

The How-To Book for the Remarkable Sports of Mountain and Trials Unicycling

The *Essential Guide to Mountain and Trials Unicycling* is the complete instructional book for riding off-road on one wheel. This landmark guide provides tips and techniques for beginners venturing off-road for the first time and more advanced riders honing their skills over rougher terrain.

With over 250 photographs and easy to understand instructions, this book introduces the basics of trail riding and describes advanced techniques for climbing and descending more difficult terrain. For unicycle trials, it describes the full range of techniques for riding both urban and natural obstacles. A full chapter is devoted to equipment and choosing the best unicycle for different styles of riding.

Kris Holm is a world trials champion and legendary mountain unicyclist. As the best-known and one of the sport's most experienced riders, he helped shape the fundamentals of muni and trials as they exist today. In this book Kris shares entertaining stories, photos and knowledge gained from riding adventures around the world.



Inside you'll find tips for:

- Getting started
- Choosing the best equipment
- Riding over obstacles
- Climbing and descents
- Using geared unicycles and brakes
- Conserving energy on long rides
- Pushing limits while keeping safe

\$19.95

ISBN 978-0-9868418-0-4

9 780986 841804

90000>

HOLM The Essential Guide to Mountain and Trials Unicycling Gradient Press



The Essential Guide to Mountain and Trials Unicycling

KRIS HOLM



First Edition

“A wheel, a trail, legs and lungs—what could be simpler or more beautiful? With straightforward prose and clear, helpful photos, Kris Holm illuminates the techniques, pitfalls, joys and terrors of mountain unicycling for the beginner and aficionado alike. The Essential Guide to Mountain and Trials Unicycling reveals a sport far more diverse and accessible than is immediately apparent, and celebrates the adventurous spirit shared by climbers, skiers, hikers and all who love being in the mountains.”

— **Michael Kennedy**

*Long-time climber and Editor-in-Chief,
Alpinist Magazine*

“Kris' unique ability to break down some of the most subtle aspects of unicycling left me continuously agreeing on things that I've done for years, yet never committed into conscious thought.”

— **Ryan Atkins**

2006 Unicycle Trials World Champion

“A superb book by a superb rider who has helped take the sport from its beginnings to where it is today.”

— **George Peck**

Mountain and Trials Unicycling Pioneer

“I've had the pleasure of knowing Kris for many years, first meeting him in the early "Freeride Mountain Bike" filming days in the '90's...I give him praise for sharing his knowledge with other uni-enthusiasts!”

— **Wade Simmons**

Godfather of Freeride Mountain Biking

“This book should be on the top of the reading list for any Muni or Trials unicyclist. It not only gives you the background and development of the sport but also offers advice and help from Grandmaster himself...”

— **Roger Davies**

*Mountain Unicycling Pioneer and Founder of
Unicycle.com in the UK.*

“This book offers a rare gift—the direct transmission of experiential wisdom from a master. The fundamental intention...to expedite your learning curve, maximize your enjoyment, and encourage creative flow...ingredients to create your own unique uni adventures.”

— **Ryan Leech**

*Professional Bike Trials Rider and
Integral Coach*

“Kris demonstrates through fantastic photos and easy to follow instructions that mountain unicycling can be fun for just about anyone...In the sharing of his own stories, Kris's passion and depth of knowledge shine through. Victory on one wheel!”

— **Catharine Pendrel**

*Olympian and 2010 Cross Country Mountain
Bike World Cup Overall Champion*

“This book is another triumph...the best-looking unicycling book ever made! It's worth the price for the pictures alone, but there's so much more beyond that.”

— **John Foss**

*Multiple Unicycle Track and Freestyle World
Champion and Mountain Unicycling Pioneer*

“Kris' book inspires me to get out and ride!”

— **Irene Genelin**

2010 XC Muni World Champion

“In this book Kris shows that you don't have to be an elite athlete to have fun. It reminds me of the early days of mountain biking, when people were intimidated before they realized that there are many ways to experience this beautiful sport.”

— **Hans Rey**

*Former Bike Trials World Champion and
Mountain Biking Pioneer*

“From slacklining to World Cup ski racing, mountain unicycling is one of the best ways to cross train for both physical balance and mental control. Finally we have a book that explains how to do it.”

— **David Hobbs**

Former U.S. National Telemark Ski Team Member

“When I first met Kris in 1991, I would never have guessed that muni would turn into the diverse and established sport that it is today. Kris shows us that unicycles have as much a place in the cycling world as any two wheeled bike.”

— **Andreas Hestler**

*Olympian and 2-time Cross Country Mountain
Bike Canadian Champion*

“Kris’ book offers entertaining insight into our sport’s history and his personal experiences as a extreme unicyclist. It is a valuable handbook for every rider who wants to improve and enlarge his or her repertoire of unicycle skills...”

— **Lutz Eichholz**

Mountain Unicyclist and Guinness Record Holder

“Kris Holm is a kindred spirit who has great respect for the natural world, building community while helping redefine his sport. His book is intriguing whether you're a serious unicyclist or simply want a fun diversion alongside your major sport.”

— **Lynn Hill**

Climber

“It's exciting to finally see a technical book published about our activity, and with such quality. This guide is what was missing to establish mountain and trials unicycling as fun but serious sports.”

— **Anne Sophie Rodet**

2010 Technical Muni North American Champion

“From learning newcomers to even the most experienced riders...this book provides both visual instruction and showcases the amazing progression of the sport.”

— **Max Schulze**

2010 Unicycle Trials World Champion

“This book does more than teach unicycling - it expresses the feeling of mountain unicycling. Kris...shares his life long experience and makes world class unicycling skills understandable for beginners.”

— **David Weichenberger**

DH Muni Multiple World Champion

RIGHT Dennis D'Alfonso rides at Donner Summit,
California. HANS VAN KOPPEN





The Essential Guide to
**Mountain and Trials
Unicycling**

KRIS HOLM

First Edition
Gradient Press

THE ESSENTIAL GUIDE TO
MOUNTAIN AND TRIALS UNICYCLING

Copyright © 2012 by Kris Holm

ALL RIGHTS RESERVED. No part of this book may be reproduced or transmitted in any form by any means, electronic or mechanical, including photocopying and recording, or by any information storage and retrieval system, except as may be expressly permitted in writing by the publisher.

Published by
Gradient Press.
www.gradientpress.com

Library and Archives Canada Cataloguing in Publication
Holm, Kris, 1973-
Mountain and trials unicycling / Kris Holm. -- 1st ed.

PBK ISBN 978-0-9868418-0-4
EBK ISBN 978-0-9868418-1-1

1. Mountain biking. 2. Unicycles. I. Title.
GV1059.H64 2011 796.6 C2011-900627-8

Cover and book design: Kim Groebner
Instructional photos: Sean White
Author photo: Melissa Mewdell

Printed in Hong Kong by Prolong Press,
FSC # SGS-COC-008778



PAGE 4 David Weston and friends ride through the
endless steppes of west-central Mongolia. THE AUTHOR

PAGE 8 Max Schulz finds a bouldery line in Rocky
Mountain National Park, Colorado. ROLAND SCHULZE

WARNING

**Unicycling is a potentially dangerous sport.
You can be seriously injured or die.
Read the following before you use this book:**

This is an instruction book about unicycling, a sport with inherent risk. Do not depend solely on information in this book for your personal safety. Your safety when riding depends on your own judgment, based on competent instruction, experience, and a realistic assessment of your riding ability.



The advice given in this book is the author’s opinion. Consult your physician before engaging in any practices described by the author. Do not ride your unicycle in places where it is prohibited by law.

There are no warranties, either expressed or implied, that this instruction book contains accurate and reliable information. There are no warranties as to fitness for a particular purpose or that this book is merchantable. Your use of this book indicates your assumption of the risk of death or serious injury as a result of unicycling’s risks and is an acknowledgement of your own sole responsibility for your safety in unicycling or in training for unicycling.

The author assumes no liability for accidents happening to, injuries sustained by, or property damage incurred by, readers who engage in the activities described in this book.




For Mom and Dad

	Foreword	13
	Chapter 1 – The Game of Muni and Trials	17
	Chapter 2 – Equipment	29
	SADDLES	32
	SEATPOSTS	33
	SEATPOST CLAMPS	34
	FRAMES	36
	BRAKES	38
	TIRES	40
	RIMS AND WHEELS	41
	HUBS	42
	CRANKS	47
	GEARED HUBS	47
	Chapter 3 – Safety	53
	SAFETY GEAR	57
	Chapter 4 – Ethics	59
	Chapter 5 – Unicycle Trials	65
	STILL STANDS	66
	BALANCE LINES	68
	HOPS	74
	GAPS	93
	PEDAL GRABS	97
	DROPS	101
	VISUALIZATION	110



The author descends slickrock on Amasa Back Trail in Moab, Utah. NATHAN HOOVER

	Chapter 6 – Mountain Unicycling	121
	GETTING STARTED	123
	RIDING UPHILL	130
	RIDING DOWNHILL	134
	BRAKING	142
	TIPS FOR TECHNICALLY DIFFICULT DESCENTS	150
	RIDING IN WET, MUDDY AND SLIPPERY CONDITIONS	158
	GEARED RIDING	160
	Conclusion	166
	Glossary	168
	Additional Resources	171
	Acknowledgements	172
	About the Author	174



John Long descends Little Moab trail in Southern California. EYAL AHARONI

Foreword

John Long

There are certain things that must be in place for an instructional book to be worthwhile. First, the author must be sufficiently experienced to have a broad view on the activity. Kris Holm was one of the originators of modern mountain unicycling as it exists outside the gym or arena with traditional riding forms. As a former world trials champion and innovator of freeride mountain unicycling, as well as a practiced expert at endurance offroad riding in its various styles (cross country, geared, etc.), Kris has helped define a new path for a sport that previously dwelt in obscurity.

The second component is a thorough understanding of equipment. As the manufacturer of the most recognizable line of high-end unicycles in the world, Kris has had his hand in the ongoing development of modern unicycles and all the various components — from hubs to saddles to aluminum frames — literally from the ground up.

The third key is the ability to relate pertinent information in a concise and comprehensive

fashion, and to package it all in a readable book. Kris's science background is evident in the well-organized presentation of this volume, not to mention a state of the art book design.

But given all of these points, the book might still be a dud without an inherent love and stoke for the sport, and that's what Kris has in spades, and the effect is contagious. For over a decade, Kris has been both a leading athlete and the sport's first ambassador, greatly increasing the visibility and popularity of unicycling internationally. To be sure, with his many films, television segments and magazine features, Kris Holm has put unicycling on the adventure sports map.

Nevertheless, unicycling is and will likely remain a niche, if not a singular activity within the action sports galaxy. This uniqueness becomes more pronounced the closer you pedal toward black diamond offroad riding, commonly called Muni (for Mountain Unicycling), which in my opinion is the ultimate expression of the unicycle



John Long in the zone on G Spot trail in Simi Valley, California. JOSH SCHOOLCRAFT

art. Others feel differently, preferring street, trials or freestyle riding. Tastes differ, ensuring diversity, and that's a good thing. But what remains the same to all unicycling is that it usually takes some hours (about ten on average) to even start to ride a unicycle down the road. A total hack skier can go a few yards. And a first time golfer can at least hit the ball with the club. But most people who first get on a unicycle cannot pedal it a single foot – and the majority never will.

The highest end of technical unicycling is so difficult that you will never see world class riders who have not put in at least a few years of sustained effort to achieve mastery. I have been involved in adventure sports my whole life and got world class at several, and can say without hesitation that cleaning, on a mountain unicycle, every inch of an extreme downhill trail like Tunnel or Rattlesnake (in Santa Barbara, California)

is a feat every bit as challenging as climbing El Capitan or riding a fifty foot wave at Jaws. In many ways, extreme unicycling is harder, and to be sure, there are far fewer people who have conquered the most difficult DH trails on a Muni than have gotten tubed at Mavericks or have climbed a big wall.

However the vast majority of riders will never tackle such extremes, choosing the pure joy and considerable challenges of wilderness cross country riding, for instance, or street and trials riding now fashionable in many urban areas. While the far end of unicycling is difficult indeed, most anyone in good physical condition who also has an adventurous spirit and a little tenacity can learn the basic skills to really cover some ground on a unicycle. And there comes a threshold that feels almost magical when you pass it. Your riding becomes fluid, natural, and at times almost effortless. Most anything you can imagine you suddenly can do. As confidence builds, you start doing things you never imagined. This is the real gift of unicycling – it takes you places you could never have seen beforehand, making the sport a quintessential adventure most every time out.

Whatever the mode of riding, this manual charts out the basics in a clear and systematic way, with most of the important points exhaustively illustrated with photos. While there is no substitute for time in the saddle, learning the basics from the world's leading expert is the most efficient way to build solid skills and to optimize your fun.

To that end, this manual is an invaluable resource. All that's left now is to read it – and ride. Happy trails.

John Long is a rock climber and author, best known as one of the top Yosemite climbers of his generation and as author of the best-selling "How To Climb" series of instructional climbing books.



Riders cruise down lower Iron Mountain, California. JIMMY MEYER / SDUNI



The Game of Mountain and Trials Unicycling

There's something compelling about simplicity. Mountain and trials unicycling take a simple concept – riding on one wheel – into remarkable places, from urban obstacles to wilderness trails and everything in between.

The author winds through the Spruce Lake Wilderness in the South Chilcotin Mountains of British Columbia. SEAN KILLEN



Portrait of a unicycle on the Plains of Abraham, Mt. St. Helens. THE AUTHOR

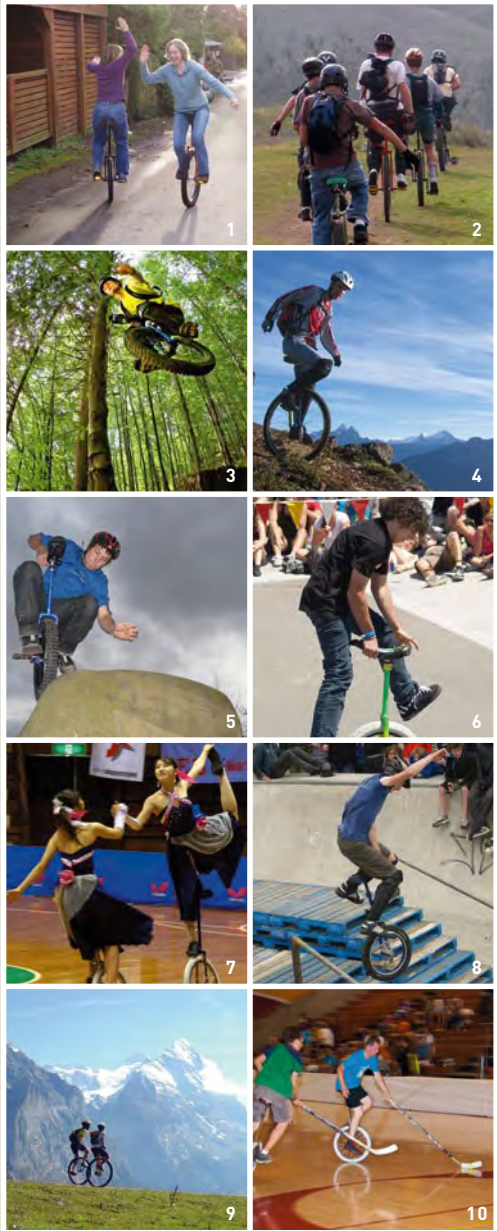
I recall a trip to Mount St. Helens, a volcano in Washington State, on the way back to Canada from a U.S. road trip. I was alone and like many good unicycle rides, it was totally spontaneous. I knew little about the place except its 1980 eruption and a 50 km trail I'd heard about called the Smith Creek Loop. Parking low on the south side of the volcano and clutching my map, I quietly pedaled up a forested ridge to emerge directly into the alpine blast zone. It was stunning. Endless blue skies, not another soul in sight, and eruption devastation stretching across the Plains of Abraham and down huge mud flows in Smith Creek. I wound my way across the Plains and down several thousand feet of twisty singletrack, past huge trees stuck like matchsticks in the old flow. One of the best things about a unicycle is that it's so minimal that you forget it's even there — it

becomes an extension of your body as you twist back and forth to roll around rocks and roots. My quads screamed for mercy on the climb out of Smith Creek back to the car, but despite the pain it felt just so good to be out once again discovering new places on my unicycle.

There's no doubt that riding on one wheel on a road, let alone a trail, can feel hard at first, even impossible. Learning the basics requires persistence and it's all too easy to give up before you succeed. But talk to a runner and they won't say they wished they had a bike. Talk to a mountain biker and they won't say they want a motor. Talk to a mountain unicyclist and there's no way they've forgotten their other wheel. In all cases it's the participants who get to decide if it's worth it. If you like the game, it turns out that you can take a unicycle anywhere you like, including offroad climbs and descents that are epic on either one or two wheels. It's an

RIDING STYLES

In general, most styles of unicycling are defined similarly to those in biking. Here are the most common types:



- 1 STANDARD:** The most popular part of the sport and the way most people start, simply riding as a form of transportation.
- 2 CROSS-COUNTRY:** Negotiating climbs and descents off-road over longer distances.
- 3 FREERIDE/DOWNHILL:** Riding style focusing on the descent, where the objective is to ride the most technically difficult terrain possible.
- 4 ALL MOUNTAIN:** Crossover between freeride/downhill and cross-country, involving off-road climbs and descents of technically difficult trails over longer distances.
- 5 TRIALS:** Riding over obstacles, either in natural terrain or in an urban environment, where the challenge relates purely to technical difficulty over short distances.
- 6 FLATLAND:** Doing tricks on flat ground (usually pavement). There are virtually an infinite number of ways to ride a unicycle and the challenge is purely related to the difficulty of moves.
- 7 FREESTYLE:** Similar to flatland riding but with a performance aspect and its own style distinct from flatland. Freestyle is the oldest type of technical riding and is often done in a gymnasium.
- 8 STREET:** Combining urban trials with tricks. The objective is to use stairs, railings and other urban obstacles as props to set up tricks.
- 9 DISTANCE/COMMUTER/TOURING:** Riding longer distances on the road.
- 10** Many other riding styles also exist, including unicycle hockey and basketball.

RIDING STYLES PHOTO CREDITS:
1 THE AUTHOR 2 KEN LOOI 3 ZIGA STERNAD 4 SHARON BADER
5 ADRIEN LICHTFOUSE 6 ROLAND SCHULZE 7 JOHN FOSS
8 ROLAND SCHULZE 9 KEN LOOI 10 JOHN FOSS



John Foss riding in Livonia Michigan, in 1981. ALAN FOSS

uncommon sport that’s perhaps the most underestimated in all of cycling.

Mountain unicycling, or muni, involves riding the same offroad terrain as mountain bikes. It also spans a similar range of riding styles, from cross-country to freeriding. Trials riding is similar to bike trials and involves riding over obstacles. The challenge is purely technical (as opposed to riding a longer distance) and the obstacles can be either natural, such as rocks and logs, or constructed, such as benches and railings. I focus on trials and muni in this book because they are the riding styles I do most often. However, they are just two niches within a much larger sport, which also includes freestyle, track racing, flatland, street, and distance riding styles, plus the hugely fun sports of unicycle hockey and basketball.



George Peck’s singular style in Seward Alaska, in 1987. CAROL GRISWOLD

I started riding in 1986 after receiving a unicycle for my 12th birthday. As a kid growing up in Victoria, Canada, I also spent many hours outside with my family – camping, climbing, kayaking, and skiing. Lacking outside influences it seemed a natural enough progression to take my unicycle off-road as soon as I could ride it down the street.

This was not the first time that anyone had ridden off-road. Unicycling in its entirety is nearly as old as biking, dating back to the late 19th century, and undoubtedly many riders have ventured onto rough terrain in the years since then. But in the late 1980’s a handful of riders focused on muni and trials in much the same way that cyclists took to mountain biking in the 1970’s, and this period has become known as the beginning of muni and trials as legitimate sports. Some of



Roger Davies nears the end of the Manzanita Trail near Auburn, California at the first California Muni Weekend, in 1996. JOHN FOSS

these riders will forever be unknown. Others shaped the popular growth of muni and trials, which today number in the many thousands of riders worldwide. The more well known of these individuals include George Peck, an Alaska-based rider who produced the first trials and muni instructional video in 1991; cross-country riders Roger Davies and Duncan Castling in the UK; technical downhill rider Thierry Bouche in France; cross-country and freestyle rider John Foss in the USA; and myself. Later, street riding pioneer Dan Heaton produced UNiVERsE (2000), the first dedicated unicycle action video, which also helped shape a new generation of street riders alongside muni and trials.

My earliest rides happened locally at a rocky, log-strewn ocean beach near my home. I’d pick



Thierry Bouche descending near basecamp at Aconcagua, Argentina, in 1992. UNKNOWN

lines across rocks, and muster the courage to traverse logs jammed above a surge channel after winter storms. Like the few other individuals riding off-road at that time, my equipment was terribly inadequate – a cheap 24" unicycle with a wickedly painful saddle, weak steel rim, and



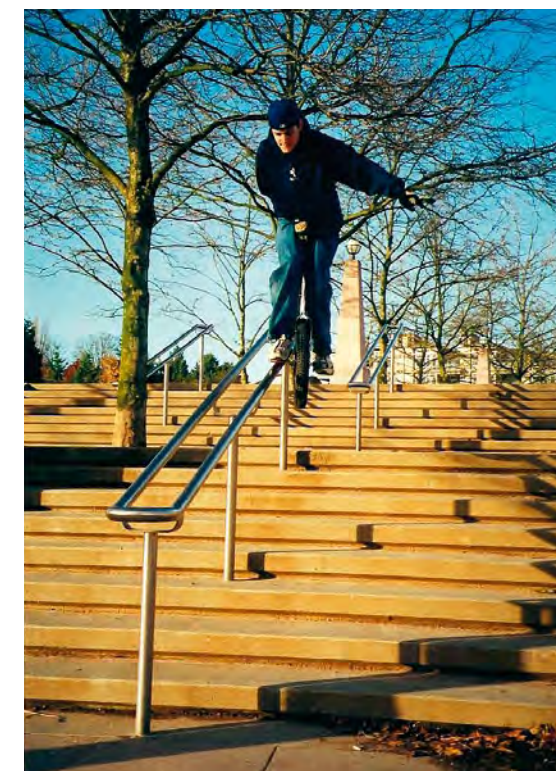
The Author rides trials in Victoria, Canada, in 1993. UNKNOWN

cranks that chronically broke or fell off. Into my teens I started riding longer trails at a nearby mountain as I pursued a different sport that took most of my focus — rock climbing. Climbing became my biggest obsession through the early 1990s, but I'd still take my uni on climbing trips across Western North America to play on trails and obstacles near camp. It was twelve years before I thought to find out whether or not I was alone in the sport.

In the Spring of 1997 I moved to Vancouver, British Columbia, and a year later discovered the Vancouver North Shore — the epicenter of the original freeride mountain biking movement. With steep descents and trails built with wooden ladder bridges and teeter totters, it was a playground for mountain unicycling like I had never seen. As a climber I felt like I'd entered the early days of Yosemite, only it was myself and my uni with an ocean of firsts available and no precedents influencing how I might attempt them.

Then, in July 1998, I typed "mountain unicycling" into an internet search engine, and was amazed to get results. A riding community already existed! I contacted Roger Davies, George Peck, and John Foss, and in September headed to John's third annual California Muni Weekend, equipped with my first custom designed muni. This was the first time that I had ever ridden with other off-road unicyclists. With a burgeoning riding community for inspiration and nearly endless opportunities for riding adventures at home, muni and trials replaced climbing as my primary focus in sport.

In the late 1990's Vancouver was also the prime location for anyone wanting to be a professional freeride mountain biker. The biggest bike action videos were filmed here, bike magazines featured the North Shore in practically every issue, major bike brands called Vancouver their



Dan Heaton pulls off the second ever railing grind, in Bellevue, Washington, in 2000, a few days after doing the first. ADAM RYZNAR

headquarters and — most importantly — there were riders building ever harder trails and inspiring each other to attempt them. As the lone one-wheeled rider of this group it didn't take long for word to get out. A few local media interviews followed, snowballing into segments in bike action videos, trials demos, magazine and TV features, sponsorships, and chances to travel and film adventure documentaries. While most of my riding was still in the form of personal trips away from crowds and media, I soon found myself in a position to impact how unicycling was viewed in the mainstream.

Since then, both riding equipment and public awareness of unicycling have improved tremendously. My first custom uni turned into a business,





LEFT Hans Van Koppen finds a waterfall gap near Santa Barbara, California. NATHAN HOOVER

ABOVE The author rides the Skybridge on Mt. Fromme, Vancouver North Shore, in 1999. JEFF VINNICK

online retailing took off, and the sport grew from obscurity to become an established niche with a full spectrum of participants, from top athletes to older riders and young kids. While the challenges remain the same, the riding techniques have become much more refined, and it's possible now to gain strong skills in a much shorter period than ever before.

In the next pages I describe techniques for trials and muni that I've learned over my years in the sport. I first describe the equipment used for different riding styles and how to pick equipment that works best for the kinds of riding you like to do. Second, I give some tips on avoiding injury and offer my thoughts on ethical riding.

I then describe techniques for trials, which forms a sport in its own right, and also the basis for many techniques used in muni. Finally, I introduce mountain unicycling, including tips to get started and more advanced techniques to climb and descend rough terrain.

Most importantly my goal is to share a passion for muni and trials that goes far beyond the mechanics of riding. If you can ride down the street, you already have the skills to ride on many trails and even over some obstacles. If you're not there yet, I include some resources to help you get started. And if you've already ridden for years, I hope there are at least a few tips here that are new. Have fun with it!