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0521814146 - The Domestic Horse: The Origins, Development and Management of its Behaviour

Edited by D. S. Mills and S. M. McDonnell

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## The Domestic Horse

### *The Origins, Development and Management of its Behaviour*

Humans have had a profound influence on the horse since its domestication in the late Neolithic period. Used for transport, labour, food and recreation, it has become important in many facets of our societies.

Daniel Mills and Sue McDonnell have produced an exceptional account of our current knowledge of the development and management of the behaviour of the domestic horse from its wild roots.

*The Domestic Horse* brings together, for the first time, an unrivalled collection of international scientific authors to write on the latest work concerning the behaviour and welfare of the domestic horse.

Beautifully illustrated throughout, this book will appeal to animal scientists, those working with horses in a professional capacity and the owner enthusiast. It also provides sound complementary reading for animal/equine science courses and veterinary students.

DANIEL S. MILLS is Professor of Veterinary Behavioural Medicine and Director of the Animal Behaviour Referral Clinic at the University of Lincoln. He is the first specialist in veterinary behavioural medicine to be formally recognized by the Royal College of Veterinary Surgeons and has published widely on behaviour problems in the domestic horse, and is co-author of *Equine Behaviour, Principles and Practice*.

SUE M. McDONNELL is an associate professor and founding head of the Havemeyer Equine Behavior Programme at the University of Pennsylvania School of Veterinary Medicine, New Bolton Center. She has published widely on stallion sexual behaviour and dysfunction, and is author of *The Equid Ethogram, A Practical Field Guide to Horse Behavior*.

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# The Domestic Horse:

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*Edited by*

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We dedicate this text to

**Kathe Houghton, Hans Klingel and George Waring**

who have done more than they will ever realize  
to inspire a generation of scientists concerned  
about horses.

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## Preface

Holar in Northern Iceland in 2002 saw probably the greatest gathering in recent times of equine behaviour and welfare scientists, with expertise spanning five decades of research. The workshop was sponsored by the Dorothy Russell Havemeyer Foundation and co-organized by the editors of this text.

It was a unique opportunity for scientists to come together from across the globe and present their work and review the current state of knowledge on all aspects of the science underpinning our understanding of the impact of management practices on the horse. The meeting began with a dozen scientific poster presentations on the latest research ranging from the effect of different handling and training techniques to data on conflicting physiological measures that are often used to assess stress in the horse. The first invitation session was chaired by Professor George Waring and focused on the foundations of equine behaviour, with presentations critically examining current theories on its domestication, behavioural genetics and development. State of the art reviews on equine com-

munication and the behavioural ecology of the horse highlighted the horse's normal adaptive range and the extent to which this is challenged in domestic situations. In the second session, chaired by Professor Hans Klingel, attention focused further on specific behaviour patterns in the horse and the relevance of this information to improving our management of horses in captivity. Special emphasis was placed on the importance of diet and feeding practices, play and sexual behaviours. The third session, chaired by Professor Frank Ödberg, examined management practices and the problems that commonly arise as a result. Invited presentations focused on problems of the ridden horse, training and behavioural rehabilitation in the horse and recent advances in treatment of equine stereotypies (stable vices). The final session was chaired by Professor Katherine Houpt and focused specifically on equine welfare. Information on the scientific techniques and approaches used to assess welfare was followed by presentations on practical welfare issues faced in a range of countries

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from Australia to mainland Europe and Iceland to Brazil and North America. The issues facing various cultures with different socio-economic pressures and where horses were used in very different contexts were also highlighted. Practical welfare issues ranging from ethologically sound housing to training techniques and the assessment of pain were also discussed in greater depth. Throughout the meeting concern was expressed through the discussions at the harm that could be done from well-meaning intention, which unfortunately does not always equate with good welfare for the horse. Closer examination of many popular practices revealed that there was still insufficient evidence in many cases for the beneficial claims made, and in some cases real harm might occur. It was recognized that education of the public has a key role to play in bringing about a global improvement in equine welfare, but this must be based on sound science more than popular opinion. Regrettably, at present, funding opportunities for research into these matters are severely limited.

The meeting finished with delegates agreeing on a consensus statement on the importance of collective responsibility for equine welfare and the relationship between scientists and the media for improved welfare:

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The group proposes that the welfare of the domestic horses is both an individual and societal responsibility. Research is required into both the fundamental and applied aspects of equine behaviour to facilitate the development and dissemination of soundly based scientific knowledge to help provide optimal welfare in practice. In order to achieve this, it is important that good research is widely communicated and not misrepresented in public interpretations of the work.

To this end there have been two initiatives from this meeting to increase the public understanding of equine science. First, the abstracts from the conference are available online at: <http://www2.vet.upenn.edu/labs/equinebehavior/hvnrwkshp/hv02/hvvrk6-02.htm>, and second, and perhaps most importantly, this text has been produced, based largely but not solely around the talks given and updated to 2004. This publication was always seen as an essential product of this meeting, bridging the gap not only between the public and scientists but also between the scientific groups working on equine behaviour. Naturally these groups have developed along their own paths and publish in the journals most appropriate to their discipline. This can mean that there is not always as great an awareness of the current state of the art as there should be, even amongst experts in the field. The aim of this text is to bring this information to an even wider audience, to educate and, we hope, to inspire.

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anonymously and have given us so much of their time freely to review and enhance the work of their peers, which is presented here. A work such as this involves commitment from many, not least our families who have supported us throughout. Finally we would like to thank the staff at CUP who have worked on its production, especially Tracy Sanderson, Sarah Jeffery and Martin Griffiths.