

The Cactus Hunters

The Cactus Hunters

DESIRE AND EXTINCTION IN THE
ILLICIT SUCCULENT TRADE

JARED D. MARGULIES



UNIVERSITY OF MINNESOTA PRESS
MINNEAPOLIS • LONDON

Cover design by Catherine Casalino

Cover art: The Natural History Museum / Alamy Stock Photo

Cover font: Diablitos, by Pablo A. Medina, based on *fileteado*, an Argentinian stylized lettering with floral ornamentation.

Portions of chapters 4 and 8 are adapted from “A Political Ecology of Desire: Between Extinction, Anxiety, and Flourishing,” *Environmental Humanities* 14, no. 2: 241–64; copyright 2022, Jared Margulies; all rights reserved; republished by permission of the author, <http://www.dukeupress.edu/>. Portions of chapter 6 are adapted from “Korean ‘Housewives’ and ‘Hipsters’ Are Not Driving a New Illicit Plant Trade: Complicating Consumer Motivations behind an Emergent Wildlife Trade in *Dudleya farinose*,” *Frontiers in Ecology and Evolution* 8: 604921. doi:10.3389/fevo.2020.604921; copyright 2020, Jared Margulies; all rights reserved; republished by permission of the author.

Excerpts from Alfred Lau’s “Discovery at a Virgin Outpost” were originally published in *Cactus and Succulent Journal* 52, no. 5 (1980): 238–40; used with permission.

All photographs and illustrations, unless otherwise specified, are by the author.

Copyright 2023 by Jared D. Margulies

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher.

Published by the University of Minnesota Press

111 Third Avenue South, Suite 290

Minneapolis, MN 55401–2520

<http://www.upress.umn.edu>

ISBN 978-1-5179-1398-4 (hc)

ISBN 978-1-5179-1399-1 (pb)

A Cataloging-in-Publication record for this book is available from the Library of Congress.

Printed in the United States of America on acid-free paper

The University of Minnesota is an equal-opportunity educator and employer.

32 31 30 29 28 27 26 25 24 23 10 9 8 7 6 5 4 3 2 1

For my parents and Heeyoung

*We have not yet lifted our eyes to the vaster horizons
before us. We have not faced the almost terrifying
challenge of the Plant.*

—Ursula K. Le Guin, *The Author of Acacia Seeds*

*There is a lot to say on the psychology of collecting.
I am something of a collector myself.*

—Jacques Lacan, *The Ethics of Psychoanalysis*

Contents

Preface	xi
Abbreviations	xvii
Introduction: Cactus, Be My Desire	1
1. On Collecting and Caring for Cacti	27
2. Illicit Encounters with Succulent Collectors	69
3. Between the Iron Curtain and the Glass House	109
4. Confronting Extinction Anxiety in Cactus Country ..	155
5. A New Illicit Trade	189
6. Learning to Know a Plant	223
7. Disentangling Succulent Desires	257
8. For a Flourishing Geography of Succulent Life	307
Acknowledgments	327
Additional Resources	335
Notes	337
Index	371

Preface

I was supposed to be studying the illegal trade in tiger bones. It was summer 2017, and I was preparing to move to the United Kingdom from Baltimore, Maryland, where I had finished my PhD, focused on wildlife conservation politics in South India. My new position was part of a research project examining the integration of biodiversity conservation and security through the illegal wildlife trade (IWT). Shortly after my dissertation defense, I came across an article about saguaro rustling and other cactus poaching in the U.S. Southwest that piqued my interest. *Strange*, I remember thinking.

Maybe if I hadn't been preoccupied by the health of a cactus sitting on my windowsill, this would have been the extent of my foray into the world of cactus and succulent plant trade and theft. Instead, something gripped me in this story of stolen saguaros and in the many articles I soon read about other kinds of cactus poaching. I began to wonder more about the cactus on my windowsill, how little I knew about it as a species, and how it came to be here. Something left me desiring to know more. Maybe things operating in the realm of the unconscious to which I do not have access could explain why I would choose to spend the next six years obsessively thinking about what makes succulents desirable and, in turn, how those desires reshape species futures. The mystery persists. But what is clear is that the work you hold in your hands is the product of embracing the throes of desire and others' desires becoming, in many ways, my own.

Preface



Two years later, I was in rural Czechia in the greenhouse of a man many have dubbed one of the most infamous cactus smugglers in the world. He is also considered one of the most knowledgeable experts on cacti in Europe. On a wet and gray fall day, he showed me thousands of propagated offspring of a Mexican cactus species so new to botanical knowledge that it was not yet included on Mexico's endangered species list. The plant, *Mammillaria bertholdii*, though familiar to serious cactus collectors, remains otherwise largely unknown. In Mexico, it is a naturally rare species with an exceedingly small habitat range in Oaxaca. There is no legal trade in this species (for reasons I describe later), and yet, at cactus and succulent expos around the world, it has been available for sale for years. This is a trade occurring, not in the shadowy corners of some black market, but out in the open, in person and online.

M. bertholdii is a strange-looking cactus. It features unusual spines that look like little, feathery amoebas (Figure 1). And it has a deep taproot, much larger than its tiny, aboveground stem. This water-storing taproot permits it to survive prolonged periods without rain in the Oaxacan drylands. It was officially "discovered" by the self-described German "cactoexplorer" Andreas Berthold in 2013. It was formally described in the botanical literature by another German, named Thomas Linzen.

Despite its status as new to science, seeds and small grafted stock of these rare plants were almost immediately available for sale online and at major cactus conventions in Europe. Given the species' relatively slow growth, individual plants and seeds were certainly smuggled out of Mexico years before it was ever described. Several years ago, grafted specimens of *M. bertholdii* purportedly sold for more than a thousand dollars per individual plant. The first seeds were available for approximately fifty dollars per packet of ten seeds from Czechia, quite likely offered by the man with whom



Figure 1. A grafted *Mammillaria bertholdii* held in the hand of a Czech cactus collector. The species' unusual pectinate spines resemble the teeth of a comb. Wild-growing plants of the species feature much less pronounced tubercles, where the plant instead lies nearly flat against the ground.

I was then standing. According to scientists and amateur botanists, the greatest threat the species faces is from poaching for international illegal trade.

Within the collector community, *M. bertholdii* quickly became a sensation. For the desirous collector, it checked all the boxes: new, rare in the wild, unusual shape, and featuring a massive magenta flower. But within a matter of years, the price fell to five to twenty-five dollars for grafted plants. The people who first stole *M. bertholdii* out of Mexico tell me they are responsible for this rapid price crash—that by providing cultivated plants and seed for the market, they were averting a rush of collectors seeking out wild-growing plants in Oaxaca. But all this was illegal and took place to the consternation of Mexican authorities. “If not for us,

Preface

this plant might already be extinct in the wild, and yet we are made out as criminals,” the Czech cactus dealer declared.

One collector would say later while discussing *M. bertholdii*, “Most of us will be quite happy with a cultured or grafted plant. But there will always be those who want the *real* thing.” The research behind this book sets off from this mystery: why would succulent collectors, people who are so passionate about these plants—rare, endangered, or otherwise—seemingly love them into extinction through illicit acts? What propels the fantasy of searching for “the *real* thing,” and at what costs? The unconscious is a space of play between dynamic, interacting, and often contradictory thoughts, ideas, and forces. The same proved true in researching and writing the multispecies stories that follow. They are full of obsessive characters, beguiling emotions, and complex alliances. “It is crazy to blame enthusiasts as people who don’t love nature enough; portraying them as smugglers doesn’t capture our obsession with nature,” the Czech cactus smuggler later would tell me. In time I would come to learn something about this obsession: I was immune neither to the transference of these desires nor from developing caring relations with the collectors, botanists, and conservationists who permitted me to learn from them. But the smuggler also admitted that this obsession has at times proved disastrous for species that became objects of desire. “The collector community needs to be cultivated,” he said with a wry smile.

This book is also a work of cultivation, a guide to collisions of botany, care, conservation, and desire as an effort to develop new insights about a serious set of problems affecting species around the world impacted by illicit and illegal trade. An engagement with the unconscious would prove vital to my efforts to explore how desire structures people–plant relations. In turning to matters of the unconscious, emotion, and desire, the text may strike some readers as surprisingly personal for a book on plant trade and trafficking. I stand by this choice to emphasize narrative, emotion,

Preface

ambivalence, and my own subjectivity over distance and the performance of expert authority in the chapters that follow. I cannot entirely disentangle the succulent desires and emotional bonds I detail in the pages that follow from my own. I trust in this choice as a more helpful if still fallible and unfinished guide as together we explore this succulent subject.¹

Abbreviations

- ABS** access and benefit sharing
- AOPK** Agentura Ochrany Přírody a Krajiny (Agency for Nature and Landscape Conservation) (Czechia)
- BCSS** British Cactus and Succulent Society
- CBD** Convention on Biological Diversity
- CDFW** California Department of Fish and Wildlife
- CITES** Convention on International Trade in Endangered Species of Wild Fauna and Flora
- ČIŽP** Česká Inspekce Životního Prostředí (Czech Environmental Inspectorate)
- CNPS** California Native Plant Society
- CONABIO** Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (National Commission for the Knowledge and Use of Biodiversity) (Mexico)
- CONANP** Comisión Nacional de Áreas Naturales Protegidas (National Commission of Natural Protected Areas) (Mexico)
- ESA** U.S. Endangered Species Act
- GARES** Gyeonggido Cactus and Succulent Research Institute (South Korea)

Abbreviations

IUCN International Union for Conservation of Nature

IWT illegal wildlife trade

PROFEPA Procuraduría Federal de Protección al Ambiente
(Attorney General's Office for Environmental Protection)
(Mexico)

SČSPKS Společnost Českých a Slovenských Pěstitelů Kaktusů
a Sukulentů (Society of Czech and Slovak Cactus and Succulent
Growers)

UNTOC United Nations Convention against Transnational
Organized Crime

USDA U.S. Department of Agriculture

Introduction

Cactus, Be My Desire

The truth is cacti deserve their special cult, if only because they are mysterious.

—Karel Čapek, *The Gardener's Year*

Across sandstone flats near the side of a highway in Bahia, Brazil, is a sea of tiny cacti. A Candomblé altar is tucked into a thicket of scrub nearby—an assembly of gourd vessels, candles, and coin offerings. Dusk approaches as I crouch on a pockmarked slab of rock to look at scores of little cacti beneath my feet. My eye is drawn toward one. My traveling companions, a small group of mostly European, self-described “cactoeplorers,” tell me this cactus the circumference of a dime is called *Discocactus zehntneri* subspecies *boomianus*. It’s a long name for a very small plant. It isn’t particularly distinct from other species in the genus I have seen, whose name comes from the Greek for “disc-cactus” owing to their flattened, round form. The species is named for Leo Zehntner, a Swiss botanist who spent several years living in Bahia. The subspecies name recognizes the Dutch botanist Boudewijn Karel Boom.

Many cacti are named like this, telling us more about the desires of European or American men than the plant as it is or the places it grows. The cactus before me is lime green and encased in a dense mat of long, flexible spines. Although it looks thirsty and

Introduction

sun baked, I am aware of just how dazzling these plants can become when living under less strenuous conditions. As a genus, *Discocactus* relies on nocturnal pollinators and put out huge, stunning white blooms at night to attract them. Even more beautiful than their flowers, I'd argue, are their fragrances. Their scents are as rich and intoxicating as a gardenia or coffee blossom, as enveloping as perfume. But in cultivation, *Discocactus* species are difficult to keep alive, marking them as both rarities and prized by collectors. Collectors who can bring *Discocactus* species into flower are recognized by their peers as skillful caretakers.

Without warning, I am enticed by this plant beneath my feet. In a matter of seconds, I could uproot it with a penknife or even a coin. Surrounded by a population of plants in large clumps, I imagine plucking it from the rock, as if the cactus would prefer to slip into my shirt pocket. The state of the vegetation suggests it has hardly rained in months; a day or two left on bare roots in international transit likely wouldn't do this cactus much more harm. Adapted for survival in an extreme climate, the plant's *lootability* has evolved.

People the world over utilize and consume countless species as part of everyday life. But on the much narrower list of species that people desire as living companions—dogs and cats, monstera and aloes, birds and reptiles—few species are so easy to illicitly grasp, so lootable, as many cactus and succulent plants. Imagine the effort required to covertly steal a hundred-year-old oak tree with the intent to keep it alive rather than turn it into a pile of timber.¹ In contrast, a saguaro of the same age—that towering icon of the Sonoran Desert that can reach as much as fifty feet in height and weigh upward of six tons—is comparatively easier to pry from the ground. Its shallow roots, just inches deep yet radiating as far as the saguaro is tall, have evolved to quickly soak up summer monsoon rains, water that in turn is stored in the fleshy tissue of the plant's

Introduction

massive stem, which has evolved to swell in an accordion-like fashion. These pleats will contract again over time as the stored water is slowly used up in periods without rain. This adaptation to life in an extreme climate also facilitates the saguaro's extraction from the ground with just a shovel or two, a winch, and pickup truck (and a lot of burlap for protection).

Scientists include approximately twelve thousand species of plants in the category of "succulents."² Succulents are not a formal plant group, however, and succulents are found across a wide range of taxonomic orders, meaning the adaptation for succulent living evolved independently across the vegetal tree of life.³ Though disagreement exists, we can say a succulent is a plant that possesses specialized tissue that offers temporary storage of water, enabling the plant to be "temporarily independent" from an external water supply and maintain metabolic activity when roots are no longer able to obtain water.⁴ So, although all cacti fit this general succulent description, not all succulents are cacti.

Between fifteen hundred and two thousand agreed-upon species fall within the Cactaceae family, though the exact number varies between sources. Whereas succulence is a descriptor of a kind of vegetal adaptation, cacti are part of a family with a shared evolutionary history. Nearly all cacti have spines (not thorns), which are highly modified leaves that evolved to help the plant reduce water loss through evapotranspiration. These spines both protect the plant from herbivory and also help with water retention by reducing airflow around the plant and providing shade. Another important feature of cactus plants is what is called an areole, a kind of modified bud where both spines and flowers emerge from the plant. Areoles often look like little fuzzy buttons or dots evenly spaced along a cactus stem. In the absence of true leaves, the photosynthetic part of the cactus plant is the stem (Figure 2). Despite their common ancestry, cacti compose an extremely diverse family that continues to radiate and evolve. Some, like the saguaro, are

Introduction

measured in tons and meters, whereas other cacti may be decades old and never grow larger than a thumbnail. Some are exceedingly hairy, others are wooly, while others are smooth, tropical epiphytes. Some are paddle shaped, while others grow into sprawling clumps. Some cacti spend nearly their entire lives underground, and some cacti don't really look like cacti at all.⁵

Despite this great diversity of form, shape, and size, the lootability of succulents denotes how so many cacti and other succulents have evolved to living in extreme environments that enlure with human drives to obtain them. The live and illegal shipment of a baby tiger or parrot, whose value for an exotic pet keeper is in the animal's living status, is not so amenable to the kind of transit to which many succulents are subjected.⁶ The lootability of succulent life tells us something about how vegetal adaptive strategies for survival might *grip* human desires. Lootability signals not only the capacity of certain succulents to survive theft but how the capacity to do so may constitute part of their enticement as objects of desire and the pleasure found in the taking.

The saguaro pried from the ground resonates with my overall approach to thinking with desire and human-plant relations in what follows: as an interactive entanglement of the human psyche in and through the environment and other organisms with great consequence for an array of species. This approach follows from what Anna Secor and Virginia Blum describe as a "psychotopological" approach to the psyche, where "material spaces and psychic processes shape one another."⁷ Topology, in French psychoanalyst Jacques Lacan's terms, is the structure of the unconscious: a qualitative geometry linking the unconscious with the subject's world, in which the physical space and literal distances between places, species, and collections (for instance) do not matter so much as the *relation* of connections that bind them. Concerning ourselves with what enjoins the psyche with the environment is an encounter with Lacan's idea of *extimacy*. Extimacy enjoins the exterior with

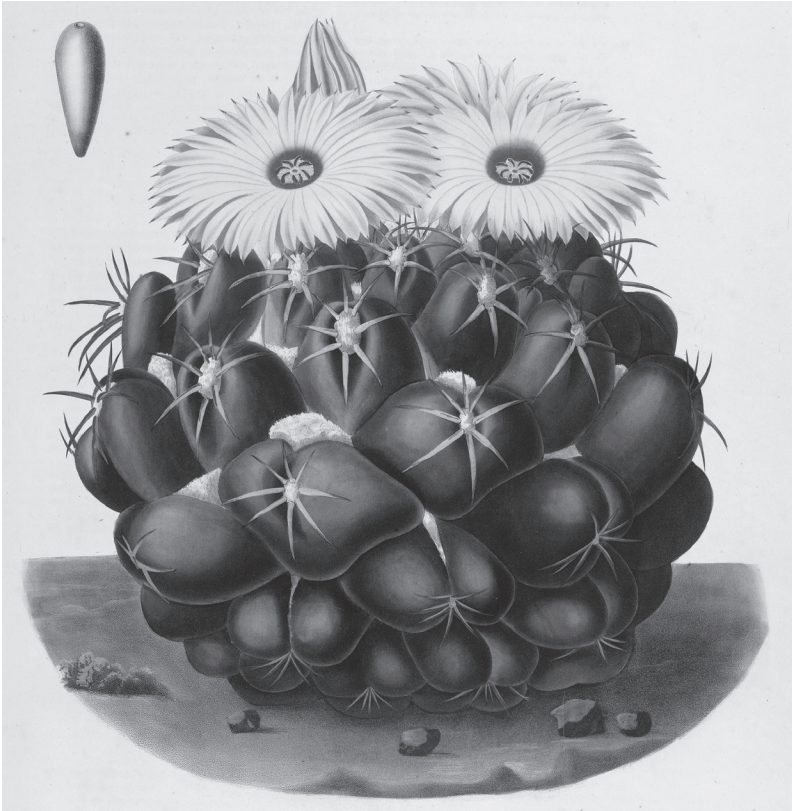


Figure 2. Botanical illustration of *Mammillaria elephantidens* (today considered *Coryphantha elephantidens*) from Charles Lemaire’s *Iconographie descriptive des cactées, ou, Essais systématiques et raisonnés sur l’histoire naturelle, la classification et la culture des plantes de cette famille* (Illustrations from a descriptive iconography of cacti) (Paris: H. Cousin, 1841). In addition to the beautiful pale pink flowers, the image displays several of the key characteristics of members of the cactus family: spines emerging from the areole and cactus “wool” in the spaces between the plant’s tubercles—the nodes or protrusions of the stem giving the plant its sculptural-like shape. The species gets its name from its imposing, “elephant tooth”-like spines. Illustration by Charles Lemaire. Courtesy the Biodiversity Heritage Library and Missouri Botanical Garden, Peter H. Raven Library.

Introduction

intimacy; it means that the “exterior” is within us, and it also names the spatiality of the unconscious as expressed before us.⁸ Thinking the unconscious with the cactus through extimacy helps give meaning to seeing the unconscious as in front of us—not hidden away from view but expressed in and through the world. To attend to where and how a cactus becomes affixed in the psychotopology of the unconscious is to put faith in desire as a mode of inquiry.

Of course, the stolen saguaro I describe does not live alone, nor only in the mind as a desirous fantasy, and it is just as likely it will die months later without significant care. Every story of illicit succulent life contains the storied lives of countless others. Saguaros evolved over millions of years with two pollinating bat species that rely on the saguaro’s nectar for survival, while the gilded flicker and Gila woodpecker make their homes inside the saguaro’s flesh and woody ribs. In time, owls and finches will move into these abandoned nests, while hawks hunt from the crooks of the saguaro’s great arms and nest there as well. Dozens of species and human cultures rely on their large fruits, which split open to reveal thousands of protein-rich seeds. For the Tohono O’odham, Yaqui, Piipaash, and other O’odham nations that call the Sonoran Desert home, saguaros command deep reverence (for the Tohono O’odham, as literal kin), alongside providing an important source of nutrition. If the saguaro were eventually looted to extinction (an unlikely scenario, thankfully), it would doubtfully leave this earth alone, its absence upending reciprocal relations with other species millennia in the making. Today, however, climate change may pose a far greater threat to the flourishing of the species.

But just about any other cactus is easier to thief than a saguaro. And back in Bahia, I contemplated the consequences of cactus theft. Would it be so wrong if this tiny *Discocactus* were to live out its life in a pot elsewhere, free from the stresses of extreme drought? The cactus was surrounded by the dead remains of others, lives cut short by a particularly hot and dry season and

Introduction

worsening droughts attributed to climate change. In the end, of course, I did not steal it. Aside from Brazilian law, the International Union for Conservation of Nature (IUCN) lists this species as “near threatened” on the Red List, the most comprehensive global assessment tool determining the degree of endangerment for nearly 150,000 species. But experts assessing the species note that subspecies like *D. zehntneri* subspecies *boomianus*, restricted to a few small populations, are much more vulnerable to extinction than the species as a whole. The entire genus of *Discocactus* is also listed on the appendix of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, or CITES for short. CITES is a multilateral convention regulating the trade in wild species either currently or deemed to be potentially impacted by international trade. According to its website, the primary aim of CITES is “to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species.” Today, more than thirty-seven thousand species of plants and animals are listed by CITES, and most of these are plants (and most of these are orchids). As a CITES Appendix I genus—the strictest CITES appendix—the international trade in any *Discocactus* species is prohibited. Not only would taking and transporting this cactus abroad have been ethically wrong—which is another way to say illicit—it would have also been illegal.

Some people might be said to love cacti and succulents to death. They are some of the most heavily threatened species among internationally traded plants for ornamental collection. A variety of species in the *Dudleya*, *Aztekium*, and *Ariocarpus* genera in North America, alongside the Conophytum family and *Lithops* genus in southern Africa (to name just a few examples), currently face intense illegal collecting pressure, and some face pressing extinction concerns. Over 75 percent of all cacti are experiencing population declines globally, and about one-third of all approximately fifteen hundred cactus species are threatened with extinction. *This makes*

Introduction

cacti one of the most threatened taxa of life on the planet—inclusive of animals. Nearly half of these threatened species are harvested for horticulture and private ornamental collections.⁹ Climate change paints an even bleaker outlook for many of these species. The world regions with high succulent biodiversity and those expected to be most vulnerable to the impacts of climate change map tightly to one another.¹⁰ For all the global recognition succulents receive as charismatic species, many face very precarious futures.

I smiled leaving the *Discocactus* out on the rocks that evening. But I wrote later in my notes about a feeling of creeping unease. On one hand, I felt immense pleasure in recognizing that increasing encounters had taught me to be affected by these wonderful plants. On the other, I could not shake the sense that this desire to possess was rooted in something else, something with both an uneasy history and a deeper urging predating my experiences in that place.¹¹ A new link in the “psychotopology” connecting me to place and species in a moment in time was forged; I was marked by the cactus and yet urged on by a desirous repetition for something *else*. Walking away, I was left with the firm conviction that had I taken the cactus, my desire would have only pointed toward pursuing another. The drive for a kind of satisfaction, while perhaps temporarily pleasing or fulfilling, would wither, sending me to seek out another. In this context, as rewarding as a work like Michael Pollan’s *The Botany of Desire* is for thinking about the emergent passions of people for plants, Pollan does not go far enough in asking why people plant apple trees or go bonkers for tulips. This is because he does not ask what makes desire possible—in other words, how one becomes a desiring subject and keeps on desiring more.¹²

Cosmopolitan Cacti and Other Succulent Stories

The roots of plants belie their tendency to move. Though many of the plants featured in this book are exceptional for their highly restricted habitat ranges—a hillside in Brazil, a single valley in Oaxaca, Mexico, or a small island in the Pacific—they also lead cosmopolitan lives. Consider a cactus unique for rooting to the branches of trees in the tropical forests of the Mata Atlântica in southeastern Brazil. In contrast with the humanlike silhouette of the saguaro, this cactus is all lush and limbs, a toppling bouquet of flat, segmented stems with an abundance of pink and white flowers. The species is formally classified as endangered by conservation scientists, confined to a small geographic region fragmented by the megacities of São Paulo and Rio de Janeiro. It is also threatened by people who wrest it, plant by plant, for its ornamental value. But consider a million genetically identical clones whose origins are rooted in this species, circulating in barcoded plastic pots around the world. Maybe one is even sitting nearby as you read this. It is arguably one of the most “successful” succulents on the planet, if success is measured in abundance of individuals alone. You might know this plant as the Christmas or Thanksgiving cactus, favored for its brightly colored flowers that bloom in late autumn and winter in the northern hemisphere, compared to April or May in Brazil.

Veering toward extinction and in bloom the world over—this is one of many things that make the lives of plants good to think with; their roots and shoots extend in surprising directions. In the process, they connect seemingly disparate geographies. But some would argue that the species known to scientists as *Schlumbergera orssichiana* has nothing to do with the Christmas cactus you bought at the supermarket, that the latter is only the commodified, ghostlike apparition of *S. orssichiana*. Nearly all commercially available Christmas cacti are hybrid crosses of multiple *Schlumbergera*

Introduction

species; really, your plant is the composition of multiple species achieved through thousands of genetic crosses to coax out desirable traits. A veritable monstrosity of managed species comingling is sitting on your windowsill. Plant breeders and cultivators might say that their hybrids hold no relation whatsoever to wild *Schlumbergera* species. Instead, I would suggest that these plants *are* related, even if the biological and social ties that connect them grow more distant year by year.

Attention to relation and difference in excavating the histories that bind these plants is an important corrective to conventional natural histories. It creates more space for the human within non-human stories, while allowing for learning about how the nonhuman world both affects and transforms the human.¹³ It presents a prompting to think carefully about “more-than-human” care, a topic that has received notable attention and theorization in recent years.¹⁴ Connecting matters of care with commodification is to stay close to the tensions they express, as opportunities to stretch and probe their meaning. I extend this dialectical approach to thinking about care for cacti and other succulents in this book to make a similar—though perhaps more controversial—argument about species collection and wildlife conservation. Rather than approaching them as antithetical practices, I argue they should be understood as rooted in shared human experiences, desires, fantasies, and anxieties that continue to shape the fate of much of the nonhuman world. These subjects touch on divergent and disparate fields of study from psychoanalysis to botany to political ecology. I read, think, and do translational work across these fields to say something about the connections between them. I did not seek out this subject because I was searching for a topic that might bring these areas of intellectual thought together. This is anything but a story of a hammer searching for a nail. Instead, this book exemplifies the work of desire in the research creation process: I became transfixed by the succulent subject; I was in the throes of its desire

as my own.¹⁵ Through this work, I found that the succulent subject is not just good to think with as a model transdisciplinary subject but that the succulent subject demands it.

A Political Ecology of Desire

This book is a political ecology of desire, and as such, I conceptualize the *production of desire* as a framework for psychoanalytic political ecologies. This means that an analysis of the political economy of environmental change is aided through turning to the unconscious and what propels the desiring subject forward in their search for satisfaction. The production of desire names how political economy shapes and adheres to psychic processes, and vice versa, with a recognition that doing so entails transformations of the living world with more-than-human (and psychic) consequence. Desire is not a one-way street; it works in multiple (topological) directions, between the conscious and unconscious, as well as in the “interior” of the self in relation to its expression in the wider world and the chains of signification through which unconscious thoughts are entwined. Our desires are never ours alone, but neither do desires adhere to just any random “object.” Desire emerges between subject and object, but this does not mean we must deny the object of active capacity to work on us as well. The title *The Cactus Hunters* speaks to the aching search and yearnings expressed by all manner of subjects in this book for what they suppose they desire, ranging from cactus smugglers to law enforcement agents to passionate conservationists. Although academic debates rage on about whether nonhumans can or should be understood to “act” or have “agency” in coproducing the world, it is quite clear to me that they do. As unlikely a source as it might first seem, psychoanalysis offers some surprising insights into how it is that these “objects” shape desires in ways that can profoundly transform the world.

Broadly speaking, political ecology is the practice of studying

Introduction

and organizing around the production of environmental inequalities, human (in)access to natural resources, and the intersection of social justice and environmental concerns with close attention to questions of power and economy.¹⁶ In joining “production” with desire, I am thinking about desire as an active force working in a world transformed by capitalist world ecologies and how central desire is to the reproduction of capitalism and the commodity form.¹⁷ In the chapters that follow, I extend thinking about the place of desire in shaping environments and other species in a more-than-human world. I do so by bridging theories of lively or living capital (the commodified forms of these living plants) with matters of more-than-human care and key Lacanian psychoanalytic theories of desire, drives, anxiety, and fantasy.¹⁸ In building my arguments, I draw on diverse scholarly works ranging from psychoanalytic geographies to more-than-human geographies, political ecologies of wildlife trade, and feminist theories of care.

Our social worlds have always been *more-than-human*. This phrasing is not a reminder that we inhabit an earth full of a diversity of life (there are simpler ways to say this) but that the human is not composed of the human alone.¹⁹ In this vein of thinking, I pursue “arts of noticing” to make sense of the tangled connections we share with a dizzying array of life-forms, connections that are integral to composing what we call the human.²⁰ This shift in social research away from the atomistic human subject is an effort to decenter the fixity of humans as the only meaningful actors in social life. A turn to psychoanalytic theory may therefore strike some readers as strange, given its preoccupation with the distinctively human unconscious. To the contrary, I suggest that considering how “entangled” social research has become, it seems stranger still how comparatively little of the more-than-human literature engages with psychoanalytic thought.²¹ It is as if our unconscious desires do not matter in composing the world as we encounter it, full of nonhuman life. If “human nature is an interspecies re-

Introduction

relationship,” as Anna Tsing writes, why have scholars invested in asserting the presences of the many other species that compose this relationship ignored the material import of the unconscious as part of that story?²² In the words of Donna Haraway, “we are in a knot of species coshaping one another in layers of reciprocating complexity all the way down.”²³ But our unconscious selves aren’t just along for this ride; they mediate the very meaning of the journey “all the way down.”

With desire as my compass, I followed species caught up in illegal trades around the world and sought to understand the social, political, and economic dynamics and consequences of these succulent circulations. At the same time, I take seriously the charge to center plants as active subjects in the shaping of trades I followed. But what I found in granting attention to the material and unique constitutional capacities of succulents exceeded the domain of the vegetal world alone; I also encountered the ebb and flow of the unconscious with the world, the space of interactivity where mind and matter meet—life as a process and an unfolding event.

The Succulent Subject

Psychoanalytic geography has firmly established itself as both a vibrant subfield of geography and also one increasingly in conversation with other related fields, including political ecology.²⁴ There is a growing body of scholarship on how Lacanian psychoanalysis offers a great deal to advancing contemporary discussions of the environment.²⁵ My research is supported by this robust scaffolding linking the insights of psychoanalysis to how and why humans interact in their environments, with consequences for the ecologies and spaces we inhabit.

During my research with cactus collectors, one research participant described his community as “plant-people.” One way to think about this book is as a dedication to that hyphen: what both

Introduction

connects and separates the collector from the plants that serve as objects of desire. There is an important distinction between the “object” we speak of in collection and the “object” in psychoanalysis, the latter of which, among other things, is “a point of imaginary fixation which gives satisfaction to a drive.”²⁶ To understand what distinguishes these sorts of objects from one another, or how a cactus can become imbued with significations of other sorts of psychoanalytic objects, we need to engage with some key ideas of Lacanian psychoanalysis that will surface throughout the book.

The desiring subject in Lacanian thought is a split subject, brought into being through the world of language. Thinking the hyphen in *plant-people* with Lacan, we can think of the “succulent subject” as a split subject as well, one where the “split” leaves room for fantasies propelling the subject’s drives toward other species as objects of desire. Fantasy, in Lacan’s words, “is the support of desire.”²⁷ Through fantasy, we recognize ourselves as subjects of lack, subjects forever obliged to seek out what Lacan calls “the Thing” (*das Ding*) we suppose is lacking within us. The Thing is the void that is at once exterior to us yet sits at the center of the subject’s sense of self; it is this extimacy that centers our very being. Like many of Lacan’s insights, it is a paradoxical and challenging one: it is this Thing’s absence that is constitutive of us, yet we recognize it only through the sense of lack in its missing.²⁸ This lack keeps us always on the move, searching for desirable “objects” that might fill the void, as well as propelling us ever forward in search of the fantasy of imagined wholeness we see as lost in the very moment we emerged as desiring subjects (what Lacan describes as alienation). But as a fantasy, this lack can never be truly satisfied—there is no cactus, no person, no “object,” that can substitute for the absence of the Thing.

There are, however, objects that become imbued with the aura of the Thing. At times, then, real “objects” in the world may take on greater psychoanalytic heft as objects of desire through fantasies

Introduction

that place them closer to the Thing. And, as objects of desire (and through what we will encounter later as Lacan's *objet a*), they keep us stubbornly on the track of desire as a perpetual search. As Mari Ruti summarizes, "as a result, we spend our lives trying to find substitutes for what we imagine having lost; we stuff one object of desire (*objet a*) after another into the void . . . in the hope that one day we can heal our wound (undo our alienation)."29 To this end, certain (if at times, improbable) material objects in the world—a cactus, for instance—can come to matter in unconscious registers in very significant ways.

The drive I describe that encircles the absent Thing is not equivalent to desire, however, and I will return to the drives in a moment, as they are also important to how I came to understand collector practices with consequence for succulent plants. But returning first to desire, desire signals the quest for the fantasy of impossible unification of the subject with what they suppose has been lost in the "split" as they enter the symbolic realm. This separation for Lacan signifies an *ontological* lack, a separation that occurs as infants and structures being itself.³⁰ Lacan further recognizes this entrance into the symbolic order through the emergence of language. Once a person enters the symbolic order of language, things are never again as they were. In speaking, as much as words stand in for real-world things—the word *cactus* signifies what we imagine cactus plants to be—the things themselves become signifiers; they are imbued with other memories, yearnings, and fantasies. Everything is in part constituted by what is *not* there. As "real" as the real world remains, we also live within a world that is forever mediated by signification. This is why Lacan insists that the unconscious is "structured like a language."³¹ As Todd McGowan describes, "the subject in the world of signification can never just eat an apple but eats instead what 'keeps the doctor away,' what is juicy and delicious, or what connotes original sin. . . . This excess attached to the apple produces a satisfaction for the subject that an

Introduction

apple by itself—an apple that isn't an 'apple'—can never provide for an animal that eats it."³² At the same time, the "apple" that can never truly satisfy what it seems to promise speaks to desire as the desire for the fantasy of what we suppose the "Other" desires.

The Other is the master signifier of the symbolic order, the figure the subject identifies as social authority, the guide to normative morality, the law, God, and so on. It is through the Other that we encounter our own desires, which is why "our" desires are never "ours" alone.³³ It is for this reason that we have Lacan's famous axiom that "desire is the desire of the Other."³⁴ Subjects become desiring subjects by constantly, unconsciously, aiming for what they suppose the imagined Other desires. As McGowan explains, "we desire what we assume the Other desires because the Other desires it and because we want to attract the desire of the Other. It is in these two senses that our desire is always the desire of the Other."³⁵

But as I said, the work of desire and the drives are not equivalent. As I detail across chapters 1–3, attention to both desire and the drives is important for understanding the repetitive quest of cactus and succulent collectors to pursue "objects" for their collections. In Lacan's formulation, on the other side of desire are the subject's drives, the pursuit of enjoyment through encircling (and never obtaining) the absent Thing. This contrasts with the kind of total satisfaction imagined in desire, which remains forever out of reach in the unattainable "Other" and what we suppose are their desires.³⁶ Desire and drive are related through the subject's quest for enjoyment as they encircle the Thing, on one hand, and the compulsion to constantly seek out what we imagine to be lacking as our desire. "In other words," as Ruti explains, "the gap between the Thing as the (non)object that causes our desire and the objects (*objets a*) that our desire discovers in the world is why we are never entirely satisfied."³⁷ Paul Kingsbury and Steve Pile explain the drives further and point us in the direction of understanding the sorts of pleasure found through them: "the drives derive satisfaction by

Introduction

encircling or missing their object. Thus the drives are associated with activities that are excessive, repetitive, and potentially destructive.”³⁸ They “exert a menacing and constant pressure on the psychoanalytic subject.”³⁹

In constantly failing to reach a totalizing satisfaction, what the subject instead encounters in the “gap” between the Thing and objects of desire is an excessive, painful pleasure, or what remains untranslatable in English as *jouissance*. *Jouissance* is one of Lacan’s most profound insights for psychoanalysis. As Kingsbury writes, “a Lacanian geography shorn of the concept of *jouissance* is as curbed as a Foucauldian geography deprived of the concept of power.”⁴⁰ It is through *jouissance*, this aching kind of pleasure brought about in the failure to obtain satisfaction, that we can see how repetitive failure *is* a kind of pleasure, yet also a pleasure we cannot shake or rid ourselves of entirely. As Joan Copjec clarifies on this repetition, Freud “interprets repetition as the invariable characteristic of the drives that fuel life. The being of the drives, he claims, *is* the compulsion to repeat.”⁴¹ In repetition (and, consequently, the experience of *jouissance*), the drives reveal their primary psychic expression in always aiming without attaining.⁴² *Jouissance* will emerge in this book in various moments, such as “delighting” in the unique yet painful confrontation of species extinction as a singular encounter with rarity (chapter 4) and in a moment of reveling in the unexpected discovery of a cactus thought to be extinct, yet only to recognize that its presence still likely signals species obliteration (chapter 2).

We will also encounter how repetitive behaviors that produce expressions of *jouissance* are perfectly latched on to by capitalism and the commodity form (here in the form of commodified succulents). Capitalism exploits the fantasy of a radically singular satisfaction by introducing objects in the form of desirable commodities that would *appear* to be the one thing that might bring us some satisfaction but always fails to do so. Yet, perversely, this failure of the

Introduction

commodity to deliver total satisfaction is itself a form of *jouissance* and thus enables the repetition of pleasurable failure through the introduction of yet more commodities that might be the one true object of desire but, of course, never are. In this way, capitalism hijacks desire. And so, as good desiring capitalist subjects, we search on and on for the next object to stuff into the void. The insights of McGowan show how a Lacanian psychoanalysis of the commodity form is so necessary for understanding the psychic staying power of capitalism. And, as I detail in chapter 7, the aesthetics of lively succulent commodities can hold powerful sway over the desiring subject and their fantasies.⁴³

Although I have only just introduced in a very cursory way some concepts of Lacanian thought, they help to foreground how the search for enjoyment might then encounter—and at times be enhanced by—the entrance of the illicit as a conceptual framing of norms and behaviors of social acceptability as another set of barriers that delay, and at times amplify, the pleasures of *jouissance*. Whether through the “rogue” status some cactus smugglers “enjoy,” the “naughty” habits of collectors who occasionally “pinch a seed or plant” with little repercussion, or collectors who revel in their self-identification as the “bad boys” of the cactus world, the proximity of the illicit held forth enjoyment for many research participants. As much as this book is focused on the very pressing matter of species extinction and biodiversity loss resulting from illegal trade, I nevertheless encountered a great deal of enjoyment in the process of pursuing this research. These psychoanalytic insights are very important to the story of illicit succulent life.

Set against the backdrop of inequitably experienced planetary-scale challenges like climate change, pervasive pollution, and biodiversity loss, the illicit trade in cactus and succulent plants may seem a very small thing. But lessons of greater scale—about extinction, more-than-human care, and the politics of illegal wildlife trade

Introduction

(IWT)—also come into focus through these plants. My journey into the unconscious and the lives of succulent plants is a traveled one, spanning multispecies ethnographic research across seven countries on four continents, dozens of species of plants, and more than one hundred interviews with law enforcement officers, cactus collectors, botanists, conservationists, commercial succulent dealers, and, yes, succulent poachers. Some of these stories begin in specific locations, while some might begin anywhere, like in the search bar of an internet browser, where cactus seeds from Mexico are sold by Hungarian dealers to buyers in the United Kingdom through a U.S.-based web auction portal. “The unconscious,” Lacan wrote, “is outside,” but crucially, as Kingsbury and Pile explain, “the unconscious is also communicative.”⁴⁴ My commitment in the last instance has always remained with the plants at the heart of



Figure 3. The large budding purple flowers of a *Pilocereus* cactus after a short rain. The genus earns its name for being an especially “hairy” torch cactus. A collector with a camera inspecting plants can be seen in the background.

Introduction

this book and the ecologies they inhabit and that people inhabit with them. “Psychoanalysis affirms a radical incorporation and openness toward the extraordinary diversity that is life and the world.”⁴⁵ Psychoanalytic thought, I think, therefore has a part to play in enacting another politics and ethics rooted in desire, one with great consequence for the more-than-human world.⁴⁶ I hope that in relating my journey into a more succulent life, I successfully convey some of the joys and pleasures I came to know in learning about and traveling with these plants as fellow inhabitants of the earth (Figure 3). Like many stories of small things, in tugging just a little on a thread—or, in this case, a root—entire worlds are revealed.

On Succulents I Did Not Follow

This book is restricted to studying the kinds of human–plant relations that emerge through collection of living ornamental plants and the consequences of these behaviors for the conservation of affected species. These practices are especially informed by Euro-American collecting habits. But of course, many other kinds of succulent consumption, as well as radically different forms of human–plant relations, exist. The Tohono O’odham, for instance, share very different kinds of relations rooted in kinship with saguaro cacti as people than the consumers driving their theft in the Sonoran Desert out of desire to reproduce the desert’s aesthetics in their suburban Phoenix subdivisions. But Indigenous modes of relating to plants like the saguaro are so distinct (and distinctly important) from the kinds of “consumption” and botanical modes of relating found in the world of collection that they exceed the bounds of this work.⁴⁷ I also intentionally do not include the trade in peyote (*Lophophora* species of cacti) in this book for their religious, medicinal, and mind-altering qualities. In a similar register, yet in relation to the theory I primarily deploy, I have had to

Introduction

carefully consider what place a turn to Lacanian psychoanalysis offers to political ecologies of environmental change today. This is even more important as long ignored, silenced, and marginalized voices and perspectives, alongside non-Euro-Western scholarly traditions, are finally moving from positions on the margins of political ecology toward its center, as Farhana Sultana has described.⁴⁸ Yet, in seeking out a body of theory equipped to disentangle succulent desires among passionate collectors, passions that in turn can drive IWT and even species extinctions, I found psychoanalysis to be a powerful form of theorizing well equipped for excavating what lies at the roots of these desires.

While I therefore do not share stories of other forms of succulent “consumption” in this book, the saguaro still serves as a useful warning about the harms both capitalism and state sovereignty can bring to bear on succulent life and the dangers we face in turning to matters of the illegal and illicit without a critical perspective. To counter the problem of saguaro poaching in the Sonoran Desert, the U.S. National Park Service made headlines in 2020 for microchipping saguaros, which have been illegally harvested for the landscape architecture trade for decades.⁴⁹ At the same time this was occurring, the U.S. Department of Homeland Security, ignoring the protestations of the Tohono O’odham Nation and conservation organizations, waived dozens of environmental protection laws to remove saguaros among other protected species to make way for the construction of an extended United States–Mexico border wall.

The saguaro paints a telling diptych of state power that can at once destroy or foster nonhuman life. It is an important reminder that what separates the legal and illegal tells us foremost about the wishes of the state to preserve its power, sovereignty, and economic benefits derived therein. This story also points us toward the important narrative politics of IWT that can be mobilized through species of interest and to great effect. As I turn to in

Introduction

the second half of this book through the story of *Dudleya farinosa*, even the topic of illegal plant trade can become a potent vehicle for reproducing harmful stereotypes and racist tropes that resonate through wildlife consumption practices and conservation, as well as serving as geopolitical fodder that places blame for IWT at the feet of some countries or cultures, while ignoring the same trades happening domestically.

In turning to stories of plants in an illicit key, it is important to avoid the tempting vortex of uncritical thought that presumes that what is necessarily legal is right and what is illegal is wrong. Furthermore, these matters of ethics—as opposed to law—are profoundly shaped by who or what is deemed worthy of care and concern. Even the smallest cactus, as we will see, can entangle an impressive array of actors with their own motivations and desires on either side of the law.

Let Our Roots Shoot Forth!

This book is written in such a way that it grows. I keep this sentiment of global connection, between people, economies, plants, and ecosystems, in mind, as it mirrors my method. Building on methodologies of “follow the thing,” others have pursued the practice of “follow the species” to understand the webs of relations connecting species, geographies, and economies.⁵⁰ I followed a similar path, staying with species (both as an epistemic category and as shorthand for the actual plants they denote) in navigating both licit and illicit global commodity chains. The chapters of the book are broadly structured chronologically, along the same trajectory and timelines of my own learning.

Across the first four chapters of the book, I develop the concept of the production of desire as a way for thinking about the place of desire and the drives in transforming species, ecologies, and environments. Geographically, these chapters tack back and

Introduction

forth between locations in Europe, Brazil, and Mexico. In chapter 1, I orient readers to cultures and psychologies of cactus and succulent collection in the Euro-American tradition, drawing on ethnographic research I conducted as a budding member of a cactus and succulent society. I describe cactus and succulent collecting behaviors and motivations for engaging in these practices. The chapter provides an overview of who cactus and succulent collectors are, why they collect, and how forms of meaning and emotion emerge through caring for plants and other collectors. Chapter 1 also examines both gendered and geographic dimensions of cactus collecting. Continuing to build toward a theory of the production of desire, in chapter 2, I turn to matters of the illegal and illicit more explicitly through my participant observation in a “cactoexploration” trip with passionate collectors in Brazil. I detail by what means cactus and succulent trades register as illicit or illegal. In this chapter, I also confront the place of *jouissance* in collector activities as they seek out plants, as well as my own encounter with the cactus as “sublime object.” Together, these two chapters offer insights about contemporary cactus and succulent collector habits and desires and how they intersect the illicit.

Building from my engagement with the illicit and illegal in chapter 2, in chapter 3, I turn back to Europe to story the emergence of one of the world’s contemporary epicenters of illegal succulent trade. I narrate the history of Alberto Vojtěch Frič, an early Czech cactoexplorer and amateur anthropologist, as a central figure in the history of Czechoslovak cactus collecting as well as a crucial figure in structuring what I describe as the fantasy of the “Robin Hood conservationist” among Czech cactophiles. This historical turn offers an important temporal dimension to my research by considering how mental processes structuring collector behaviors interact with and can be amplified by the past and experiences of trauma. This chapter also describes most clearly the stakes and consequences of certain collecting behaviors and illegal trade practices

Introduction

for rare and endangered species conservation. Taking this theme of conservation and endangerment to its conclusion, in chapter 4, I share the story of a cactus on the literal edge of extinction. Through my encounter with *Arrojadoa maryllanae* on a small mountain in Bahia, Brazil, I explore what underpins anxieties that disable response to extinction's threat. To do so, I present my own self-analysis of extinction anxieties as I encountered them. Anxiety, as we will see, is a force that interrupts the capacity to desire with consequences for enacting pathways out of dismal extinction futures wrought by global capitalism.

Whereas chapters 1–4 move from collection and desire to the edge of extinction through the consequences of capitalist development and collector practices, across the next three chapters, I give in-depth attention to an unfolding illegal international wildlife trade. I closely follow the species of two members of the succulent *Dudleya* genus as they transform from flourishing and lively organisms into illicitly traded global commodities. In chapter 5, I detail the rise of a new illegal trade in the California succulent species *D. farinosa*. Drawing on interviews and investigative research in California, I piece together this emergent trade and its primary actors, and I work to understand what would cause the sudden rise of a new form of IWT in a species that was easily and legally obtainable at the time the illegal trade began. The story of *D. farinosa* becomes an important opportunity to consider how and by what means desires affix to other species and, in this case, with grave consequences. Through *D. farinosa*, I also engage with questions about the structure of illicit commodity chains and networks, drawing on insights from the field of green criminology.

In chapter 6, I stay close to *D. farinosa* and a related species, *D. pachyphytum*, to take seriously the work of learning with plants to examine the import of the unconscious in structuring succulent desires. I draw on archival material and close vegetal observation to argue for how a multispecies research approach demands

Introduction

attending to the living species at the heart of these trades and to understand how the fate of one species could become entwined with another. By steering my research toward both the affinities and differences between these species, I was able to understand what bound disparate geographies between California and Mexico through collector desires, instantiating how the psychotypologies of collectors can produce durable connections linking species, geographies, and trades.

In chapter 7, I conclude the story of this new illegal trade in *Dudleya* by following the species and their illegal trade to South Korea. In turning to South Korean succulents, I engage most directly with the commodification of vegetal life. I do so through attention to the unconscious, economic, and aesthetic processes by which plants are made and unmade in Rosemary-Claire Collard's words as "lively capital" with resulting consequences for plants and people alike.⁵¹ I engage with some of the harmful narrative politics of IWT and critique circulating myths about these trades that reproduce stereotypes of the "Asian super consumer" in IWT. This chapter also examines how cuteness, as a surprisingly powerful aesthetic, further shapes succulent transformations into lively capital. The chapter concludes with a discussion of the role of a single succulent smuggler in profoundly reshaping the trajectories of a number of species.

Synthesizing insights gained from the preceding chapters, chapter 8 develops an extended discussion of species, extinction, and the work of care to consider the stakes for enacting flourishing geographies. Bringing these themes together with desire and the unconscious, I consider the work of excavating the unconscious for enacting flourishing geographies as a horizon of pursuit through the embrace of desire. In concluding the book in chapter 8, I describe how sustaining human-plant bonds through desire can hold promise, rather than only peril, for succulent species futures.