

Last summer I made a British Council Scientific Exchange visit to DDR to study sheep husbandry and in particular to gain information on fine-woolled Merino sheep. I also visited archaeozoologists in Berlin (Dr. H.-H. Müller and colleagues) and in Halle, scoured art galleries in Berlin and Leipzig for paintings of past livestock, and visited Erfurt Zoo, which is famous for keeping unimproved breeds of farm animal. Germany has a long tradition of interest in domestic animals. The first agricultural department of any German university was started in Halle in 1863 by Prof. Julius Kuhn (1825-191D) who began research on domestication and the development of different breeds that was to end only with the First World War.

Prof. Kuhn kept examples of the wild ancestors of livestock in yards at the University within the city and was the first to research the domestication process by cross-breeding, for example, domestic horses and pigs with wild forms of those animals. The results of his research were preserved as the skins and skeletons of the many experimental animals, many of which were mounted to give stuffed examples of how they appeared in life. We are fortunate that this collection survived two World Wars and the recent efforts of the university authorities to get rid of the old bones. For the latter we must thank archaeozoologist Dr M. Teichert who for 30 years has fought to establish a proper museum for this material, a visit to which formed a highlight of my trip.

I was particularly interested in the sheep and goats, which included the Bharal (Pseudovis nayaur), as well as the Argali and Urial wild sheep. There were crosses of the Argali with the Merino which had retained a short tail, but acquired a white woolly fleece. This contrasts with my own crosses of the Mouflon with the Merino, which although having more underwool, retained outer coat hairs. There were also examples of crosses of Angora goats with 'ordinary' goats, a cross that is common today in upgrading the latter for mohair production. An excellent booklet produced by the museum has photos taken about 1911 showing wild horses obtained in 1901, the range of cattle breeds kept, and Prof. S. von Nathusius who was director of this research centre from 1910 to 1914.

Other impressive museums were the Archaeology Museum in Halle - where I saw a replica of the famous Jordansmuhle horned ram from the Silesian TRB in Poland (mentioned on pp. 72 and 78B of my Sheep and Man) and judged the corded decoration not to be a fleece - and the Ethnography Museum in Leipzig, which specialises in Soviet Eurasia, an area not well known in the West.

In addition to East Berlin zoo, I visited the zoo at Erfurt, where I was honoured that the Director, Prof. Altman, had put on a special demonstration of sheep and goats for me, collected from different parts of the zoo and put into pens for the occasion. I was interested to see for the first time the bezoar wild goat of Iran and Turkey, which was the main ancestor of domestic goats, as well as the markhor of Afghanistan. This has corkscrew horns, whereas the bezoar has large horns with a sabre curve. There were short-haired black goats from Syria and long-haired Asiatic goats from Tadzhikistan.

The only African breed was the Damara of Angola, which had surprisingly long hair and much underwool for an animal living in a hot climate. The Bulganian, a Balkan type with corkscrew horns and a thick coat, brought us back to Europe. The native goat of the region, the Thüringer Wald or Land Goat, was of particular interest at Erfurt. This had a

short, tan coat with black extremities, and the herd had just produced the first white kid in eighteen generations. Other European goats on show were the white Swedish Jamtland and the Swiss Walisser (Valais) breed, which has the same black foreparts as the Bagot in Britain.

The most exotic sheep being kept was the Mongolian, a hairy black-headed breed with a short fat tail. Prof. Altman had shown that this type of tail can be produced by crossing a breed with a long fat tail with a fat-rumped breed. An example of a fat-rumped breed on show was the polled and lop-eared Hissar of Soviet Central Asia, which has a brown hairy fleece. From Africa there were polled ewes of the Cameroon Dwarf breed with the hair coat that sheep had in the past before a fleece was developed.

There was the hairy Racka (pronounced Ratska) breed of Hungary, with corkscrew horns, and the remainder were native breeds of Germany, which I shall describe elsewhere.