

CAVES:

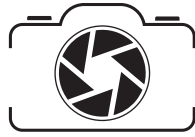
» THE UNDERGROUND WILDERNESS



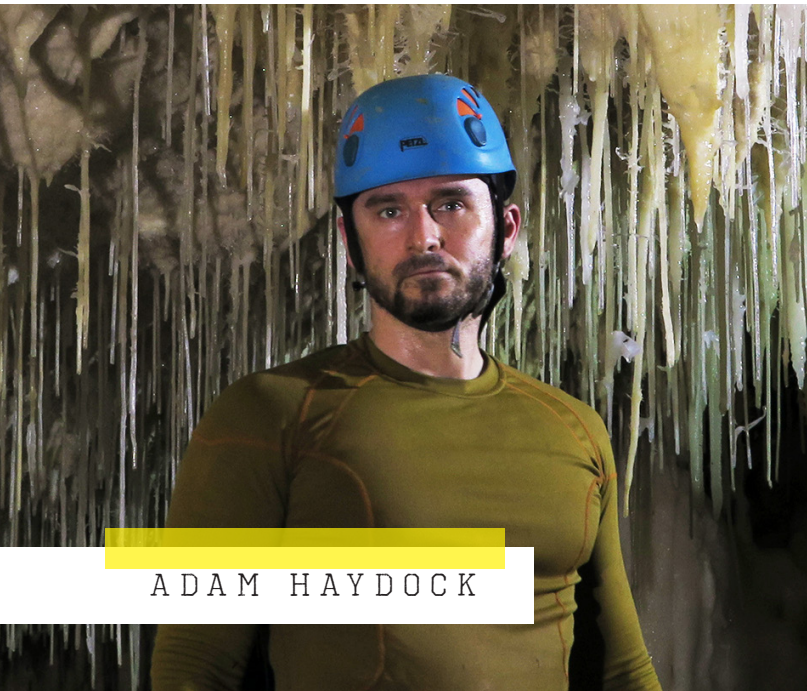
WRITTEN BY
ANTHONY KLEMM



THE GOOD AND THE BEAUTIFUL LIBRARY



MEET THE PHOTOGRAPHERS



ADAM HAYDOCK

Thirteen years ago, Adam Haydock became divemaster certified through PADI (Professional Association of Diving Instructors). He worked for special maritime operations, first responder rescues, and body recoveries. He is a self-taught photographer and goes on abundant and diverse underwater cave explorations. His knowledge, experience, and expertise are priceless to organizations and universities that want to know more about and document the underwater world of caves. His cave-diving and camping experiences have taken him on cave explorations as long as nine days, as deep as 67 m (220 ft) underwater, and as broad as North, Central, and South America.



BRANDON KOWALLIS

Brandon Kowallis is the author and photographer of *Fragile Frontiers*, a book about cave exploration, complete with his own spectacular photography. His greatest thrill is to go where no human has ever been before, which he has accomplished numerous times by caving throughout North, South, and Central America. A Fellow of the National Speleological Society (NSS), he teaches online cave photography courses, donating 50% of the proceeds back to NSS. His greatest joy is his wife and kids. They live near Salt Lake City, Utah, where Brandon is the director of Concurrent Enrollment at Salt Lake Community College.

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HUMANS SEEM TO HAVE A NATURAL TENDENCY TO EXPLORE.

This appetite to discover places never before seen is what motivated brave explorers to cross the vast ocean expanse during the Age of Discovery. It is why we reach out beyond our own planet's gravitational pull to walk on the moon and to land rovers on Mars. Here on Earth there remain many mysteries to uncover and places to explore.

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From the depths of our unmapped oceans to the deepest jungles of the rainforest, there is still so much to learn about our own planet. Hidden just beneath our feet, miles of snaking networks of undiscovered caverns lie waiting to reveal their secrets.



» ICE CAVES

When the sun shines through the top of a shallow ice cave underneath a glacier, bright hues of blue, green, and sometimes purple flood the enclosed space. Ice caves are hollowed out as the meltwater from the glacier's surface drains through cracks in the ice to create large drainage channels. During the warmer months, when the glaciers are melting, most ice caves are filled with water and are not accessible to visitors. But once the temperatures drop and the melting ceases, ice caverns can be visited and explored. Some ice caves have decorations similar to those typically found in limestone caves, such as stalactites, stalagmites, and beautifully scalloped interior walls.

Deep underneath large ancient glaciers, such as the ice caps in Antarctica and Greenland, ice caves hold important clues about the past.

CHAPTER

3



CAVE CREATURES

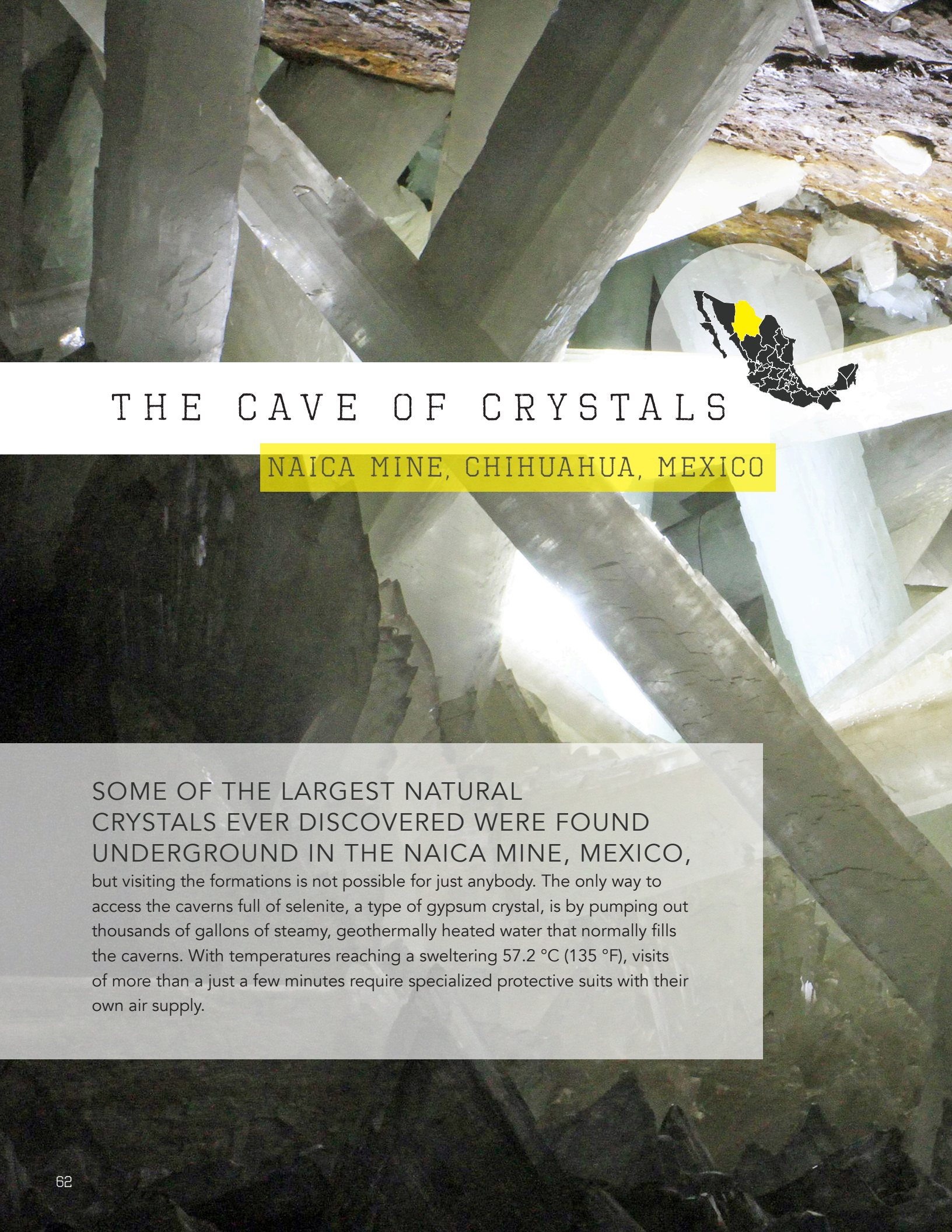
CHAPTER

6



VERTICAL
CAVING AND
CAVE DIVING





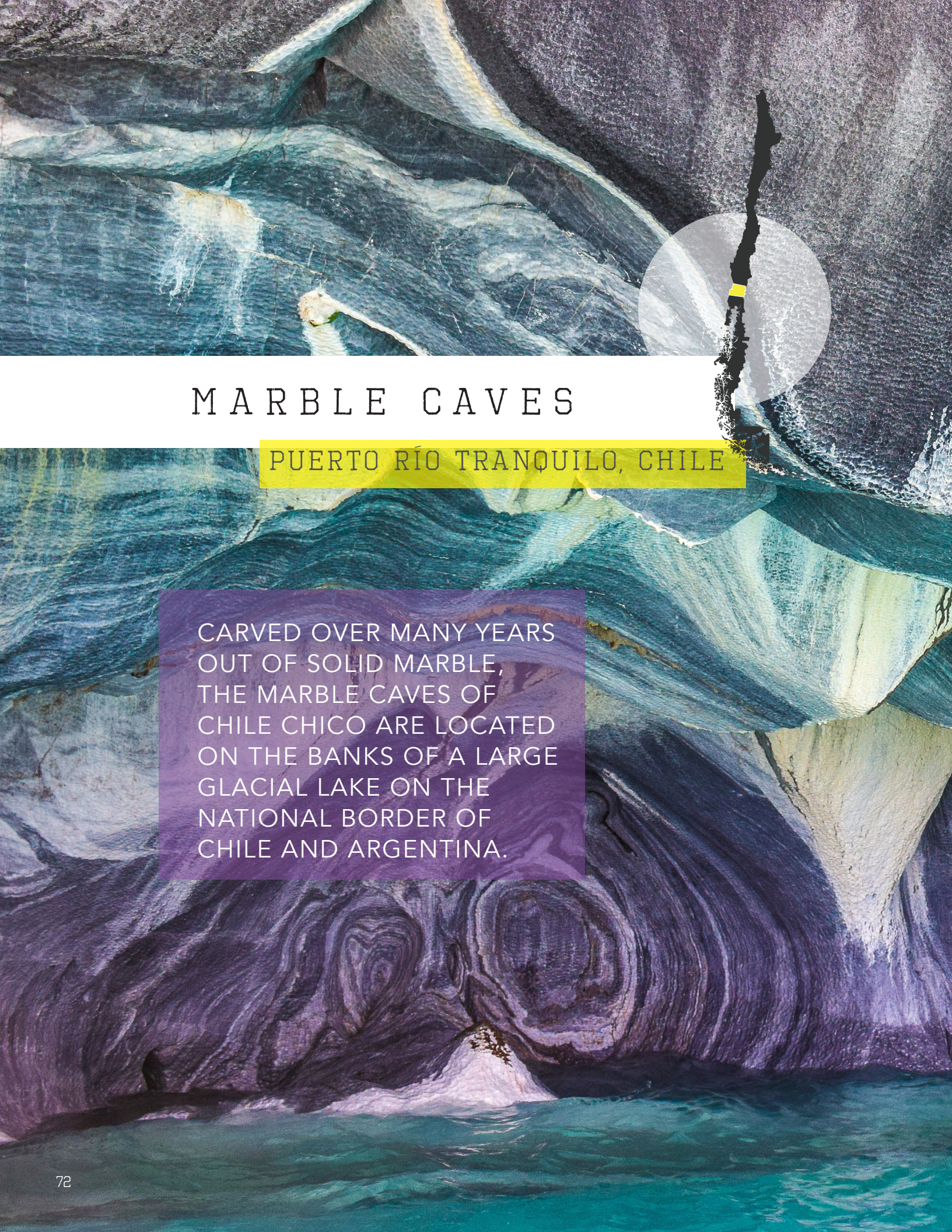
THE CAVE OF CRYSTALS

NAICA MINE, CHIHUAHUA, MEXICO

SOME OF THE LARGEST NATURAL CRYSTALS EVER DISCOVERED WERE FOUND UNDERGROUND IN THE NAICA MINE, MEXICO, but visiting the formations is not possible for just anybody. The only way to access the caverns full of selenite, a type of gypsum crystal, is by pumping out thousands of gallons of steamy, geothermally heated water that normally fills the caverns. With temperatures reaching a sweltering 57.2 °C (135 °F), visits of more than a just a few minutes require specialized protective suits with their own air supply.



Scientists believe the heated mineral-rich waters create a unique environment optimized for selenite crystal growth, and most of the discovered caverns within Naica Mine have been flooded once again to protect this amazing geological discovery.



MARBLE CAVES

PUERTO RÍO TRANQUILO, CHILE

CARVED OVER MANY YEARS
OUT OF SOLID MARBLE,
THE MARBLE CAVES OF
CHILE CHICO ARE LOCATED
ON THE BANKS OF A LARGE
GLACIAL LAKE ON THE
NATIONAL BORDER OF
CHILE AND ARGENTINA.



The sea, or lake, caves seem to change color as water conditions change throughout the year.

The swirling patterns in the marble and the crystal-clear blue water make these caves seem like something you would see on another planet. The spectacular formations are only accessible by boat and require a guide to find them hidden in the rocky banks of the lake.

CAVES:

» THE UNDERGROUND WILDERNESS



Stepping into a cave is like entering an unfamiliar world. These majestic underground spaces are full of breathtaking sights, from columns of glowing ice and fantastic rock formations to vast networks of underwater caverns. In this book you'll learn about different types of caves and the strange and beautiful creatures that live inside them as well as how to safely and responsibly explore the subterranean world. Featuring the stunning photography of Adam Haydock and Brandon Kowallis, *Caves: The Underground Wilderness* will inspire a new generation to love and respect nature's buried treasures.

