



BORZOI



ST. BERNARD

The diversity of dog breeds is seen in the differences in their skulls.

variation is limited to relatively few traits. Bone finds from the Paleolithic show that dogs of different sizes existed even then. Different types of dogs which were used for different purposes are known to have been around for 4,000 years. A variety of types has also been proven to have existed in the Roman Empire (De Grossi Mazzorin & Tagliacozzo 2000). For thousands of years, dogs were selected according to the purpose they were to serve. The formulation of breed standards marked a break with selection for purely functional purposes and saw, for the first time, the focus move to appearance. In an era in which the sole purpose of most dogs is to entertain their owners or act as a status

symbol, some breeds are now selected for “aesthetic” traits (and as we know, beauty lies in the eye of the beholder). In recent years, scientists have attempted, using molecular genetic techniques, to distinguish the breeds from each other on the basis of DNA (Parker et al. 2004, Lindblad-Toh et al. 2005, Sundqvist et al. 2006, Streitberger et al. 2008). As the majority of today’s dog breeds are fairly new, however, with their beginnings coinciding with the establishment of the breeders’ associations, no clear genetic differentiation is yet seen (Parker et al. 2004, Lindblad-Toh et al. 2005). Only two clearly distinct groups exist alongside the numerous “young” breeds: firstly, a group

of Asian dog breeds (Shar Pei, Shiba Inu, Chow Chow, Akita), and secondly the Basenji.

The way in which breeds are categorized by the various umbrella associations is based on pragmatic criteria. The FCI, for example, bases its classification scheme on the use and supposed geographic origin of breeds. The American Kennel Club’s classification system, on the other hand, is based almost solely on function and recognizes fewer groups. Neither system reflects the temporal sequence in which the breeds emerged or the actual relationships between them.

GREYHOUND



YORKSHIRE TERRIER



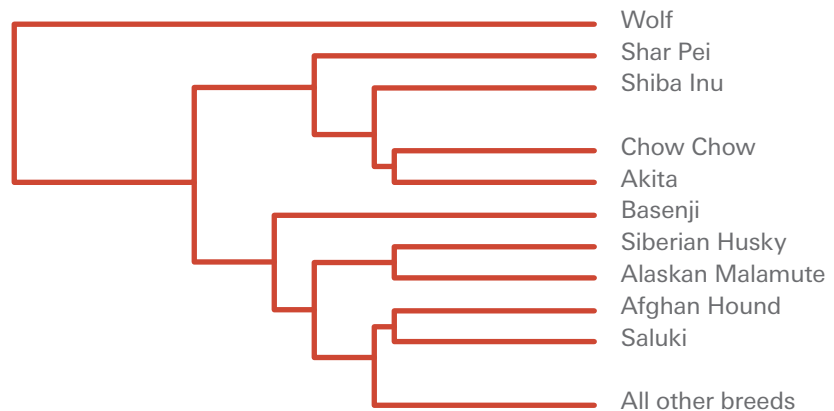


ENGLISH BULLDOG



GERMAN SHEPHERD DOG

Phylogenetic tree of dog breeds



Of the 85 breeds investigated, 76 were barely distinguishable (= all other breeds). Just nine breeds form the first branches in the phylogenetic tree (based on Parker et al. 2004).

HUNGARIAN WOLFHOUND



PUG

