



BRONZE PORTRAIT MEDALLION OF ROBERT SPENCE BY SIR GOSCOMBE JOHN, R.A.

Photo. King's College.

XVI.—MODELS OF HADRIAN'S WALL AND ITS COMPONENT WORKS.

*In the Museum of Antiquities of the University of Durham
and of the Society of Antiquaries of Newcastle upon Tyne.*

BY DAVID SMITH.

Among the most important and interesting exhibits in this museum are the scale models of Hadrian's Wall, one of its forts, two milecastles and two turrets and a section of the Vallum; all are the work of Mr. William Bulmer, the senior curator of the Society of Antiquaries of Newcastle upon Tyne.

The idea of a complete model of Hadrian's Wall with examples of its forts, milecastles and turrets was conceived by Mr. Robert Spence, late of Tynemouth (pl. XLV). It was by his generosity that these models were made possible. Mr. Spence has a long family connection with the Society of Antiquaries and with the Roman Wall. His father, Charles James Spence,¹ was a prominent member of the Society from 1866 until his death in 1905. He contributed much by both pen and pencil to its publications and in particular the early editions of Bruce's *Handbook to the Roman Wall* were illustrated by a series of fine copper-plate etchings of views along its course which he had etched specially for that book.

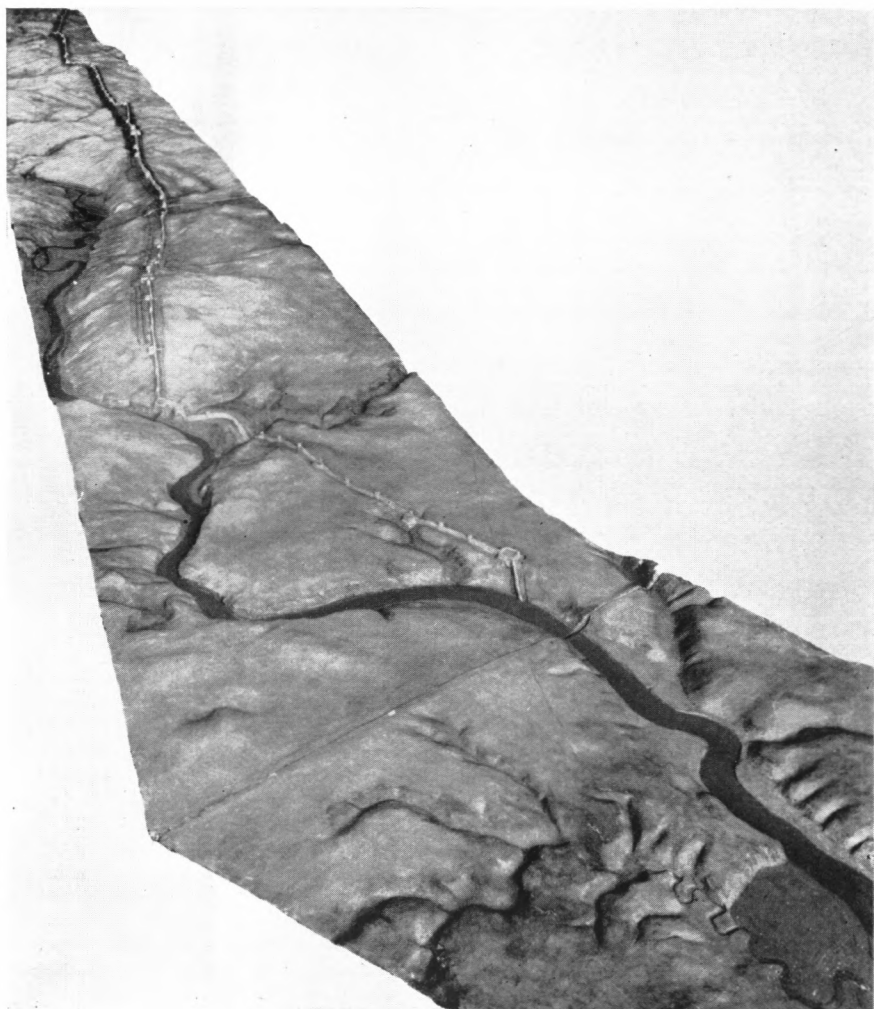
The model of the Wall (pls. XLVI-XLVIII) is based on the Ordnance Survey 1-inch and 6-inch maps, the horizontal scale being six inches to one Statute Mile: to the best of the writer's knowledge there is no other model in existence showing an entire sector of the Roman Imperial Frontier on a comparable scale. In brief, the model represents a strip of

¹ *Arch. Ael.*, 3rd ser., vol. X, pp. 274-75 and plate.

country three miles wide, extending from the mouth of the Tyne to the Solway Estuary, a distance of some 70 miles as the crow flies. In order to bring out the main physical features, however, it has been necessary to adopt a vertical scale of one inch to 200 feet, an exaggeration of 4.4 times the horizontal scale. The relief is modelled on contours at vertical intervals of 50 feet, except in the more level parts where an interval of 25 feet has been used. Coastlines, courses of rivers and the size of lakes, which have sometimes changed since the Roman period, are shown as far as possible as they were then and not as they are to-day. The model is coloured to suggest the appearance of the landscape fifteen hundred years ago, but it was considered inadvisable to try to indicate, even on a model of this scale, the scrub and small trees which then covered much of the middle uplands, or the dense thickets which filled the valleys and cleughs.

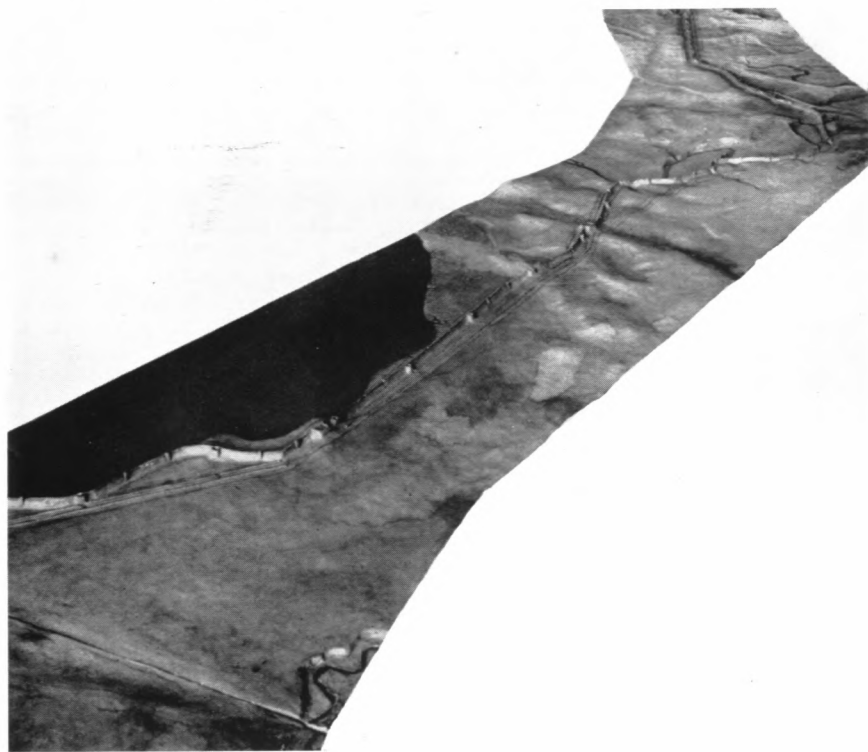
Archæologically, the model shows the Wall in detail, with its forts, milecastles and turrets, the defensive ditch on the north side, the Vallum to the south, and the Stanegate and Roman north-south roads. The entire length, almost 41 feet, is displayed in a single case illuminated by concealed fluorescent lighting, specially constructed in the Museum workshop. It makes an exceptionally dramatic exhibit. Those who already know the Wall will find it a potent aid to appreciation of the tactical and structural problems that faced its builders, while those who do not will hardly find elsewhere an introduction—one might well say an invitation—so instantly attractive and informative.

The fort at Benwell was chosen to illustrate this class of Roman military works, and the model (pl. XLIX) is an attempt to show it as it might have appeared in the third century, when occupied by a cavalry regiment 500 strong, the First *Ala* of Asturians. It is to a scale of one inch to 20 feet and is based on the results of the excavations in 1926 and 1937 and on knowledge of Roman auxiliary forts in general. Headquarters Building, Commandant's House, Granaries, Hospital, Workshops and Wagon-sheds, Barracks and



THE MODEL OF HADRIAN'S WALL, EAST END.

Photo. Philipson Studios.



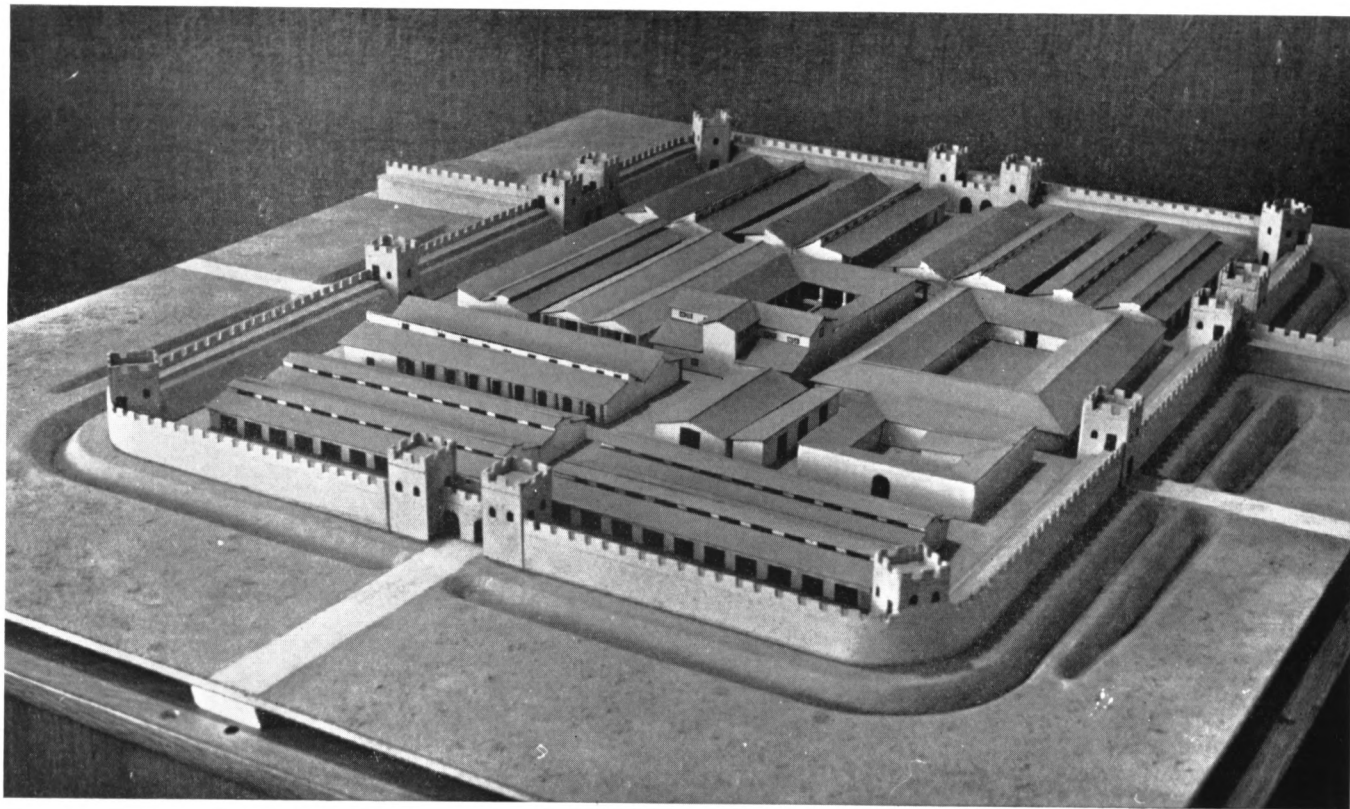
THE MODEL OF HADRIAN'S WALL, WEST END.

Photo. Philipson Studios.



THE MODEL OF HADRIAN'S WALL, LOOKING EAST UP THE IRTHING VALLEY TO BIRDOSWALD.

Photo. Philipson Studios.



Model of the fort of *Ala I Asturum* at Benwell (*Condercum*), south-east view.

Photo. King's College.

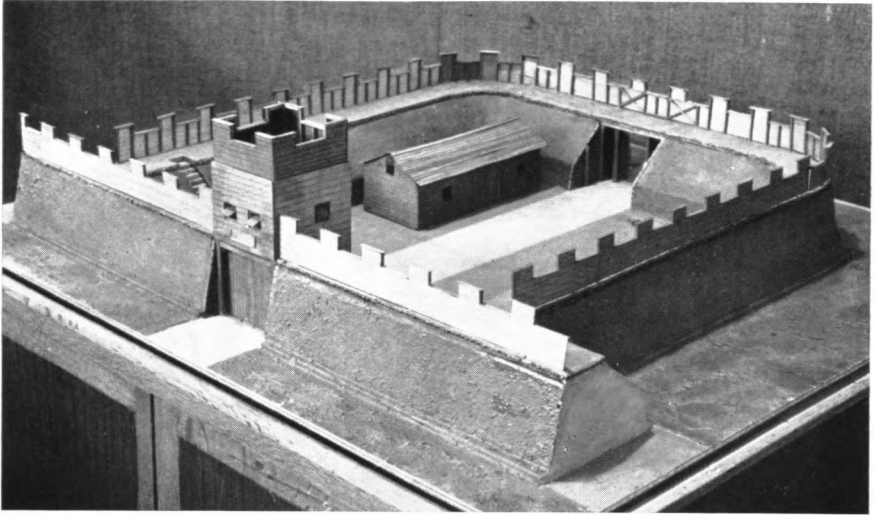


FIG. 1. MODEL OF MILECASTLE 50 TW (HIGH HOUSE).

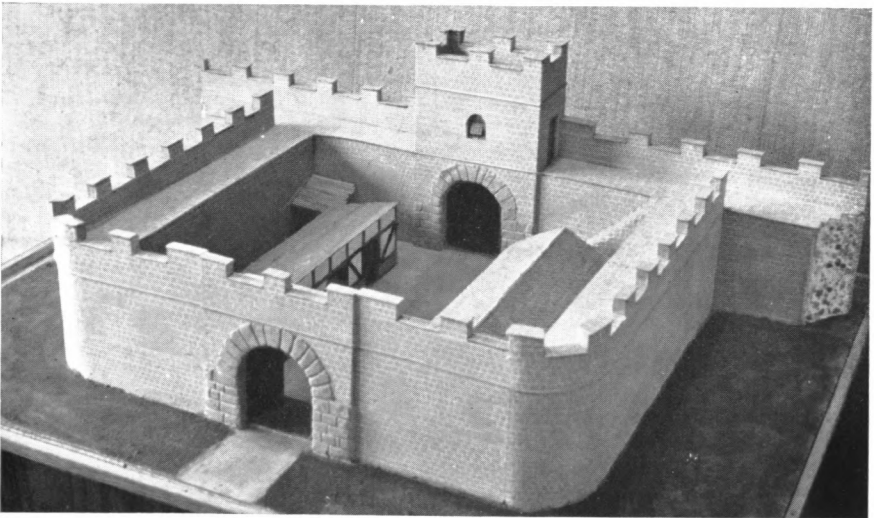


FIG. 2. MODEL OF MILECASTLE 37 (HOUSESTEADS).

Photos. King's College.

Stables: all are carefully represented within the enclosing fortifications.

Models of two milecastles and two turrets are on view, one of each showing the type associated with the Turf Wall. The milecastles (pl. L) are both well known from excavations, No. 37 (Housesteads) and No. 50 TW (High House, on the Turf Wall); they are to a scale of one inch to four feet. The turret models also are based on excavated examples and are reproduced to the same scale, with considerable attention to details of construction and equipment.

Finally, by no means the least effective of these models, though it is of relatively simple construction, is that illustrating the Vallum. It shows a representative section, the scale, one inch to four feet, corresponding to a stretch of 142 feet on the ground.

The value of these models, to student and layman alike, can scarcely be underestimated, and it is hoped some day to describe them in the detail they deserve. Meanwhile, perhaps these notes and photographs may help to bring them to the attention of many who as yet are unaware of their existence.

