mr John Ellman.

Unidentified Sheep

There are five other models of sheep that cannot be certainly ascribed to particular breeds. One is a fine model of a ram, painted white, with long curled horns. An old label suggests that Lydekker believed this to be a Scottish blackface ram, but it is more likely to represent a merino. A merino ram similar to this model is portrayed in Garrard's oil painting "The Woburn Sheep Shearing, 1804."³

Two models on one base could represent shorn and unshorn rams of the New Leicester breed, and another model of a shorn ewe could also be a New Leicester, for it and the shorn ram look like a pair. To ascribe the remaining model of a large

¹ W. Youatt, Sheep, 1837, pp. 312-31. ² Housman, op. cit., p. 15.

³ H. B. Carter, His Majesty's Spanish Flock, 1964, Plate I (frontispiece).

TABLE I

Breed	Described*	Figured*	Model in the B.M.(N.H.)
Swine			
Sus scrofa		<u> </u>	boar
Old English			boar
Half bred Siamese and			
English		·	sow
Cattle			
Devonshire	+	bull, cow, ox, fat heifer	bull, cow, ox, calf, fat heifer (2)
Herefordshire	+	bull, cow, ox, beautiful	
•	•	bull, fat ox	fat ox (2)
Leicester Longhorn	+	bull, cow, ox, fat heifer,	
		fat ox	cow, ox, fat ox (2)
Sussex		bull, cow, ox, fat heifer	bull, cow, ox, fat heifer
Holderness Shorthorn	-+-	bull, cow, ox, fat ox	fat ox (2), bull? ox? cow?
Highland		fat Highland Scotch ox	bull, cow, ox, calf
Scotch		fat Galloway heifer	
Irish		true native Irish or	
		Kerry cow	
Yorkshire polled		cow	
Suffolk polled		bull, cow, ox	
Shetland		bull	
Norman		bull	
Alderney	+	bull, cow, ox	
Gujarat	+	bull	bull
Bengal Indian	+	cow, calf	bull
Ceylon)	+	bull	bull
Sheep			
New Leicester	+		fat ewe, shorn and unshorn
			rams? shorn ewe?
Southdown			ewe (2), ram
Merino		In a picture called "The	
		Woburn Sheep-Shearing,	
		1804Ӡ	ram

THE LIVESTOCK BREEDS DESCRIBED AND FIGURED BY GARRARD, TOGETHER WITH A LIST OF THE MODELS IN THE BRITISH MUSEUM (NATURAL HISTORY)

* Garrard, op. cit. † Carter, op. cit.

hornless ram to any breed would be mere speculation until more information is known about it.

The series of models that is described here is not complete, for some of the models of cattle have been broken or lost, and some are quite badly damaged. The series is not, however, unique; it is probable that Garrard presented each of his patrons

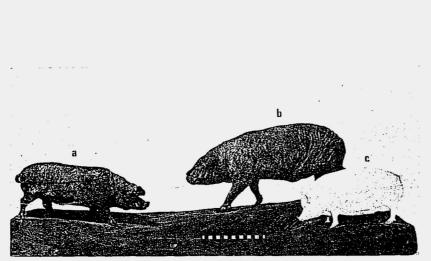


Plate 1: (a)Wild boar. No. 73 1611 (b) Old English boar. No. 73 1609 (c) Half-bred Siamese and English sow. No. 73 1610

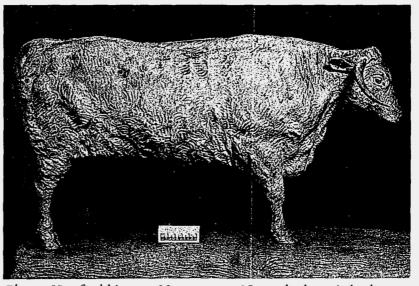


Plate 3: Herefordshire ox. No. 73 1591. Note: the horn is broken at its base and has fallen downwards.

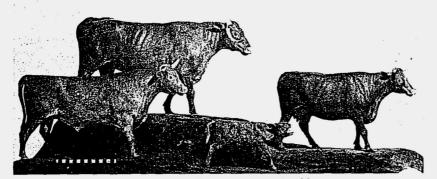


Plate 2: North Devon bull, ox, cow, and calf. No. 73 1597

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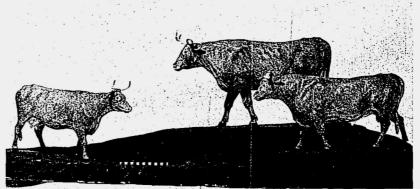
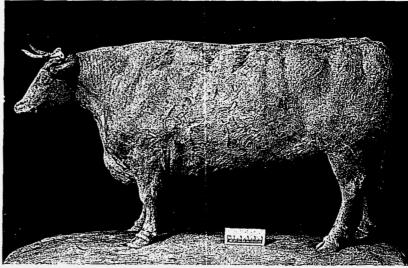
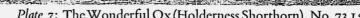
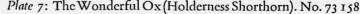


Plate 4: Sussex cow, ox, and bull. No. 73 1596

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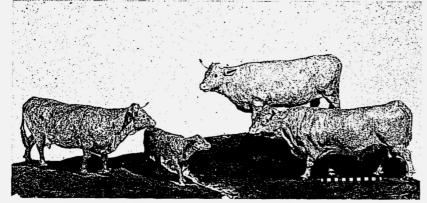


Plate 5: Highland cow, calf, ox, and bull. No. 73 1598

Plate 7: The Wonderful Ox (Holderness Shorthorn). No. 73 1587

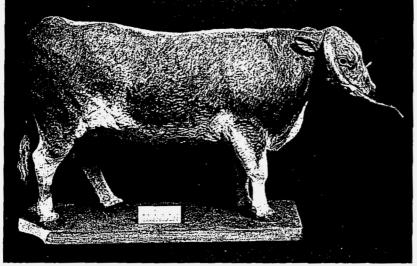


Plate 6: Fat Long-Horned Ox. No. 73 1588

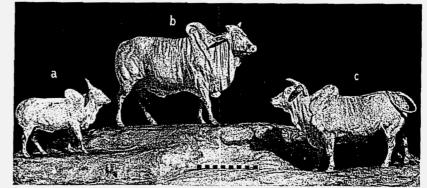


Plate 8: Indian cattle. No. 73 1600 (a) Dwarf bull from Ceylon (b) Gujerat bull (c) Bengal bull

with a set, and he was also successful at selling them. Fortunately some at least of these sets are still in private collections in Britain. There was a loan exhibition of Garrard's works held at the Cecil Higgins Museum, Bedford, in 1961.

Garrard lived at a time when the improvement of farm livestock was the primary aim of landowners throughout Britain. Before Bakewell the success or failure of livestock was ascribed to the goodness of the land and the feeding policies of the graziers. Bakewell and his followers were the first to start at the beginning and to concentrate on the breeding of the stock. In this they were using the (as yet undiscovered) laws of Mendelian inheritance, and were perhaps before their time in their understanding of concepts that a century later were formulated into the theory of evolution. It is lucky indeed that Garrard's models survive to show us these critical stages in livestock improvement in a manner which even the camera could not surpass, had it been invented in 1800.

OBITUARY

Mabel K. Ashby

HE British Agricultural History Society loses a most distinguished member with the death of Miss Mabel K. Ashby on 16 October 1975. After a very full life in education, at the end of which she was Principal of Hillcroft College for Working Women, Miss Ashby turned in retirement to the writing of history, and published in 1961 Joseph Ashby of Tysoe, 1859-1919. It was more than a history of her father, it was a careful study of village life in Tysoe, Warwickshire, that immediately received high praise for its sympathy, its insights into working life, and its poetic prose. It won for Miss Ashby the James Tait Black prize for the best biography of 1961. She then went on to write the history of Bledington in Gloucestershire (The Changing English Village, 1066-1914), in which she lived until her death.

Both Miss Ashby's books describe villages that had one factor in common: they worked out their destinies without a resident lord. Miss Ashby recognized this as a central factor

in shaping their personalities, and she rejoiced in it. "The great house," she wrote, "seems to me to have kept its best things to itself, giving with rare exceptions neither grace nor leadership to villages, but indeed depressing their manhood and culture." Accordingly, she viewed with admiration and pride the competence of the ordinary villager, backbone of the village community; this viewpoint shines through all her writing. Miss Ashby's work was greatly praised and widely read during her life, but it is equally certain that, as historians continued to uncover the deep and pervasive influences of social structure on economic development, they will find deeper layers of meaning in her thoughtful and perceptive studies.

Members of this Society who have attended past conferences will retain an additional memory of a quiet, dignified lady with a searching gaze and few words, but those always well-considered, pithy, and direct.

JOAN THIRSK