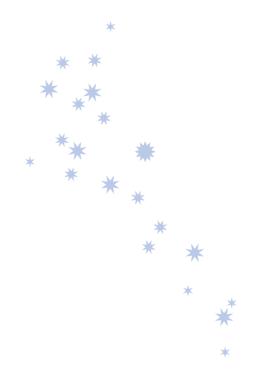


A Walk through the Heavens

A Guide to Stars and Constellations and their Legends

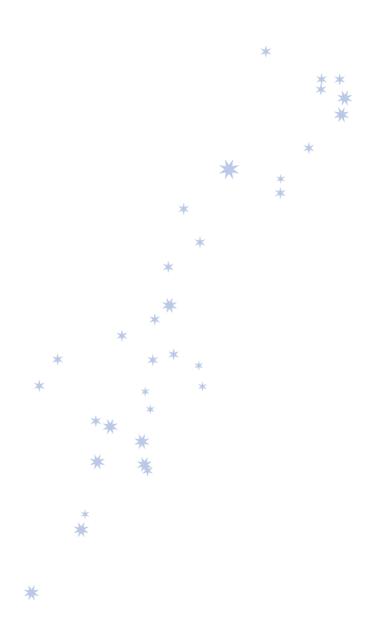
What is that star called? Where is the Great Bear? A Walk through the Heavens is a beautiful guide to the pathways in the night sky which answers these questions and more. Written for complete beginners, this book introduces you to the patterns of the northern hemisphere's sky in a clear and memorable way. Its simplified maps and clear instructions make it easy for you to find the main constellations and identify the bright stars within them. This fourth edition adds color and a map of the Moon to its successful formula. Ancient myths and legends of the sky, some thousands of years old, are retold to add to the wonder and mystery of the stars. No equipment is needed to use this practical guide, just your eyes and clear dark skies above – simply look up, relax and enjoy this journey across the sky.





This book is dedicated to our grandchildren:

Elena, Sari, Ariel, Jenny, Litan, Ilan, David, Ariana, Ori and Kylian





Milton D. Heifetz and Wil Tirion

A Walk through the Heavens

Fourth Edition

A Guide to Stars and Constellations and their Legends





CAMBRIDGE UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

One Liberty Plaza, 20th Floor, New York, NY 10006, USA

477 Williamstown Road, Port Melbourne, VIC 3207, Australia

4843/24, 2nd Floor, Ansari Road, Daryaganj, Delhi - 110002, India

79 Anson Road, #06-04/06, Singapore 079906

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org Information on this title: www.cambridge.org/9781316645512

© The Estate of Milton D. Heifetz, maps and illustrations Wil Tirion, 1996, 2004, 2017

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 1996 Second edition 1998 Third edition 2004 Fourth edition 2017

Printed in the United Kingdom by Clays, St Ives plc

A catalog record for this publication is available from the British Library

ISBN 978-1-316-64551-2 Paperback

Illustrations, book design and typesetting by Wil Tirion

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication, and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.



Contents

Acknowledgements	page ix
Introduction	1
Part 1 — Measuring Distances in the Sky	3
Measuring distances in the sky	4
Distances to the stars	6
Three-dimensional awareness	6
The brightness of stars	7
The Milky Way	9
Life in the heavens	9
Instructions for the use of the atlas	10
Four seasonal star maps	11
Part 2 — A Walk through the Heavens	17
A Walk through the Heavens	19
Starting from the Big Dipper	21
To locate Polaris in the Little Dipper	21
To locate Cassiopeia	21
To locate Cepheus	23
To locate Cygnus, the Northern Cross	25
To locate Vega in Lyra	25
To locate Draco	27
To locate Arcturus in Bootes	29
To locate Cor Caroli in Canes Venatici	29
To locate Corona Borealis	29
To locate Hercules	31
To locate Perseus and Andromeda	33
To locate Pegasus	33
To locate Aquila	35
To locate Hamal in Aries	37
To locate Fomalhaut in Piscis Austrinus	37
To locate Diphda in Cetus	37
To locate Leo	39
To locate Cancer	30

V



More Information

To locate Spica in Virgo	41
To locate Corvus	41
To locate Hydra, the Water Snake	41
To locate Ophiuchus	43
To locate Serpens	43
To locate Antares in Scorpius	43
To locate Sagittarius	43
To locate Libra	43
Starting from Orion	45
To locate Sirius in Canis Major	47
To locate Procyon in Canis Minor	47
To locate Taurus and its star clusters the Hyades and the Pleiades	47
To locate the Pleiades	47
To locate Gemini	49
To locate Auriga	49
To locate Lepus and Columba	51
To locate Eridanus	51
To locate Cetus	51
Summary of pathways starting from the Big Dipper and Cassiopeia	52
Summary of pathways starting from Cygnus and Leo	53
The Milky Way and related constellations	54
Part 3 — Legends of the Heavens	55
Legend of Andromeda	56
Legend of Aquarius	56
Legend of Aquila	56
Legends of Aries	57
Legend of Auriga	57
Legend of Bootes	57
Legends of Canis Major and Canis Minor	58
Legend of Cassiopeia	58
Legend of Cetus	59
Legend of Coma Berenices	59
Legends of Corona Borealis	59
Legend of Corvus	60
Legend of Crater	61
Legend of Cygnus	61

vi



More Information

Legend of Delphinus the Dolphin	61
Legend of Draco the Dragon	62
Legend of Eridanus	62
Legends of Gemini	62
Legend of Hercules	63
Legend of Hydra the Water Snake	64
Legend of Leo	64
Legend of Libra	64
Legends of Lyra	65
Legend of Ophiuchus	66
Legends of Orion	67
Legend of Pegasus	68
Legend of Perseus	69
Legends of the Pleiades	70
Legend of Sagitta the Arrow	71
Legend of Sagittarius	71
Legend of Scorpius	72
Legends of Taurus	73
Legend of Ursa Major	74
Legend of Virgo	74
Legends of the Milky Way	75
Part 4 — There's More to See!	77
Circumpolar constellations	78
Test of vision	79
Planets	82
Planet locations until 2024	83
Map of the Moon	84
The Moon	86
Binocular sights	87
Meteor showers	90
The brightest stars	91
Navigational stars	92
Minor constellations	94
Constellations Index	95

vii



Acknowledgements

I wish to acknowledge the excellent suggestions I have received from Larry Schindler of the Smithsonian–Hayden Planetarium of Boston and the late George Lovi of the Hayden Planetarium of New York. Their meticulous critique of the manuscript is greatly appreciated. I also wish to express my gratitude to Robert Kimberk and Freeman Deutsch of the Harvard University Center of Astrophysics, Van Del Chamberlain of the Hansen Planetarium in Salt Lake City and to William Luzader.

