

substitute space-traveller. No other symbiotic species has served us in such a complex and varied way. Even today, with all our technological advances, the dog is still actively employed in most of his functional roles. Many of the hundreds of breeds that can now be distinguished are purely ornamental, but the day of the dog with a serious task to perform is far from over.

So successful has the dog been as a hunting companion that few attempts have been made to domesticate other species in this particular form of symbiosis. The only important exceptions are the cheetah and certain birds of prey, especially the falcon, but in neither case has any progress been made with regard to controlled breeding, let alone selective breeding. Individual training has always been required. In Asia the cormorant, a diving bird, has been used as an active companion in the hunt for fish. Cormorant eggs are taken and hatched out under domestic chickens. The young sea-birds are then hand-reared and trained to catch fish on the end of a line. The fish are brought back to the boats and disgorged, the cormorants having been fitted with a collar to prevent them swallowing their prey. But here again no attempt has been made to improve the stock by selective breeding.

Another ancient form of exploitation involves the use of small carnivores as pest-destroyers. This trend did not gain momentum until the agricultural phase of our history. With the development of large-scale grain storage, rodents became a serious problem and rodent-killers were encouraged. The cat, the ferret and the mongoose were the species that came to our aid and in the first two cases full domestication with selective breeding followed.

Perhaps the most important kind of symbiosis has been the utilisation of certain larger species as beasts of burden. Horses, onagers Asiatic wild asses), donkeys (African wild asses), cattle, including the water buffalo and the yak, reindeer, camels, llamas and elephants have all been subjected to massive exploitation in this way. In most of these cases the original wild types have been 'improved' by careful selective breeding, the exceptions to this rule being the onager and the elephant. The onager was being used as a beast of burden by