

2009

# The Unbounded Home, Property Values beyond Property Lines

Lee Anne Fennell

Follow this and additional works at: [https://chicagounbound.uchicago.edu/public\\_law\\_and\\_legal\\_theory](https://chicagounbound.uchicago.edu/public_law_and_legal_theory)

 Part of the [Law Commons](#)

Chicago Unbound includes both works in progress and final versions of articles. Please be aware that a more recent version of this article may be available on Chicago Unbound, SSRN or elsewhere.

---

## Recommended Citation

Lee Anne Fennell, "The Unbounded Home, Property Values beyond Property Lines" (University of Chicago Public Law & Legal Theory Working Paper No. 278, 2009).

This Working Paper is brought to you for free and open access by the Working Papers at Chicago Unbound. It has been accepted for inclusion in Public Law and Legal Theory Working Papers by an authorized administrator of Chicago Unbound. For more information, please contact [unbound@law.uchicago.edu](mailto:unbound@law.uchicago.edu).

Lee Anne Fennell

**THE** PROPERTY VALUES  
BEYOND PROPERTY LINES

**UNBOUNDED**

**HOME** Yale University Press  
New Haven & London

---

Excerpted from *The Unbounded Home: Property Values Beyond Property Lines*  
by Lee Anne Fennell, to be published in September 2009 by Yale University Press.

Published with assistance from the Louis Stern  
Memorial Fund.

Copyright © 2009 by Lee Anne Fennell. All rights reserved.  
This book may not be reproduced, in whole or in part, in-  
cluding illustrations, in any form (beyond that copying per-  
mitted by Sections 107 and 108 of the U.S. Copyright Law  
and except by reviewers for the public press), without written  
permission from the publishers.

Printed in the United States of America.

*Library of Congress Cataloging-in-Publication Data*

Fennell, Lee Anne.

The unbounded home : property values beyond property  
lines / Lee Anne Fennell.

p. cm.

Includes bibliographical references and index.

ISBN 978-0-300-12244-2 (pbk. : alk. paper) 1. Land  
use—Law and legislation. 2. Right of property. 3. Com-  
mons. 4. Homeowners' associations—Law and legislation.  
5. Home—Philosophy. I. Title.

K3534.F46 2009

343.73'025—dc22

2008054894

A catalogue record for this book is available from the British  
Library.

This paper meets the requirements of ANSI/NISO Z39.48-  
1992 (Permanence of Paper).

1 0 9 8 7 6 5 4 3 2 1

## **CONTENTS**

Acknowledgments ix

Introduction i

### **PART I. PROPERTY OUT OF BOUNDS**

1. Beyond Exclusion 9
2. Constructing the Home 25
3. The Commons and the Anticommons 45

### **PART II. SPILLOVERS WITHIN NEIGHBORHOODS**

4. Managing the Neighborhood Commons 67
5. Adaptive Options 96

### **PART III. COMMUNITY COMPOSITION**

6. Association and Exclusion 123
7. Property in Association 147

**PART IV. RECONFIGURING HOMEOWNERSHIP**

- 8. Breaking Up the Bundle 173
- 9. Homeownership, Version 2.0 197

Conclusion 219

Notes 223

Bibliography 263

Index 291

## INTRODUCTION

What does property mean, here and now, in the early twenty-first-century United States? This book approaches the question by examining a set of problems surrounding our society's most familiar, important, and emotionally freighted manifestation of property—the home. That the home has evolved as a resource over the past two centuries should not surprise even the most casual observer of social history. In 1790, just over 5 percent of the U.S. population lived in urban areas; by 2000, the figure was 79 percent, and more than 80 percent of the population resided within metropolitan areas.<sup>1</sup> Homeownership rates have also grown significantly; about two thirds of metropolitan area householders are now homeowners.<sup>2</sup> The residential experience for most Americans thus uneasily combines the profound interdependence of metropolitan life with the promise of unbridled autonomy that homeownership connotes.

Property law has done surprisingly little to respond to these transformations in residential life or to address the resulting tension. Although land use controls attempt to counteract the spillovers that interdependence produces, they tend to operate in a blunt and categorical manner that introduces new difficulties. Meanwhile, our notion of home as a form of property remains mired in outdated concepts, dominated by fencelines and surveys, metes and bounds. My project here is to expose the increasingly poor fit between widespread property concepts and the home as it exists today, to isolate the problems caused by that divergence, and to suggest some ways of addressing it.

This book's analysis proceeds from a single, simple premise: the value of residential property in metropolitan areas has come unbound from the four corners of the owned parcel. As the realtor's mantra of "location, location, location" suggests, homebuyers are often much less interested in the on-site attributes of real estate than in the people, things, services, and conditions lying beyond what we continue to refer to as the property's boundaries. Residential property now serves not only as a resource in its own right but also as a placeholder for a quite different set of resources that are not, and cannot be, contained within the physical edges delineated by plat surveys. Yet, law and theory continue to apply boundary-focused templates to homes that bear a greater conceptual resemblance to Bluetooth than to Blackacre. This book uses a series of problems central to residential life in the United States to spotlight this disconnect and to consider what it would mean for law and policy to take seriously the increasingly diffuse nature of residential property's value.

To fix ideas, consider how property concepts surrounding the home might enter the consciousness of a fictitious household, the Middletons, over the course of a single month. The Middletons fret about a pending proposal to redraw elementary school attendance zones (even though their youngest is now in middle school). They speak out at a zoning meeting to oppose the introduction of townhouses in an area three blocks from their home that is currently zoned for single-family homes. They remark with approval on a news article about the planned condemnation of a "blighted" block eight miles from their home, to make way for a development that would offer convenient shopping. They are appalled by an inquiry from city officials about whether Maggie Middleton, who designs Web sites for dozens of clients and advertises her services in the yellow pages, is operating an unlicensed home business. They continue their long-standing dispute with their homeowners association about whether they can park their boat trailer in the driveway. And they register a complaint with the city authorities about their next-door neighbors, who seem to have rented out their basement to another family in violation of zoning law. And so on.

Socialized to view the home as a castle, the Middletons think it only natural that they should control what happens on their own property.<sup>3</sup> As a result, they vehemently resist any intrusion into their ownership prerogatives. But, like most Americans, the Middletons have another reason to be hyper-

vigilant about their home: it represents the household's single largest asset, aside from human capital. For this reason, they feel fully justified in opposing activities beyond their parcel's borders that might devalue their most significant source of financial security.<sup>4</sup> What we have, then, is a nation of homeowners, largely concentrated in metropolitan areas, who act both as castle-keepers bent on controlling their own space and as community crusaders bent on controlling everyone else's. It would be easy to fault the Middletons for being inconsistent, but the real culprit lies in a popular notion of property that fails to square homeownership's promise of dominion and control with the realities of a complex, interdependent world.

Of course, spillovers that affect neighboring properties are nothing new, and law has long possessed tools for addressing them. But when enough of the value of a resource is found beyond the edges of the site we call "the property," we must ask whether we are looking in the right place when contemplating the resource. The question is not one of mere theoretical interest. I contend that the blunt mechanisms that have been used to deflect negative spillovers and to capture positive spillovers are not designed to bear the weight placed upon them by the outward shift in residential property's center of gravity. As a result, efforts to address overwhelming and pervasive off-site influences have created new dilemmas of their own.

Two overlapping sets of homebuyer concerns produce especially challenging interactions among neighbors, developers, and municipalities: neighborhood ambience and community composition. The strategic dilemmas that surround these issues reveal a central fact about property's unbounded nature: the physical exclusion of outsiders from individually owned parcels is a dramatically underprotective strategy for securing access to the resources that people mean to purchase when they buy a home. Unable to physically fence out unwanted impacts or fence in desired amenities, households collectively turn to property mechanisms like zoning and covenants to push control outward from the individual parcel. These mechanisms typically rely on categorical bans on particular land uses within a given neighborhood, zone, or jurisdiction.

The impulse to apply blunt principles of exclusion to a realm that extends beyond the individual parcel is comprehensible, but ultimately problematic. First, there is an obvious tension between the desire, grounded in traditional notions of property, to exercise dominion over one's own parcel and the de-

sire, prompted by the realities of modern life, to control every aspect of the environment surrounding one's parcel. The result has been confusion about what property ownership means, and equal measures of outrage against intrusions on one's prerogatives as an owner and as an interested neighbor. Second, even if individual communities can reach internal agreement about excluding particular land uses from their midst, the overall pattern of land use choices within a larger metropolitan area can create additional negative effects. Because excluding land uses (such as multifamily homes) often amounts to excluding households (those who cannot afford single-family homes), associational patterns in metropolitan areas are deeply impacted by the use of these property tools.

This book considers how society might design alternatives to existing property instruments that would address both localized extraparcels impacts and the larger-scale dilemmas produced by efforts to control those localized impacts. In broad terms, these alternatives involve reconfiguring property so that it does a better job of aligning the homeowner's returns with the homeowner's choices. These reconfigurations require us to move beyond the binary choices that have dominated the metropolitan residential experience—banning or permitting uses, allowing or forbidding exclusion, renting or owning a home. Conceiving conflicts like those faced by the Middletons as resource dilemmas not entirely unlike those surrounding resources like clean air or a sustainable fishery allows us to expand the menu of policy options.

One reconfiguration approach involves developing new forms of alienable entitlements, rather than simply banning or allowing a particular activity. Drawing on innovations in environmental law, we can imagine devising tradable entitlements to engage in acts with aesthetic impacts, and even (in carefully delineated contexts) tradable entitlements relating to association with preferred neighbors and peers. These instruments would allow responsibility for inputs into common environments to be more precisely allocated and priced. Another, quite different, approach would attenuate homeowners' vulnerability to off-site impacts by scaling back their investment exposure so that it more closely aligns with their effective sphere of control. Here, building on an exciting line of work by Robert Shiller and his collaborators (among others), I examine the potential to reconfigure homeownership in a way that decouples the investment volatility associated with off-site factors from the homeowner's bundle.<sup>5</sup>

The analysis proceeds in four parts. Part I lays out the theoretical framework that will be employed throughout the balance of the book, working through and building on a set of concepts familiar to many academic readers—property rules and liability rules, competing models of property, the Tiebout Hypothesis, the tragedies of the commons and anticommons, and the strategic interactions captured in games like the Prisoner’s Dilemma and Chicken. Part II examines problems of neighborhood aesthetics, assesses current attempts to address those problems, and proposes a new approach involving transferable entitlements in aesthetic impacts. Part III takes on the most ambitious and controversial implications of recasting residential property to account for off-site impacts. Here, I suggest that residential association itself constitutes a resource dilemma that can, in certain cases, benefit from the theoretical tools of property. Part IV steps back to consider whether some of the theoretical and practical problems surveyed in the book could be alleviated through a more fundamental alteration of the types of investment volatility included in the homeownership bundle.

While the book focuses on the home’s theoretical place within the metropolis, my analytic method serves more generally to illustrate the interaction of collective action problems at different geographic scales. The commons, anticommons, and semicommons templates that I apply here to the metropolitan neighborhood context are general-purpose analytic tools that can be used to understand and respond to all manner of resource dilemmas. The unbounded home thus represents not only an especially pressing and important set of unresolved collective action problems but also a window into larger questions of property theory.

Before I continue, two stylistic matters bear mentioning. First, I follow the convention of using female and male pronouns, respectively, in alternating chapters. Second, the documentation style used in this book is much sparer than that which prevails in the law reviews. I employ endnotes rather than footnotes and, to avoid breaking the flow of the text, typically affix them to the ends of sentences or groups of sentences rather than tag them onto each individual proposition. The endnotes contain short-form citations to some of the most relevant sources as well as some explanatory notes; full citations appear in the bibliography. Readers desiring more background material may find the articles on which this book draws, which are listed in the Acknowledgments, to be useful sources of additional citations.

# 1

---

## BEYOND EXCLUSION

The institution of homeownership, despite its familiarity, produces conflicting and even incoherent attitudes. People are shocked to learn that acts like building a fence or painting a door can be prohibited on their own property, but they are equally appalled at the prospect of a high-density development down the block. They are terrified that their beloved home might be taken through eminent domain, yet they are aghast if the city allows local conditions to erode their property values. Homeowners want an ironclad sphere of privacy and autonomy, but they want it wrapped in an environment that they can control in every particular. They want a secure and lucrative investment vehicle that doubles as an inviolable repository for subjective value. In short, people try to wring a great deal more from their homes than any property system can deliver.

How should law respond to these incongruous demands on residential property? The fact that people want inconsistent things from their homes need not be interpreted as a sign of entrenched mental confusion or shortsighted selfishness. Property theory has offered people no coherent vision of what it means to own a home that might be reconciled in even a loose way with lived experience. Homeowners have been given no tools for perceiving—much less making—the relevant trade-offs between individual and collective control. Rather, they oscillate in an unreflective way between asserting individual control over their own parcels and protecting their stakes in off-site occurrences.

Resolving this tension requires more than merely bringing people's thinking about property up to date or increasing the sophistication with which they view the institution of homeownership. People already understand that the home's value comprises more than the parcel contains. Rather, the poor fit of existing property models corresponds to substantive shortcomings in property law. Land use controls, as they exist today, operate mainly in a binary manner—either a use is banned, or it is allowed. There is almost never the openly acknowledged possibility that households could pay for the privilege of engaging in an unusual but especially valued use, such as adding a garage apartment, or that governing bodies could be required to pay for the privilege of banning a particular land use, such as multifamily dwellings. Moreover, few have thought creatively about the set of risks that the standard homeownership bundle should and should not contain as a default matter. For example, must homeowners be exposed to housing market risks that they have no power to control, or might these risks be more efficiently held by investors within diversified portfolios?<sup>1</sup> By failing to probe such questions, property law has developed without a coherent understanding of the home as a resource.

In this book, I hope to advance a new understanding of residential property. In doing so, I chart the relevant trade-offs between household and community control and propose mechanisms to assist people and communities in making them. This task requires first stepping back to rethink the meaning of property. Above all, property represents a societal response to resource dilemmas. But property is also an inherently sticky institution that carries forward the forms and shapes that worked best in resolving resource dilemmas in the past. The adaptation of old property forms to new conditions presents familiar difficulties for property theory. Should we update property incrementally, expand it to include more legal interests, hold firm to our past understanding of it, or simply declare it dead as a distinct idea?<sup>2</sup> Here, I approach property from a functional perspective by asking what property is meant to *do*.

In the balance of the chapter, I consider the function of property in a quite general way. This discussion sets the stage for the next chapter, in which I examine the special characteristics of the home as a resource. Chapter 3 will then introduce the commons and anticommons templates

that are used throughout the book to understand and devise solutions to a broad range of residential property dilemmas.

### Property's Work

Writing more than two hundred and forty years ago (and using a fair degree of hyperbole even then), William Blackstone articulated an ideal of property as “that sole and despotic dominion that one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe.”<sup>3</sup> Legal thinkers have always recognized that property as it actually exists does not square with this model. Indeed, Blackstone himself did not endorse such an absolute view of property, as his writings make clear.<sup>4</sup> But idealized visions of dominion and exclusion live on in the popular imagination as representing the true core of property.<sup>5</sup> This model has worked less and less well as the spectrum of privileges conveyed by property ownership has narrowed and the percentage of value represented by factors lying outside the subject parcel has grown. Yet, no satisfactory model has emerged to replace it.

To be sure, many legal scholars (from the legal realists onward) have gravitated toward the metaphor of property as a “bundle of rights” or “bundle of sticks.”<sup>6</sup> This approach has the advantage of permitting property to mean as much or as little as the situation requires—“sticks” can be added, subtracted, combined, and recombined in limitless ways, all without ever moving outside the category of property. But this theoretical strength is also a weakness. The sticks idea suggests that property lacks any stable core of meaning around which expectations might form; as such, it cannot help laypeople reconcile the shortcomings of the exclusion-based model. While the notion of a bundle of sticks may be helpful in understanding that property rights can be diminished without being extinguished, it is of little help in understanding why or how this diminution might occur.

Consider a simple dispute between Angus, who wishes to add a “granny flat” to his home to generate rental income,<sup>7</sup> and his neighbor, Beth, who strongly opposes this use. Angus might argue that what happens on his property is subject to his own personal dominion and is simply none of Beth’s business. This argument, of course, proves too much. Even at com-

mon law, Angus could not defend his maintenance of a nuisance on his property using this logic. Beth, for her part, might invoke her own idea of exclusion by asserting that her dominion over her own property is compromised by the presence of granny flats within her viewshed. Abstract principles of exclusion on their own offer no way of choosing between Angus's position and Beth's. The bundle-of-sticks approach provides no determinacy either, as it would simply lead Angus and Beth to wrangle over who should be allotted the granny-flat stick associated with Angus's property.

Neither the bundle-of-sticks metaphor nor the model of Blackstonian exclusion offers useful normative guidance in resolving land use disputes, because neither approach focuses on the appropriate function of property. One might say that property is meant to exclude. But exclusion is pointless on its own; it only becomes valuable when it enables property owners to do something—or some set of things. Modern advocates of an exclusion-based understanding of property indeed emphasize that exclusion is instrumental to performing any of a broad and indeterminate set of uses on one's land.<sup>8</sup> Moreover, these scholars suggest that exclusion is an attractive core approach to property precisely because it can be enforced without any inquiry into the specific uses that might be made of the owner's exclusive realm.<sup>9</sup> On this account, property's job is to clear a space where diverse endeavors can be undertaken by an owner without interference.

By pushing a bit on this idea, we can see both the ways in which exclusion operates as advertised and the ways in which it falls short. Exclusion's advantage lies in its ability to strengthen the relationship between an owner's inputs and the outcomes that she enjoys or suffers. The idea is intuitive. Keeping others off the property safeguards one's own inputs (for example, by keeping carefully distributed fertilizer from being displaced) while keeping out extraneous and potentially harmful inputs (such as crop-damaging cows). Exclusion also protects positive outcomes from being carried away—outsiders cannot simply show up and fill their knapsacks with ears of corn that have been painstakingly cultivated over a series of months. More generally, exclusion is a broad-gauge strategy for protecting from interference whatever (unknown and perhaps unknowable) activities may be going on inside the property boundaries.<sup>10</sup> A culture of exclusion-based property ownership also encourages owners to

fence in factors (such as unruly dogs) that might produce unwanted impacts for neighbors.

Intuitive as a boundary-focused approach seems when discussing crops and animals, it appears somewhat anachronistic when applied to homes. Although boundaries remain unquestionably important (especially for protecting interior space), fortifying and defending the parcel's boundaries is both an underinclusive and an overinclusive strategy for securing the home's value. Today, most of the threats to the value of one's home come not from marauding cattle or vegetable thieves, but rather from events and conditions that lie outside the parcel's boundaries and never cross those boundaries in a physical sense. Larger economic and social factors determine the demand for, and supply of, housing in a particular location. For example, changes in local labor markets can influence both the costs of home construction and the demand for housing. Local governmental decisions about matters like transportation, land use, education, and policing can have dramatic effects on the home's value. The aggregate actions of one's neighbors also produce effects without manifesting themselves in physical intrusions. For such reasons, a homeowner's defense of her boundaries is a radically underinclusive strategy for protecting and enhancing the value of her property.

Boundary exclusion is also an overinclusive strategy for safeguarding home values. While homeowners may be quite vigilant about exclusion when it comes to the dwelling itself and its private fenced areas, strong exclusion from the parcel's edges would be unworkable, even ludicrous. For example, only the most curmudgeonly homeowner would try to keep neighborhood children from making reasonable use of the front lawn to retrieve wayward toys or pets. Pedestrians are typically allowed to use the edges of front yards as walkways in areas lacking sidewalks, especially where traffic makes walking in the roadway unsafe. Likewise, homeowners routinely allow motorists to use their driveways to execute K-turns; they also allow uninvited individuals to approach the front door under most circumstances.<sup>11</sup> And although one's ownership interest rises "to the sky," airplanes, satellites, and spacecraft are legally allowed to enter one's airspace.<sup>12</sup>

In addition to such obvious physical invasions, innumerable lesser boundary crossings occur at the molecular level. Fumes, odors, sound, and light cross freely over property boundaries. Even if banning all activ-

ities producing such cross-boundary impacts were possible, it would not be desirable—at least if we understand exclusion not as an end in itself but rather as a means to the end of safeguarding meaningful land uses. Because virtually any activity on one’s property will generate some extra-boundary effects, such a rule would render property worthless as a practical matter. For example, simply walking across one’s own front yard stirs air molecules and doubtless causes some of them to cross the boundary line. Nor can we assume that these moving molecules will have no impact on a neighbor’s enterprises. For all we know, the neighbor is engaged in a sensitive weather experiment that will be grievously disrupted by even the slightest stirring of air across the boundaries.<sup>13</sup>

The point is a simple one: some degree of exclusion helps property do its job of pairing inputs and outputs, but too much exclusion can be harmful to property’s ultimate ends. As exclusion rights become more and more categorical, they erode some of the use-content that exclusion was meant to protect in the first place.<sup>14</sup> Hence, property law cannot simply adopt a rigid, categorical rule of exclusion but rather must decide on the strength and content of exclusion rights. Moreover, exclusion is not sufficient to deliver all of the protection that homeowners seek. Thus, the law must also decide what else it will do—or allow homeowners acting collectively to do—to influence events and conditions occurring outside individually owned parcels.

Traditionally, law has responded to the shortcomings of boundaries by deciding whether to permit various activities with extraboundary impacts or to prohibit them outright. As greater numbers of people live and work in close proximity and as activities with extraboundary impacts proliferate, so too does the number of required societal judgments about those activities. The bundle-of-sticks metaphor initially seems well suited to handle these adjustments. Disaggregating property into separate sticks representing different uses or different powers suggests that we can decide in an endlessly precise and customized manner what property should mean in any given instance. As legal theorists have noted, however, this decomposition threatens to destroy property as a distinct subfield of legal entitlements.<sup>15</sup> Because the sticks metaphor is not tethered to a functional understanding of property, it contains no stopping point in breaking down familiar property forms and, as noted above, cannot provide any guidance in deciding how the various sticks should be distributed among owners.

I argue that property's essential nature resides in the institution's capacity to pool together inputs and outputs. It need not do so perfectly, of course. Routine spillovers across boundaries can be identified and readily controlled through standard legal instruments: regulation, tort law, contractual arrangements, or special-purpose property instruments like easements. But as the volume and proportion of extraboundary effects arising from activities undertaken on property grows, the property form itself (as it is currently conceived) becomes increasingly incapable of collecting together inputs and outputs and charging them to the account of the owner. The bundle-of-rights model never registers this problem—the bundle is simply split into ever more sticks. On a functional account, however, pervasive and uncontrollable off-site effects signal a fundamental failure in property's configuration.

### A Leaky Bucket of Gambles

A functional look at property suggests that a new metaphor is in order, one that focuses on property's job of pairing together inputs and their (often quite uncertain) effects or outcomes. Taking a page from Henry Smith, who recently adopted an image William Markby employed more than a century ago, I suggest that a bucket offers the best working model of property.<sup>16</sup> Smith finds Markby's "bucket of water" metaphor compelling because it suggests that property is made up not of distinct, well-articulated sticks but rather of a unified and undifferentiated whole representing all the things that one might do with one's property.<sup>17</sup> I find the metaphor fitting for a second reason—buckets are not pristine, airtight containers but rather rough-and-ready catchments that are notoriously prone to leaks and sloshes.

Property, true to its bucketlike form, can at best capture most of the outcomes associated with an owner's inputs most of the time. Meanwhile, other sources of law (tort, regulation, and so on) stand ready to clean up routine spills and sloshes. When the sloshes start to overwhelm the system so that more is spilling out than is staying in, however, it is time to reconfigure the bucket—whether by making it larger, nesting it within other buckets, or devising special-purpose beakers and pails that can address identifiable sources of spillage. In later chapters, I suggest in a more con-

crete way how these possibilities might play out. For now, it is worth taking a moment to flesh out the metaphor.

What, exactly, is collected in the bucket? On one view, the bucket arrives prefilled with all the conceivable things that an owner might do with the property. The owner can then selectively dip out and transfer specific uses to others, or see particular use privileges siphoned away politically.<sup>18</sup> While this way of thinking about the bucket vividly suggests that the initial set of use privileges represents an undifferentiated whole rather than discrete, enumerated entitlement sticks that have been stacked together, it does no better than the sticks analogy in offering intuitions about when subsets of the overall entitlement should be shifted to another party, or indeed about how large the bucket should be and what its contents should originally include.

A better way of understanding the bucket's contents follows from a functional understanding of property. On this view, the bucket itself represents the conceptual boundaries of a particular property form, which is ideally capable of holding and amassing value for an owner over time. The owner puts content into the bucket by engaging in any of a wide variety of endeavors on or with the property; these endeavors will involve inputs of materials, time, effort, and skill. The associated choices represent gambles that will play out within the domain of the owner's holding.<sup>19</sup> The institution of property aspires to pair together, with some regularity, control over inputs and ownership of outcomes.

Of course, owners are not free to plunk all kinds of inputs into their property buckets willy-nilly. The law rules out some activities because they run afoul of normative constraints on action quite independent of property law (for example, murder is prohibited, even if an individual owns the place in which the murder would occur and the weapon for carrying it out).<sup>20</sup> In other cases, law places constraints on what can be done with the property even though the activity in question carries social value, because of its tendency to produce harmful side effects. But property allows owners significant choice among inputs on the expectation that the results will be charged back against that same owner.

This picture of property suggests that the bucket (that is, the conceptual boundaries of the property) should be scaled in a manner that renders it generally capable of containing the outcomes, whether positive or negative, of the gambles that are typically undertaken by the person desig-

nated as owner. The task of appropriately scaling property is a dynamic one; changes in the way that owners use property may yield outcomes that are captured less well (or more well) by existing property forms. For example, in times and places where owners commonly used property for agriculture with only incidental residential uses, the recreational music-making of one family was unlikely to disturb a neighbor's activities. As property holdings grew smaller, residences became more tightly spaced, and technologies for amplifying music became available, the inputs into the endeavor of merrymaking in one's home became increasingly likely to yield outcomes that would interfere with the endeavors undertaken by neighboring property owners. In short, the scale of the activities that owners undertake on their property may fall out of alignment with the scale of the outcomes of those activities.<sup>21</sup>

What should the law do about inputs that have a demonstrated or suspected tendency to generate negative effects beyond the property's boundaries? There are many possible responses—some that are well recognized and others that have not been as carefully explored.

#### Four Rules

A standard starting point for analyzing society's slate of choices for resolving land use conflicts is found in Guido Calabresi and Douglas Melamed's groundbreaking 1972 *Harvard Law Review* article.<sup>22</sup> Calabresi and Melamed offer a systematic look at the alternatives available to a court adjudicating a conflict between two neighboring parties, such as a factory spewing smoke and a homeowner suffering nearby. Their framework broke the court's choice into two parts: which party holds the entitlement at issue (here, over what happens to the air shared by the factory and the homeowner) and how that entitlement is protected by the law.

As Ronald Coase emphasizes, it takes two parties to create a land use conflict.<sup>23</sup> The law must therefore choose which party's interests will receive priority. In a world of zero transaction costs, the Coase Theorem holds, the parties could bargain their way to an efficient solution regardless of the initial legal rule (although they might not reach the same solution from every starting point).<sup>24</sup> But because transaction costs are often significant, the law's choice about whom to entitle can matter a great deal.

Table 1-1 Calabresi and Melamed's four rules

	<i>Homeowner holds entitlement</i>	<i>Factory holds entitlement</i>
Protected by a property rule	Factory is enjoined (Rule 1)	No relief (Rule 3)
Protected by a liability rule	Factory can pollute and pay damages (Rule 2)	Homeowner can stop pollution by paying stopping costs (Rule 4)

Once that decision has been made, a second decision becomes necessary—how the entitlement will be protected. Calabresi and Melamed distinguish between two alternative protection regimes—property rules and liability rules. What they term “property rule” protection is exemplified by the sorts of injunctive relief typically available to property owners to prevent trespasses, although it would also encompass other, supercompensatory forms of relief, such as punitive damages. In contrast, “liability rule” protection, which provides only for compensatory damages, effectively sets a price at which an entitlement belonging to one party may be unilaterally obtained by another party without the original entitlement-holder’s consent. Combining the choice of initial entitlement assignment with the choice of entitlement protection yields a two-by-two grid, as shown in Table 1-1.<sup>25</sup>

Rules 1 and 3 represent the opposite poles of categorically allowing or prohibiting the factory’s operations. In each case, the party disfavored by the legal rule would be stuck with it unless she could successfully negotiate a change with the other party (that is, a move from a regime in which the factory’s operations were prohibited to one in which they were permitted, or vice versa). Rules 2 and 4 introduce the possibility that one party might begin with the right to control what happens to the air, but the other would be able to buy up that right unilaterally, over any objections of the original entitlement holder, at a price set by a third party. That the court’s choice set included not three possibilities but four was an important insight of the piece. Not only could the court (by setting damages)

effectively establish a price at which the factory could emit over the objections of the homeowner, the court could also establish a price at which the *homeowner* could shut down the factory's operations over the factory's objections.<sup>26</sup> As it happened, this unusual fourth alternative was independently approximated in a case decided by the Arizona Supreme Court around the time that Calabresi and Melamed published their article.<sup>27</sup>

Although Calabresi and Melamed's four-rule grid has not gone uncriticized, it has served as a crucial catalyst in thinking broadly and creatively about the many possible ways society might structure legal rules. Numerous scholars have used the Calabresi and Melamed framework as a springboard for exploring additional applications of the four rules originally outlined, as well as for adding new combinations and permutations to the choice list.<sup>28</sup> Taken in combination with the insights of Coase, the Calabresi and Melamed framework leads to two observations that are foundational to the analysis here. First, at least where normative side constraints do not rule out the possibility, the law's initial assignment of entitlements need not be the final assignment—instead, entitlements can be transferred between parties. Second, the law can choose how to structure those transfers. Thus, not only can entitlements be designed to permit movement from a given legal starting point upon mutual consent, they can also be formulated to give one party or the other the option of making a unilateral shift to a different legal regime at a particular price.

Scholarship building on the work of Calabresi and Melamed offers additional insights into the many ways that control over conflicting land uses might be structured.<sup>29</sup> For purposes of the arguments in this book, one refinement is especially significant. In discussing pricing mechanisms in land use contexts, we can distinguish the pricing of *inputs* that generate a risk of harm from the assignment of liability for harmful *outcomes*.<sup>30</sup> The next section explains.

### Inputs and Outcomes

Suppose Edison runs over Ferris's foot with his Land Rover. A court puts a dollar figure on the costs of the foot damage and makes Edison pay that amount to Ferris. On the popular scholarly understanding, this is a classic example of a liability rule in action, one in which Edison has

“bought out” Ferris’s entitlement not to have his foot crushed by paying for the damage caused. For many, this account grates against moral sensibilities.<sup>31</sup> Beyond that, it is simply an odd way to describe what has happened. As Carol Rose has noted, participants in an accident are thrust into an interaction that was neither desired nor contemplated in advance, making it inapt to suggest, as the scholarly literature does, that the injurer has engaged in a purchase transaction or exercised an “option.”<sup>32</sup> Normally, when one buys something, one learns the price in advance and makes a conscious decision to enter into the purchase transaction. Edison, the injurer in our story, did neither of these things; instead, he merely selected an input (the activity of driving at a particular level of inattentiveness) that triggered his liability for any resulting harmful outcome.

Entitlement transfer mechanisms may involve liability payments triggered by accidental outcomes (such as a crushed foot), or may instead involve pricing inputs that create a risk of unwanted results (such as driving in a certain manner). While advance input-based payments to potential victims are hard to imagine in the accident context, they are much more plausible in land use settings. Land use conflicts do not present one-off chance encounters among strangers; they produce ongoing interactions among neighbors. The explicit pricing of privileges to undertake particular endeavors on land (such as keeping pets or making particular aesthetic choices) therefore forms a viable alternative to an outright ban on the activity or a rule allocating liability for harmful outcomes.

Pricing inputs has some underappreciated advantages. First, because the price term is not tied to the actual manifestation of harm, it can be consciously adjusted to meet distributive or other goals. The amount might be set equal to an objective projection of the expected harm, but it might also be keyed to the subjective value placed on the exercise (or nonexercise) of the input by one party or the other. The explicit pricing of an entitlement to engage in an otherwise legitimate input activity also avoids the implication (commonplace where liability for actual harm is characterized as a mere “price”) that a party is buying the right to harm another person. Instead, input pricing makes clear that the payment is being made only for the privilege of engaging in the legitimate activity itself.

Another closely related point involves incentives for the “victim” in the interaction. Suppose Jack pays Jill a lump sum in advance for the en-

titlement to throw boulders down his hill toward Jill's property. If the rolling boulders create a risk of harm for Jill, she has no less incentive than she did before the payment to engage in efficient self-help or mitigation efforts (such as staying out of the rolling boulders' path).<sup>33</sup> Not so, if Jack will have to pay Jill for the damage actually caused. Although we can assume that Jill has her own reasons for not wanting to be crushed by a boulder (even if she—or her estate—were compensated for it), it is not implausible that she would be at least marginally less careful about keeping her personal property out of harm's way if payments were based on realized harm.<sup>34</sup>

One disadvantage of paying for an input in advance is that it leaves any luck-based risk to fall on the victim. If random factors determine whether a given boulder rolls in a straight (and hence avoidable) path or instead careens crazily through Jill's property, and if we assume that Jill is less able to insure against risk than is Jack, then making Jack liable for the actual harm may have advantages. Improving Jill's access to insurance would be another alternative, of course. To the extent we can identify the factors that influence outcomes and isolate their impacts—perhaps boulders roll crazily in snowy or muddy conditions but in a predictable path when the ground is dry—the risk associated with the occurrence of those factors can be alienated to some third party who is well positioned to bear it. Precisely such slicing and dicing of risks can be seen in innovations like weather derivatives—financial instruments that pay off only if certain weather conditions obtain, permitting weather-sensitive businesses to hedge against bad weather luck.<sup>35</sup>

Another problem with prepaying for inputs involves Jack's future incentives to make use of innovative new technologies to reduce harm. Having already prepaid to roll boulders, Jack might not seem to have any reason to employ a newly invented boulder-removal machine that would cost less to buy and operate than the expected value of the harm to Jill. The dissenting judge in *Boomer v. Atlantic Cement* made precisely such an argument against allowing a factory to proceed with its operations upon payment of a preset amount in “permanent damages” to neighbors harmed by those operations.<sup>36</sup> Making payment for inputs iterative (rather than once and for all) offers a solution, but one that may be administratively cumbersome. Alternatively, we might devise mechanisms whereby

Jill can buy back Jack's boulder-rolling privileges in accordance with specified protocols at some point in the future. We would expect Jack to give up his boulder-rolling privileges if Jill offered him enough money to purchase the boulder-removal machine and still come out ahead, but negotiations may be difficult. Giving Jill the right to require Jack to adopt new externality-reducing technologies, provided she pays for them, could offer a more streamlined solution.

### Pricing and Property's Function

It is helpful at this point to step back and examine how the notion of pricing inputs connects to the functional understanding of property introduced earlier. If property is understood as a reservoir for containing inputs and their outcomes, enforcement of property boundaries represents only one way of accomplishing the containment function. There are a number of other possibilities. First, activities that have a propensity to generate too many harmful outcomes can simply be banned. For example, the law might forbid the Jacks of the world from heaving boulders across the landscape. Alternatively, prohibitions could be stated in terms of outcomes—Jack could be forbidden to roll boulders that cross within ten feet of Jill's dwelling—with supercompensatory penalties attached to violations. It would also be possible to charge harmful outcomes back to the actor whose actions produced those outcomes. Here, Jack could compensate Jill for the harm she suffered as a result of his boulder-rolling activities. Finally, inputs that produce a risk of harmful outcomes for others might be priced, as discussed above.

Although remedies for nuisance have included damages as well as injunctive relief, spillovers have primarily been managed through prohibitions on particular land uses. Because nuisance covers only a limited spectrum of impacts, zoning or covenants are typically at issue when homeowners attempt to expand the envelope of control beyond their individual parcels. These land use controls tend to rely on bans that can be enforced injunctively. As the volume and extent of these input-based prohibitions grows, almost unbearable pressure is placed on the understanding of ownership as a realm of relative autonomy. The relief valves that exist tend to be political in nature.

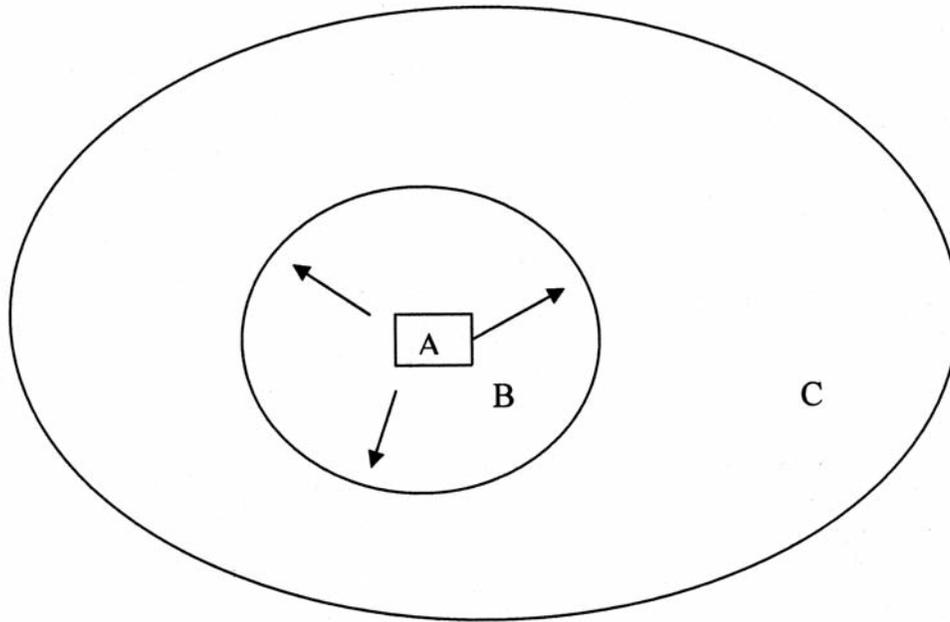


Figure 1-1. The expanding envelope

Explicitly pricing inputs may offer a better way to reconcile the prerogatives of land ownership with the realities of community interdependence. Where a multitude of activities undertaken on property are central to a landowner's own legitimate ends and at the same time potentially detrimental to the legitimate ends of neighboring landowners, blunt categorical bans fall short—they either underprotect owners or overregulate them. More nuanced solutions are possible through pricing mechanisms. In Parts II and III, I flesh out how such mechanisms could operate to resolve two distinct sets of conflicts in neighborhoods that are schematically represented in Figure 1-1.

The letter A in Figure 1-1 represents a single residential parcel of land. As the next chapter discusses in more detail, Parcel A is a porous resource that both impacts and is impacted by its neighbors. Zoning or covenants might be employed to establish a larger envelope of control, represented by the oval labeled B. This outward expansion of control indeed helps to address the problem of spillovers, but it can generate problems of its own. Difficult trade-offs must be made between the rights vouchsafed to the community falling within the expanded area of control and those left with individual parcel-holders. The sorts of relatively inalienable, categorical

rules that are most often used to govern realm B may not work especially well at striking that balance. Moreover, even if all of the interests within B could be perfectly addressed through a governance regime that shifted an optimal amount of control to the community, the policies enacted by B might create inefficiencies within the larger community of which B is a subset, represented by the larger oval labeled C in Figure 1-1.<sup>37</sup> In Parts II and III, respectively, I explore mechanisms that can be used in conjunction with the traditional homeownership paradigm to address these two sets of problems.

Part IV, in contrast, challenges the traditional homeownership paradigm directly. Increasingly refined mechanisms for pricing inputs into common environments can make headway in reducing the divergence between the choices made by homeowners and the impacts that the homeowner suffers or enjoys. However, not all inputs into home price volatility can be captured through such mechanisms, and not all inputs that can be captured in this manner are most efficiently managed by individual homeowners. Rather than focus on ways to extend control to match exposure, the final part of the book considers ways to scale back the homeowner's exposure so that it aligns more closely with the homeowner's effective sphere of control. In other words, I examine whether the home should be turned into a less porous entity, at least as far as investment risk is concerned, through institutional mechanisms that absorb some of the shocks to home values.

To set the stage for the analysis that follows in Parts II, III, and IV, two additional pieces of groundwork are necessary. The next chapter discusses more concretely the unbounded nature of residential property in metropolitan areas. Doing so requires considering the many components of the home that go beyond its physical structure. Although I refer to the whole as a "bundle" and the home purchase as a "bundled" one, I do so not to invoke the bundle-of-rights or bundle-of-sticks metaphor for property, but rather to draw attention to the elements that constitute the home as a resource and that account for its value. Many of these elements are shaped by the choices that other actors, whether neighboring homeowners or local governments, make. Chapter 3 concludes this part with a game-theoretic discussion of the dilemmas arising from those interdependent decisions, which are more fully explored in Parts II and III.

Excerpted from Chapter Four, *The Unbounded Home: Property Values Beyond Property Lines* by Lee Anne Fennell, to be published in September 2009 by Yale University Press

# 4

## MANAGING THE NEIGHBORHOOD COMMONS

In any community, control over resources must be divided somehow between the individual members and the group as a whole. This holds true even in the smallest of communities, the household, as Robert Ellickson's work has shown.<sup>1</sup> Although household members may share many resources, specific individuals typically have proprietary control over privatized areas, such as particular bedrooms. Even within these spaces, however, the household's "management" has veto rights over activities that produce spillovers. Thus, a child may correctly assert that a particular bedroom is "his," even though he lacks the authority to set a fire within it, to crank the stereo to an earsplitting level, or to admit unapproved guests through its windows.

Similarly, land use rights must be divided up between households (who own particular parcels of land) and the community that those households constitute. Property law must respond to the fact that the neighborhood environment experienced by each homeowner—an integral part of his housing bundle—is deeply influenced by the acts of nearby property owners. The previous chapter framed the problem by explaining that goods such as local ambience that are shared among neighbors can be understood as common-pool resources. Scores of commonplace residential activities—lawn maintenance, rubbish control, yard art, external painting, on-site car repairs, and pet keeping, to name just a few—can constitute draws against, or investments in, the neighborhood commons.<sup>2</sup> Moreover, absent some constraint, owners might shift residential parcels into more in-

tensive and lucrative uses that would have pronounced effects on the local environment.

Public land use regulation (zoning) and private land use regulation (covenants) both attempt to manage the common resource of the local environment. These two approaches line up with the two dominant approaches that are usually prescribed for resolving commons dilemmas—governmental regulation (or “Leviathan”) and private property.<sup>3</sup> At another level, each can be understood as a version of the group-initiated arrangements that have often emerged within limited-access commons. Both sorts of land use controls are premised on the idea that property owners can be made better off as a group if each of them cedes some property rights to the community. While each owner gives up something in the process, he gains something that is at least potentially more valuable—his neighbors’ reciprocal concessions. Although land use controls can be quite effective in shutting down certain kinds of resource dilemmas, these devices can introduce problems of their own. One set of concerns—the effects that controls have on who locates within a given community—will be deferred to Part III. Here, I focus not on such “membership effects” but rather on what we might call “compliance effects”—the impacts of land use controls on what people do while living within the community.<sup>4</sup>

Ideally, we want households to be constrained from engaging in behavior on their property when, but only when, that behavior generates net social costs. Because both public and private land use controls operate primarily by banning inputs outright, they are relatively insensitive to differences in the balance of costs and benefits within categories of uses. While both types of land use controls contain political interfaces for toggling between permission and prohibition, neither offers a pricing mechanism or a bargaining platform capable of facilitating market interactions. The result is that prohibitions may inefficiently block behavior that would produce net social gains. Yet, lifting a prohibition across the board, even if politically possible, may produce net social losses. In other words, land use controls generally present communities with binary choices, and neither choice may produce efficient results. What is needed are mechanisms that will facilitate efficient bargains while protecting the parties against unwanted draws on the neighborhood environment.

In this chapter, I consider in a general way how traditional land use con-

-- End of Chapter 4 Excerpt --

# 6

## ASSOCIATION AND EXCLUSION

Part II considered the interhousehold difficulties that can arise *within* a given jurisdiction or neighborhood and explored how entitlements might be designed to address those problems. If we zoom out from this highly localized view to examine an entire metropolitan area, we see similarly structured strategic dilemmas playing out *between* communities. Although interjurisdictional conflicts can arise over a variety of issues, the most challenging and controversial of these involve the inclusion and exclusion of residents. In this part, I suggest that associational patterns can amount to resource dilemmas that might be usefully addressed with the theoretical tools of property.

### Compliance Effects and Membership Effects

Homeowners view their neighbors as extremely important inputs into their property values and residential consumption experiences. Accordingly, land use restrictions targeting the characteristics and behaviors of residents are ubiquitous. Although land use controls with associational purposes or effects are often discussed under the rubric of “exclusionary zoning,” that label can be confusing; it means different things to different people, often carries an emotional charge, and applies by its terms only to public land use controls. Instead, I want to distinguish between two fundamental ways that land use controls impact communities. First, land use controls can directly alter the actions of those people who would live in the

community whether or not the controls existed (“compliance effects”). Obviously, compliance with behavioral rules falls within this category, but so too does a household’s choice to purchase and pay property taxes on a house that meets local zoning standards (rather than some other home that it might have purchased in the absence of those standards). Second, land use controls can impact the community’s membership by actually changing who lives there, in terms of numbers, characteristics, or both (“membership effects”).<sup>1</sup> The same land use control can produce both sorts of impacts, and both effects are likely to be well represented within any overall scheme of public or private land regulation.

Part II focused primarily on the compliance effects of land use controls. As explored there, rules that limit choices within a community can avoid localized tragedies, but can also produce new inefficiencies. While sorting (a membership effect) was discussed as a potential response to these inefficiencies, its limitations required us to consider other ways to reduce the costs of compliance effects, such as through entitlement design. In this part, I shift my focus to the membership effects of land use controls. As we will see, controls can have membership effects even if no conscious intent to exclude is present. Moreover, these effects can involve not only keeping people out of the community but also attracting people to the community. Overt efforts by governments or private neighborhood associations to fence out unwanted residents thus account for only a subset of the membership effects of land use controls.

In Chapter 2, I surveyed some of the motivations for land use controls: apportioning property tax burdens among residents (“collecting”); controlling the behavior of people who choose to live in the neighborhood (“controlling”); facilitating the sorting of people into like-minded communities by providing information about local rules (“sorting”); and keeping people with particular characteristics, such as low incomes or wealth levels, from moving in (“screening”). While screening consciously involves membership effects, such effects can also be a by-product of measures that are primarily concerned with collecting or controlling. For example, a zoning restriction that is entirely premised on fiscal considerations will keep out families who cannot afford the “cover charge” of purchasing a particular sort of home just as surely as would a zoning restriction animated by outright snobbery. In addition, land use controls that appear to encour-

Excerpted from Chapter Eight, *The Unbounded Home: Property Values Beyond Property Lines* by Lee Anne Fennell, to be published in September 2009 by Yale University Press

# 8

## BREAKING UP THE BUNDLE

A few blocks from my home in Chicago stands the Original Rainbow Cone, an ice cream parlor in its eighty-third year that is famous among locals for its quirky namesake treat—five colorful flavors piled atop a single cone. Unsurprisingly, when I go there for ice cream, I am not required to buy an ownership stake in the business. My limited ownership bundle in the cone itself comes with some risks that are primarily under my control—melting mishaps or ice cream headaches—but the larger risks of running the enterprise are wisely left to Rainbow Cone’s owners. Much as I hope Rainbow Cone survives for many decades to come, I am not forced to place a monetary bet on that result in order to enjoy its products.

When I bought my house, however, I had to make just such a bet on the continuing viability of charming local businesses like Rainbow Cone, as well as on innumerable other factors—local housing trends, employment markets, regional growth patterns, larger economic forces affecting lending practices and interest rates, government decisions about highways, schools, land use, and public transit, and so on—all of which are likely to influence the resale price of my home. These gambles were unavoidable if I wanted to enjoy the consumption benefits of homeownership—which, as I explain below, differ in degree and kind from those of renting. As Andrew Caplin and his coauthors put it, “The current market does not allow a household to separate its housing investment decision from its housing consumption decision.”<sup>1</sup> To be sure, the expected value of the investment will be positive over time, but the variance in outcomes is high. More to

the point, it is unclear why I should be forced to gamble on factors lying wholly outside my control in order to consume homeownership, any more than I should be forced to invest in Rainbow Cone in order to consume ice cream. The mandatory investment component of homeownership has real consequences: households that lack the financial wherewithal or risk tolerance to bet on their local housing markets simply cannot become homeowners.

That current legal arrangements require homeowners to gamble on matters far beyond their sphere of influence and expertise is, on reflection, rather remarkable. Homeownership is widely viewed as one of the most important stabilizing forces in society, but it comes packaged with an enormous dose of investment risk that homeowners are almost entirely powerless to insure against or diversify away.<sup>2</sup> Homeowners typically have no other asset, aside from their own human capital, that makes up a larger share of their portfolios.<sup>3</sup> Thus, households routinely plow a hefty chunk of their wealth into what amounts to stock in a single, risky enterprise—the neighborhood housing market.<sup>4</sup> Placing all of the household's eggs in one basket not only runs counter to basic principles of portfolio diversification but also motivates basket-guarding behaviors that can have high social costs.<sup>5</sup> Those behaviors and their costs have been a primary focus of this book.

I have emphasized from the start that many of the factors that give the modern residence its value are located beyond the property's boundaries. We have seen how the tools households and communities employ to control those factors can misfire, creating new tragedies. We can now see how the very manner in which homeownership is configured contributes to the problem that lies at the core of these dilemmas—the mismatch between a homeowner's exposure and her control. Parts II and III worked on this problem from within the traditional paradigm of homeownership. There, I asked how we might design better mechanisms for addressing spillovers at both within-community and between-community scales, operating on the assumption that households would remain exposed to the full measure of positive and negative impacts. In this last part of the book, I rethink that assumption. Even with the best available spillover-management tools in place, households may not be the parties best positioned to bear the residual risks. Accordingly, I consider here the prospects for scaling back the homeowner's exposure to off-site risks that she cannot efficiently bear.

Endnotes Excerpted from *The Unbounded Home: Property Values Beyond Property Lines* by Lee Anne Fennell, to be published September 2009 by Yale University Press

Notes corresponding to the text excerpted above appear in plain text; shaded notes correspond to material that is not excerpted here.

These endnotes contain short citations; full citations appear in the book's bibliography, which is not included in this excerpt. Readers desiring additional bibliographic information should contact the author at lfennell@uchicago.edu.

## NOTES

### Introduction

1. U.S. Bureau of the Census, *Urban/Rural and Metropolitan/Nonmetropolitan Population: 2000*; U.S. Bureau of the Census, *Population: 1790 to 1990, United States, Urban and Rural*. The Census Bureau began using a new definition of “urban” in 1950, which somewhat increased (in that year, from 59.6 to 64.0) the percentage reported as falling in that category.

2. In 1900, fewer than half of the householders in the United States owned their own homes. U.S. Bureau of the Census, *Historical Census of Housing Tables: Homeownership*. In 2007, 68.1 percent of householders owned their own homes, including 66.8 percent of householders inside metropolitan statistical areas. U.S. Bureau of the Census, *Housing Vacancies and Homeownership, Annual Statistics: 2007*. The subprime crisis has produced some slippage in homeownership rates, however. See Swarns, “Rise in Renters” (reporting a drop to 67.8 percent in the first quarter of 2008, down from a high of 69.1 percent in 2005); U.S. Bureau of the Census, “Census Bureau Reports,” 1 (reporting a homeownership rate of 67.9 percent for the third quarter of 2008).

3. See, e.g., Singer, “Ownership Society” (discussing the “castle model” of ownership).

4. See Fischel, *Homevoter Hypothesis*, 9 (referencing homeowner risk aversion driven by the dominance of the home in the household’s portfolio).

5. See, e.g., Shiller, *Macro Markets*; Case, Shiller, and Weiss, “Index-Based Futures and Options”; Caplin et al., *Housing Partnerships*.

### Chapter One. Beyond Exclusion

1. Economists have given increased attention to this question in recent years. See, e.g., Shiller, *Macro Markets*; Case, Shiller, and Weiss, “Index-Based Futures and Options”; Caplin et al., *Housing Partnerships*. This topic is taken up in Part IV.

2. See, e.g., Grey, “Disintegration.”

3. Blackstone, *Commentaries*, 2:2. Sources characterizing Blackstone’s description as hyperbolic include Merrill and Smith, “What Happened,” 362; R. Ellickson, “Property in Land,” 1362, n. 237.

4. See, e.g., Schorr, “How Blackstone Became a Blackstonian.”

5. For example, Joseph Singer has identified the “core conception” that people hold about property as “absolute control . . . the ability to do what you like with your own, without having to account to anyone else for your actions.” Singer, *Entitlement*, 29.

6. The metaphor of a bundle of sticks or bundle of rights was introduced by the legal realists. See Singer, *Entitlement*, 9–10. It has been associated with the work of Tony Honoré and Wesley Hohfeld, among others. See Honoré, “Ownership”; Hohfeld, *Fundamental Legal Conceptions*, 36–42. For discussion of the development and implications of this metaphor, see generally Penner, “Bundle of Rights.”

7. “Granny flat” is a colloquial term for an “accessory dwelling unit” that can be rented out by the owner of the main dwelling unit. See Van Hemert, “Time to Update.”

8. See, e.g., Merrill and Smith, “What Happened”; Smith, “Property and Property Rules”; Penner, *Idea of Property*, 71–72. In some contexts, exclusion might be undertaken to deprive competitors of access to resources rather than to make use of those resources oneself. Here, the value of the exclusion would come from its impact on the excluder’s return on activities undertaken on or with *other* property. I thank Jonathan Nash for discussions on this point.

9. As Henry Smith has put it, law “delegates” the choice of uses to the property’s owner by granting her exclusive rights to the property. Smith, “Exclusion and Property Rules,” 974–75; 978–85.

10. *Ibid.*

11. See Cane, *Anatomy of Tort Law*, 142.

12. Property law’s *ad coelum* doctrine (*cujus est solum, ejus est usque ad coelum et ad infernos*—whoever owns the soil owns also to the sky and to the depths) is not taken literally in the case of ordinary overflights. See Dukeminier et al., *Property*, 126. In a case addressing the interaction between property law and federal statutory provisions governing navigable airspace, the Supreme Court concluded that “[f]lights over private land are not a taking, unless they are so low and so frequent as to be a direct and immediate interference with the enjoyment and use of the land.” *United States v. Causby*, 328 U.S. 256, 266 (1946). See also *Heller*, *Gridlock Economy*, 27–29.

13. Under existing tort doctrines, this would be an abnormally sensitive use that would not give rise to a cause of action. For example, *Amphitheaters, Inc. v. Portland Meadows*, 198 P.2d 847 (Or. 1948), affirmed a directed verdict for a defendant whose race-track lights interfered with plaintiff’s drive-in movie operation. There, the court discussed and applied the rule that “a man cannot increase the liabilities of his neighbor by applying his own property to special and delicate uses.” *Ibid.*, 854.

14. Cf. Kennedy and Michelman, “Are Property and Contract Efficient?” 760 (presenting “The Law of Conservation of Exposures”).

15. See Grey, “Disintegration”; Merrill and Smith, “What Happened.”

16. See Markby, *Elements of Law*, 158 (asserting that ownership “is no more conceived as an aggregate of distinct rights than a bucket of water is conceived as an aggregate of separate drops”), quoted in Smith, “Property and Property Rules,” 1760.

17. Smith, “Property and Property Rules,” 1760.

18. This characterization seems to follow from Markby’s discussion of the bucket analogy. See Markby, *Elements of Law*, 158–59 (characterizing the alienation of specific use privileges, such as to walk on land or graze cattle on it, as withdrawing drops from the bucket).

19. See Smith, “Property and Property Rules,” 1729 (“[O]wners make bets in situations of uncertainty and are rewarded or punished depending on how those bets turn out later when the uncertainty is resolved.”).

20. See Harris, *Property and Justice*, 33–34 (discussing “property-independent prohibitions”).

21. See R. Ellickson, “Property in Land,” 1322–35 (examining how the scale of occurrences unfolding on property relates to the placement of boundaries and the choice of ownership form).

22. Calabresi and Melamed, “Cathedral.”

23. See Coase, “Problem of Social Cost,” 2 (emphasizing the reciprocal nature of causation).

24. *Ibid.*, 15; see Calabresi and Melamed, “Cathedral,” 1094–97.

25. See Calabresi and Melamed, “Cathedral,” 1092, 1106, 1116 (discussing property rules); *ibid.*, 1092, 1108–9 (discussing liability rules). Calabresi and Melamed also discussed a third category of entitlements, those that are inalienable. *Ibid.*, 1111–15. Calabresi and Melamed did not include a grid in their article, but their successors derived one from their textual discussion. See *ibid.*, 1115–18; Michelman, “There Have to Be Four,” 142–46.

26. See Calabresi and Melamed, “Cathedral,” 1116. The approach suggested by Calabresi and Melamed’s fourth rule had made an earlier appearance in a student note. Atwood, “Land Use Conflicts,” 315, cited in Calabresi, “Simple Virtues,” 2204 and n. 10.

27. *Spur Indus. v. Del E. Webb Dev. Co.*, 494 P.2d 700 (Ariz. 1972).

28. For an overview of the literature employing the Calabresi and Melamed framework, see Smith, “Property and Property Rules,” 1720–22.

29. Building on the Calabresi and Melamed framework, Saul Levmore identified sixteen ways that remedies might be structured, and Madeline Morris presented fourteen different entitlement forms. See Levmore, “Unifying Remedies”; Morris, “Structure of Entitlements.” Other examples of work expanding and elaborating on the original set of entitlements include Ayres, *Optional Law*; Coleman and Kraus, “Rethinking the Theory of Legal Rights,” 1347–52; Krier and Schwab, “Another Light,” 470–75; Polinsky, “Resolving Nuisance Disputes,” 1087–88.

30. This input/outcome distinction tracks a number of distinctions that have been drawn in the law and economics literature—between *ex ante* and *ex post* approaches, between risk-based and harm-based approaches, and between regulation and liability. See, e.g., Wittman, “Prior Regulation versus Post Liability”; Porat and Stein, *Tort Liability under Uncertainty*, 103–10 (comparing “risk-based liability” and “damage-based

liability”); Shavell, “Liability for Harm versus Regulation of Safety”; Innes, “Choice between Ex-Post Liability and Ex-Ante Regulation.”

31. See, e.g., Cane, *Anatomy of Tort Law*, 217; Coleman and Kraus, “Rethinking the Theory of Legal Rights,” 1370–71.

32. Rose, “Shadow,” 2181–82.

33. See Cooter, “Unity in Tort, Contract, and Property,” 14 (explaining how invariant damage awards (such as liquidated damages in contract) can induce efficient behavior).

34. See *ibid.*, 3–4 (explaining how compensation externalizes costs).

35. See, e.g., *Economist*, “Come Rain or Come Shine”; CME Weather Products, <http://www.cme.com/trading/prd/weather/>.

36. *Boomer v. Atlantic Cement Co.*, 257 N.E.2d 870, 876 (N.Y. 1970) (Jasen, J., dissenting).

37. See R. Ellickson, “Property in Land,” 1400 (“A land regime that is efficient for a small group might conceivably cause significant extraterritorial spillover effects that harm outsiders so much that the regime is undesirable from a broader social perspective.”).

## Chapter Two. Constructing the Home

1. The elements bundled together in the home purchase, although variously delineated, have been well noted in the literature. See, e.g., Rose-Ackerman, “Beyond Tiebout,” 74; Jackson, “Public Needs,” 6; Walters, *Noise and Prices*, 29; Pozdena, *Modern Economics of Housing*, 43–44, 82; The Kaiser Committee, “A Decent Home,” 186; Fox, *Conceptualising Home*, 142–77. Richard Thompson Ford has made the related point that “political geography” is itself a bundled product whose components are not necessarily those that residents would choose “if they could order à la carte.” Ford, “Geography and Sovereignty,” 1411–12. See also Logan and Molotch, *Urban Fortunes*, 103–10 (cataloguing six aspects of neighborhood “use values”).

2. Quadeer, “Nature of Urban Land,” 171–72.

3. Tiebout, “A Pure Theory of Local Expenditures.”

4. For a discussion of agglomeration benefits and associated tradeoffs with congestion costs, see, e.g., R. Ellickson, “Suburban Growth Controls,” 442–43. Technological and social changes affect the need for, as well as the nature and cost of, agglomeration. See, e.g., Glaeser, Kolko and Saiz, “Consumers and Cities”; Webber, “Order in Diversity,” 37.

5. Tiebout, “A Pure Theory of Local Expenditures,” 422 (“Spatial mobility provides the local public-goods counterpart to the private market’s shopping trip.”).

6. See Yinger, “Capitalization and the Median Voter,” 101. My discussion will be limited to home purchases; leaseholds raise somewhat different issues. See Ross and Yinger, “Sorting and Voting,” 2020.

7. Figure 2-2 was inspired by a similar figure in R. Ellickson, “Property in Land,” that was used to illustrate the impact of events of different scales on decisions about property ownership regimes. *Ibid.*, 1325, fig. 2. See also Buchanan and Flowers, *Public Finances*, 438 fig. 36-1; 441 fig. 36-2 (illustrating through sets of concentric shapes the spillover range of various goods provided privately and at various governmental levels).

61. See Smith, “Semicommon Property Rights.”

62. For an overlapping but somewhat broader use of the term “neighborhood commons,” see Karkkainen, “Zoning,” 25–26.

### Chapter Four. Managing the Neighborhood Commons

1. R. Ellickson, “Unpacking the Household,” 277–87; 319–20; see also R. Ellickson, *The Household*.

2. See Karkkainen, “Zoning,” 26. Whether something counts as a “draw” against ambience depends, of course, on societal judgments, which are mutable. See Mahoney, “Perpetual Restrictions,” 759–63; cf. Bruegmann, “Urban Density,” 177.

3. See Ostrom, *Governing the Commons*, 8–13. Ostrom critiques this dichotomous thinking and examines successful local institutional arrangements that do not fit neatly into either model. See *ibid.*, 13–23.

4. See Pogodzinski and Sass, “Economic Theory of Zoning,” 295 (distinguishing between “direct effects” of zoning and “effects via mobility”); my Chapter 6 (elaborating on the distinction between compliance effects and membership effects).

5. Nelson, *Zoning and Property Rights*, 15–18.

6. See, e.g., Dana, “Land Use Regulation,” 1286–99; Rose, “Planning and Dealing.”

7. *Euclid v. Ambler Realty*, 272 U.S. 365 (1926); see Ellickson and Been, *Land Use Controls*, 74–75.

8. See, e.g., Nelson, *Zoning and Property Rights*, 22–83; Ellickson and Been, *Land Use Controls*, 74–76.

9. See, e.g., Nolon, “*Golden* and Its Emanations,” 31 (observing that “[d]espite its promise and growing relevance in an environmentally challenged society, performance zoning has not gained wide acceptance”). For background on performance zoning, see, e.g., *ibid.*, 30–32; Kendig, *Performance Zoning*; Acker, “Performance Zoning.” See also Jacobs, *Dark Age Ahead*, 153–56 (discussing advantages of a “performance code” over prohibitions on uses).

10. See, e.g., Ellickson and Been, *Land Use Controls*, 90–91. For example, under cumulative zoning, an R-1 zone might permit single-family homes on lots of at least a quarter acre, an R-2 zone might additionally permit single-family homes on smaller lots as well as duplexes and triplexes, and an R-3 zone might permit apartment buildings in addition to the uses permitted in R-2 and R-1.

11. See Callies, Freilich, and Roberts, *Land Use*, 48–49 (explaining that under cumulative zoning, “the heavy industrial zone—typically at the bottom of the zoning ‘pyramid,’ would permit just about anything”).

12. See, e.g., Ellickson and Been, *Land Use Controls*, 92–94.

13. *Nollan v. Cal. Coastal Comm’n*, 483 U.S. 825, 837 (1987); *Dolan v. City of Tigard*, 512 U.S. 374, 391 (1994).

14. Fennell, “Hard Bargains and Real Steals.” During my tenure as associate counsel at the State and Local Legal Center, I worked on an amicus brief that was filed in *Dolan v. City of Tigard* on behalf of the National Association of Counties et al.—a fact

inducing valuations is merely to spread burdens fairly, rather than to internalize externalities. For analysis of how relating the tax rate to the probability that property will be taken at various valuation levels induces honest valuations, see Plassmann and Tideman, “Accurate Valuation.”

41. Scholars have observed that developers would be expected to select only those restrictions that add net value for buyers. See, e.g., Barzel, *Economic Analysis of Property Rights*, 115; R. Ellickson, “Alternatives to Zoning,” 713.

42. See, e.g., Fennell, “Contracting Communities,” 851 n. 95; Weiser, “Real Estate Covenant as Commons,” 299–300 (discussing impediments to developer innovation).

43. See Weiss and Watts, “Community Builders and Community Associations,” 101–2 (explaining that “[d]evelopers creating associations increasingly are responding to local governments’ subdivision regulations rather than to the home buyers’ interests,” diluting the “market-driven rationale”).

## Chapter Six. Association and Exclusion

1. See Pogodzinski and Sass, “Economic Theory of Zoning,” 295 (similarly distinguishing “direct” effects of land use controls from those effects that are produced by mobility).

2. Strahilevitz, “Exclusionary Amenities” (analyzing amenity choice as an exclusionary mechanism); *ibid.*, 464–76 (examining the golf example).

3. See, e.g., Stiglitz, “Theory of Local Public Goods,” 46; Pozdena, *Modern Economics of Housing*, 53.

4. See, e.g., Schelling, *Micromotives and Macrobehavior*, 137–66; Schelling, “Dynamic Models.”

5. Cf. Cook and Ludwig, “Assigning Deviant Youths,” 29–31 (distinguishing “system-level” studies from “mover” studies that look only at the impact of a grouping change on those experiencing the change).

6. The example is not a fanciful one: many common interest communities limit exterior paint colors, and some municipalities, such as Coral Gables, Florida, do so as well. See City of Coral Gables, “So You Want to Paint Your House.”

7. See, e.g., Schwab and Zampelli, “Disentangling the Demand Function,” 246–47; cf. Réaume, “Rights to Public Goods,” 15 (discussing goods, such as culture, that “unite production and consumption”).

8. See Oates, “Population Flows,” 205 (noting that “characteristics of the individuals of the community are themselves a critical determinant of the level of local services”); Manski, “Educational Choice,” 356 (addressing the role of student interactions in the production of education); Schwab and Oates, “Community Composition,” 218 (referencing studies that support the idea “that the level of attainment in a school system or the level of safety in a neighborhood depends not so much on the instructional staff or frequency of police patrols as on the characteristics of the residents of the jurisdiction”); Schwab and Zampelli, “Disentangling the Demand Function,” 254 (noting the role of the income level of residents in the demand and supply of public safety).

9. See, e.g., Chubb and Moe, *America’s Schools*, 119 (“Researchers have found that

54. I thank Jed Rubenfeld for helpful comments on this point.

55. The argument that localities should internalize the effects of their exclusion is interestingly explored in Schragger, “Paying for Our Localism.” For discussion and citations on the competitive use of exclusion, see Fennell, “Exclusion’s Attraction.” Competitive exclusion need not involve excluding uses from the whole jurisdiction; it can also be pursued through intrajurisdictional zoning choices. See, e.g., Ford, “Boundaries of Race,” 1854.

56. For analysis of the implications of these sorts of assemblies, see, e.g., Peñalver, “Property as Entrance,” 1940–44; Hills, “Constitutional Rights of Private Governments,” 218–29; Stolzenberg, “He Drew a Circle That Shut Me Out,” 588–98.

57. Strahilevitz, “Rights to Exclude,” 1850–53.

58. On the many motives behind exclusion, see, e.g., Dietderich, “Egalitarian’s Market,” 31; Bogart, “Big Teeth,” 1671–72; Oates, “On Local Finance,” 96; Hansmann, “Theory of Status Organizations,” 119.

59. Under the federal Fair Housing Act, as under Title VII of the Civil Rights Act of 1964, discrimination can be established through disparate impact analysis without the need to show discriminatory intent. See, e.g., *Huntington Branch NAACP v. Town of Huntington*, 844 F.2d 926, 933–41 (2d Cir 1988), *aff’d* 488 U.S. 15 (1988) (per curiam). However, it is relatively difficult for plaintiffs to prevail under this standard, and it has produced limited results. See generally Selmi, “Was the Disparate Impact Theory a Mistake?”

60. See Selmi, “Was the Disparate Impact Theory a Mistake?” 767–82 (suggesting that the disparate impact theory of discrimination may have been counterproductive to the extent that it impeded the development of a more robust understanding of intentional discrimination).

## Chapter Eight. Breaking Up the Bundle

1. Caplin et al., *Housing Partnerships*, 80.

2. See, e.g., Fischel, *Homevoter Hypothesis*, 9–10, 268; Shiller, *Macro Markets*, 78.

3. See, e.g., Fischel, *Homevoter Hypothesis*, 4; Bucks, Kennickell, and Moore, “Recent Changes.” On human capital, see R. Ellickson, “Property in Land,” 1353.

4. See, e.g., Fischel, “Why Are There NIMBYs?” 146 (likening a home purchase to the investment of nearly all one’s assets in “a single firm that produce[s] one product in a single location”).

5. See, e.g., *ibid.*

6. As a result of excesses in lending practices in recent years, millions of U.S. homeowners have mortgages that they cannot afford to repay; with refinancing out of reach due to declining home values, and loan restructuring inhibited by securitization, default rates have skyrocketed. Research firm Moody’s Economy.com projects that mortgage foreclosures could reach 7.3 million between 2008 and 2010, with as many as 4.3 million American homeowners losing their homes. Crittenden and Holzer, “Relief Nears.” Governmental efforts to respond to the housing crisis are ongoing as of this writing. See, e.g., Phillips and Simon, “Mortgage Bailout.”