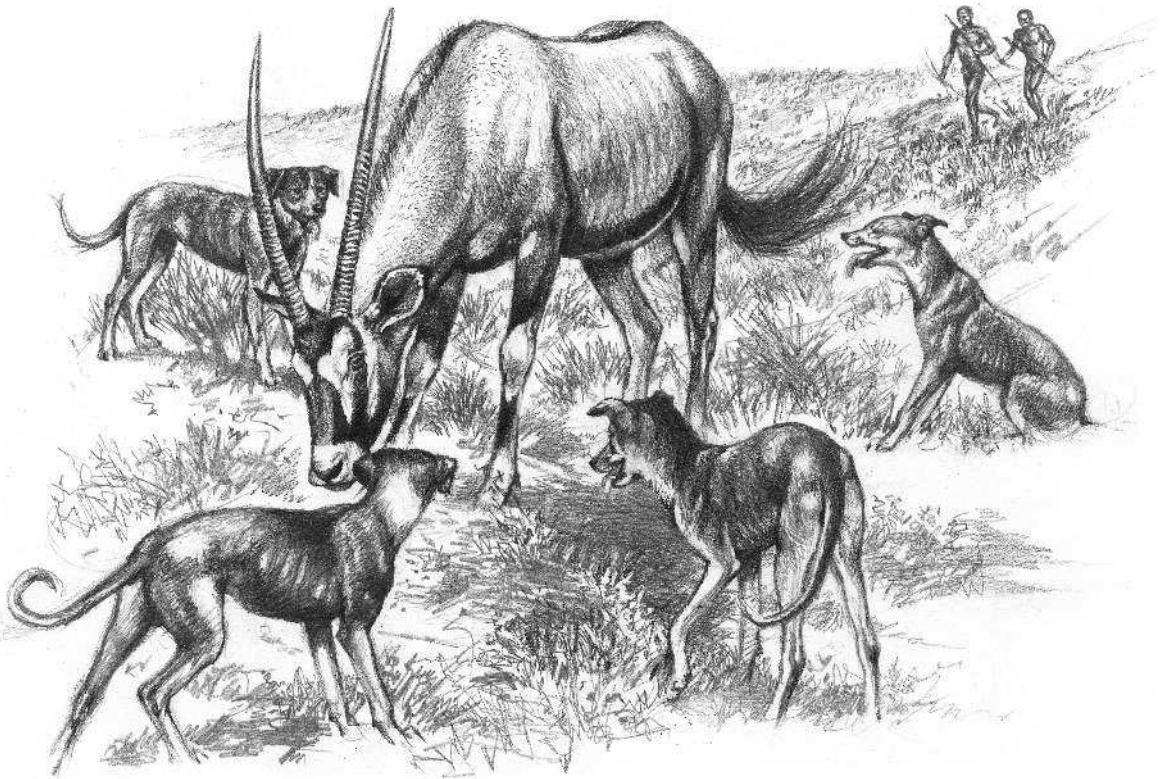


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Introduction

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In the Introduction to the first edition of this book – published some 20 years ago – I bemoaned the general lack of objective and reliable scientific information about the domestic dog, and attributed this dearth of knowledge to scientific chauvinism. “Most modern biologists and behavioral scientists,” I wrote:

seem to regard domestic animals as “unnatural” and therefore unworthy or unsuitable as subjects for serious scientific investigation. According to this stereotype, the domestic dog is essentially a debased and corrupted wolf, an abnormal and therefore uninteresting artifact of human design, rather than a unique biological species (or superspecies) in its own right, with its own complex and fascinating evolutionary history. (Serpell, 1995, p. 2)

I am happy to report that this statement no longer rings true. Indeed, the domestic dog has become something of a scientific celebrity in recent years, and I would like to believe that the material presented in the first edition contributed to this change of heart. Numerous, highly respected, “high impact” scientific journals now regularly publish scholarly articles on the evolutionary origins of the dog, its molecular genetics, its social behavior and cognitive capacities, and its complex interactions with human society. Major international conferences are devoted exclusively to “canine science,” while innumerable TV documentaries, books and blogs have done a remarkable job of conveying all of this new dog science to a seemingly insatiable popular audience. At the same time, the dog’s success as a social companion and working partner has continued to grow, not only among developed nations but also in many developing countries. In 1995, for example, when the first edition came out, an estimated 55 million dogs lived in the USA. Now the figure is closer to 80 million. And, as people’s attachments for dogs as family members and valued assistants have grown, so too has concern for the health and welfare of these animals.

Celebrity, however, comes at a price. More people may know more about dogs than ever before, but it is often a shallow sort of knowledge that is easily exploited by self-styled dog experts for personal gain. The carefully edited antics of these charismatic but frequently ill-informed dog gurus and “whisperers” may be entertaining to watch on TV but, ultimately, it is the dogs who suffer when their owners imbibe too much of this quasi-scientific “snake oil.” A major goal of this book is to serve as an antidote to these popular depictions by providing a state-of-the-art scientific assessment of what we truly know – and what we don’t know – about the evolution, natural history, and behavior of *Canis familiaris*. The field of canine science has come a long way since 1995 but, as readers of this book will discover, many aspects of the biology and behavior of dogs and their relations with people still remain mysterious.

The remarkable scientific progress in our understanding of dogs in the last 20 years means inevitably that some of the material presented in the original edition of *The Domestic Dog* is no longer current or correct. Scientific advances have also identified some important gaps in the previous volume, notably in areas where research has developed most rapidly in the last two decades. In the process of bringing their chapters up to date, and incorporating so much new information, many of the original contributors to the book have accomplished extraordinary feats of revision and synthesis in their revised chapters. The addition of seven entirely new chapters, addressing research topics that barely existed 20 years ago, has also successfully filled the more obvious holes in the original structure of the book.

For convenience, this new edition is divided into four parts. Part I (*Origins and evolution*) addresses two fundamental questions: Where did the domestic dog come from? And how, in evolutionary terms, did it get to where it is today? Chapter 2 explores the latest archaeological evidence for dog origins and domestication, and Chapter 3 examines the growing body of molecular evidence of where the dog came from and when. Chapter 4 reassesses the evolutionary mechanisms underlying the transformation of the earliest dogs into some of the working breeds we see today, each with its own distinctive behavior and morphology.

Part II (*Behavior, cognition and training*) is devoted to the topic of domestic dog cognition and behavior, as well as addressing so-called “behavior problems” and their treatment. Chapter 5 looks at the complex world of canine behavioral genetics and what is known about the inheritance of behavioral traits in different breeds, and Chapter 6 reviews the extensive literature on behavioral development in dogs, particularly with regard to the long-term effects of early experience. Chapter 7 explores methods of identifying and quantifying breed and gender differences in behavior, while Chapter 8 addresses the topic of canine social and communicatory behavior as well as exploring differences in social behavior between wolves and dogs. Chapter 9 presents a timely review of the literature on canine aggression, including the contentious issue of breed-specific legislation, and Chapter 10 discusses the extensive new literature on the domestic dog’s cognitive and emotional capacities. Chapters 11 and 12 both address the topic of dog training and behavior modification; first from the viewpoint of veterinary behavior, and second, from an applied ethology perspective.

Part III (*Dog–human relationships*) focuses on the dog’s roles, welfare, and status in human society. Chapter 13 considers the remarkable physical and psychosocial benefits that humans appear to derive from canine companionship. In contrast, Chapter 14 summarizes the many welfare problems confronting dogs in their various relationships with humans. Chapter 15 addresses cultural diversity in human attitudes towards the domestic dog, and the surprising degree of ambivalence that dogs excite despite their extraordinary contribution to human lives and livelihoods.

Part IV (*Life on the margins*) examines the lives of dogs living on the fringes of human society, the various problems they face and cause, and the possible solutions to those problems. The ecology and social life of free-roaming and feral dogs is described in Chapters 16 and 17, while Chapter 18 is devoted to the various impacts of free-roaming dogs on wildlife populations. Chapter 19 discusses the contentious issue of how to accomplish dog population management in ways that are both culturally sensitive and humane. Finally, Chapter 20 provides a brief overview of some of the key issues and remaining gaps in our knowledge of the domestic dog and its relations with people.

Each of the new chapters contributed to this edition of *The Domestic Dog* has been subjected to critical peer review prior to publication. I am extremely grateful to Cristian Bonacic, Crista Coppola, Katinka DeBalogh, Göran Ericsson, Elena Garde, Suzanne Hetts, Alexandra Horowitz, Greger Larson, Evan MacLean, Ann McBride, Guillermo Perez, Peter Savolainen and Stephen Zawistowski for volunteering their valuable time and expertise to this effort. I am also hugely indebted to Priscilla Barrett for once again enhancing the text with her elegant chapter illustrations. I wish to thank all of the eminent contributors to this book, and the staff at Cambridge University Press, for their patience and forbearance during this volume’s somewhat lengthy production. Lastly, I am profoundly grateful to Jacqui, Oscar and Ella for all of their love, support and forbearance.

References

Serpell, J. A. (1995). *The Domestic Dog: Its Evolution, Behaviour and Interactions with People*. Cambridge: Cambridge University Press.