

CO-LOCATION, CO-LOCATION, CO-LOCATION: LAND USE AND HOUSING PRIORITIES REIMAGINED

Lee Anne Fennell^{*†}

INTRODUCTION

It is a great honor to deliver the Norman Williams lecture, and I appreciate you all choosing to co-locate yourselves here with me this evening. Everyone knows the three most important factors in choosing a home: location, location, location. In my talk today, I hope to convince you that's not quite right. What matters most when it comes to housing is not location, in the sense of a geographic map point, but rather co-location, or a home's position relative to other land uses and land users.¹ This elaboration might seem obvious and trivial, but it turns out to matter a great deal, and in ways that have not been fully recognized. Taking co-location seriously changes the way we think about land use possibilities and priorities. And it can transform our thinking about housing.

This talk comes in three steps. First, I want to explain what I mean by co-location, and why it matters—not just in dense urban centers but also in small towns, rural and agricultural areas, and even in places of great natural beauty like Vermont. Next, I will articulate some land use principles that follow from recognizing the primacy of co-location. Finally, I will offer some specific policy approaches that can leverage the power of co-location.

I. WHAT IS CO-LOCATION AND WHY DO WE CARE?

Let's start with a thought experiment. Picture your house or apartment or condo. Think about the boundaries of your property holding, the edges of what the law says you own. Now imagine someone with a giant eraser comes along and removes every man-made element within a fifty-mile

* Max Pam Professor of Law, University of Chicago Law School. A number of the ideas explored in this lecture have been developed in my prior and forthcoming work. *See, e.g.*, Lee Anne Fennell, *Lumpy Property*, 160 U. PA. L. REV. 1955, 1977–78 (2012); Lee Anne Fennell, *Agglomerama*, 2014 BYU L. REV. (forthcoming). The text of the lecture has been modified slightly for publication and sources have been added. For helpful comments, questions, and conversations, I thank John Echeverria, William Fischel, Marc Mihaly, Sean Nolon, Melissa Scanlon, Kinvin Wroth, and the lecture attendees. I am grateful for financial support from the Stuart C. and JoAnn Nathan and Harold J. Green Faculty Funds and the Lynde and Harry Bradley Foundation.

† 10th Annual Norman Williams Lecture in Land Use Planning and the Law, April 9, 2014.

1. For other recent treatments focusing on the significance of co-location, *see, e.g.*, David Schleicher, *The City as a Law and Economic Subject*, 2010 U. ILL. L. REV. 1507, 1509–10, 1515–29 (2010); Daniel B. Rodriguez & David Schleicher, *The Location Market*, 19 GEO. MASON L. REV. 637 (2012).

radius of your home's property boundaries. Everything that used to be there—schools, restaurants, auto dealerships, ski resorts, your neighbors' houses, this building, the roads, the sidewalks, the parking lots, all of it—is now gone. This eraser also subtracts the populations that go with all those land uses. Something very profound has happened to your home, even though nothing within the boundaries of your property has been touched, and your house remains rooted in the same physical location.

The point is simple: The structure and parcel is not your home, in an important sense. Your home encompasses a profusion of elements that surround the property itself and affect its value.² Location only has meaning to the extent that we make assumptions about what is happening in the adjacent areas. This seems obviously true in urban centers like Chicago. Economists speak of agglomeration benefits that come from getting lots of people and ideas and products and services and employment opportunities all together in one place.³ We thus tend to associate the benefits of co-location with the energy and excitement of a dense big city, but the point is a much more general one.⁴

Consider a place like Vermont, with beautiful natural features. It might seem that a home's value in such a place is mostly about geographic location relative to natural features like mountain ranges. To put it in my terms, you might say that the only co-location that matters is co-location with the mountains, and the mountains aren't going anywhere. But think again about the value that is added by mountains, such as scenic vistas and recreational opportunities. The ability to enjoy the mountains depends on the right mix of access to them and protection of them—and the way that mix is managed comes down to who and what is nearby. Are there ski resorts? How intensively developed? How about the neighbors? How many are there? Occupying what structures? Are they here year-round or seasonally? What restaurants and shops are nearby? Who works in them, and where do they live? And what about transportation infrastructure, the roads that get you up and down and through the mountains?

2. See generally LEE ANNE FENNELL, *THE UNBOUNDED HOME* (2009).

3. See, e.g., ALFRED MARSHALL, *PRINCIPLES OF ECONOMICS* IV.X.7–13 §3 (8th ed. 1920), available at <http://www.econlib.org/library/Marshall/marP.html>; EDWARD L. GLAESER, *CITIES, AGGLOMERATION, AND SPATIAL EQUILIBRIUM* 6–8, 117 (2008); see also Schleicher, *supra* note 1, at 1509–10, 1515–29 (providing an overview of the legal and economic literature relating to agglomeration).

4. Although agglomeration economics focuses on the benefits (and costs) of clustering together in cities and urban areas, the broader point is about putting together complementary elements in time and space. See *infra* Part II.A.

So regardless of what kind of setting we're talking about, land use is highly interdependent, and co-location is the primary concern. Each use generates its own mix of benefits and detriments for the surrounding area, and—as long as it's there—blocks innumerable other possible uses of the same land, for better or worse. The law is always intensely involved in mediating, channeling, and controlling co-location, even if it is not doing so explicitly. Can it do better?

Historically, land use law has focused on addressing land use conflicts. Land use conflicts are fundamentally co-location problems. Consider *Sturges v. Bridgman*, a classic co-location fail that was explored by Ronald Coase in his groundbreaking paper, *The Problem of Social Cost*.⁵ Dr. Sturges decided to add a consulting room to the back of his property. Bridgman was a confectioner whose candy-making operations created vibrations that disturbed Sturges's practice.⁶ Either use would be fine on its own, or combined with innumerable other uses, but this specific combination was problematic. The court ruled for the doctor, finding the confectioner's operations were a nuisance.⁷ Even though those operations would not be a nuisance in all times and places, they became one here, given the added ingredient of the physician's office. The idea of problematic combinations is a recurring theme in land use law. Justice Sutherland, writing for the Supreme Court in *Village of Euclid v. Ambler Realty*, the case upholding the constitutionality of zoning, put it this way: "A nuisance may be merely a right thing in the wrong place,—like a pig in the parlor instead of the barnyard."⁸ There's nothing wrong with the pig in the abstract or the parlor in the abstract, it's the combination, the co-location, that causes trouble.

Co-location is not always about conflict, even though that's where the law has usually focused its attention. It is true that breaking apart incompatible uses can increase value. But so too can putting together uses that complement and benefit each other. Indeed, co-location is what gives housing most of its value. Fostering patterns of complementary uses that produce positive synergies is as an important a project for the law as keeping apart uses that conflict with each other.⁹ That's true whether we are

5. R.H. Coase, *The Problem of Social Cost*, 3 J. L. & ECON. 1, 8–10 (1960) (citing and discussing *Sturges v. Bridgman*, 11 Ch. D. 852 (Eng. 1879)).

6. *Id.* at 8–9 (citing *Sturges*, 11 Ch. D. at 852–53).

7. *Id.* at 9 (citing *Sturges*, 11 Ch. D. at 859).

8. *Vill. of Euclid v. Ambler Realty*, 272 U.S. 365, 388 (1926).

9. This point has been emphasized in recent legal scholarship on agglomeration economies. See, e.g., Gideon Parchomovsky & Peter Siegelman, *Cities, Property, and Positive Externalities*, 54 WM. & MARY L. REV. 211, 214–20, 236–60, 246–60 (2012) (focusing on the significance of positive

talking about creating lively urban districts or preserving habitats or sustainably developing natural or rural areas. These two projects—separating conflicts and putting together complements—blend into each other: A use can be in the wrong place not only when it has negative spillovers for its neighbors, but also when it impedes putting together a cluster or chunk of uses that will together generate more value.¹⁰ The “pig in the parlor” might be a road that breaks up a wildlife corridor or a vacant lot in the middle of an area that is striving for vibrancy.

II. CO-LOCATION LAND USE PRINCIPLES

How does a focus on co-location change our thinking about land use? I will suggest three ways in which it does so. First, it reminds us that “chunks”—packages of complementary uses—matter. Second, it focuses attention on the importance of coordinating land uses to achieve valuable chunks. Finally, it highlights the real problem at the heart of the most interesting and difficult land use conflicts: that producing some chunks of value requires breaking apart others.¹¹

A. Chunks Matter

A focus on co-location prompts us to consider how combinations of uses and users produce value. Or, to put it more simply, it impresses upon us that chunks matter. Consider a bridge, and how it produces value. Suppose you have a chasm that is ten bridge-segments long. How do the segments generate value? Well, you need the whole bridge. Nine segments is next to worthless, except as unusual urban art, or possibly for filming chase scenes involving airborne cars. For most of us, a partial bridge is not a useful thing at all. A bridge is a standard example of what economists call a “lumpy good.”¹²

externalities for cities and discussing one approach for addressing them). Legal interventions may not always be necessary to produce these complementary patterns, however; private coordination may suffice in some cases. See Rodriguez & Schleicher, *supra* note 1, at 656–62.

10. See, e.g., Lee Anne Fennell, *Agglomerama*, 2014 BYU L. REV. (forthcoming); Ronit Levine-Schnur, *Agreements Between Local Governments and Private Entrepreneurs as a Means for Urban Development* 43–54, 157–66 (Aug. 2014) (unpublished dissertation, Hebrew University of Jerusalem) (on file with author).

11. See, e.g., Lee Anne Fennell, *Lumpy Property*, 160 U. PA. L. REV. 1955, 1977–78 (2012) (giving the example of cotenancy partition actions in which either a spatial or temporal lump of value must be broken apart).

12. See, e.g., Michael Taylor & Hugh Ward, *Chickens, Whales, and Lumpy Goods: Alternative Models of Public-Goods Provision*, 30 POL. STUD. 350, 353 (1982) (describing goods that can be

Some land uses are like this. When you want a highway or a railroad, it won't do to have missing segments. This is pretty well understood, and it's a key reason we have eminent domain.¹³ But what if you have a portion of a city that just isn't very lively right now and you want to make it so? What will it take? Maybe you need a critical mass of shops, a certain amount of variety, before the area really starts to generate foot traffic and interest. The same is true for things like habitat preservation. If larger chunks of habitat facilitate more activity within the preserved area by reducing the disruptions associated with edges, the goal cannot simply be to preserve X total acres of habitat—the configuration matters.¹⁴ We might say something similar about a community or a neighborhood, where the whole is greater than the sum of the parts. The question is an empirical one, but perhaps value among nearby households tends to grow over time, so that breaking up a longstanding neighborhood is especially damaging.¹⁵

B. Coordination Matters

A corollary of the idea that chunks matter is the point that coordination matters. Here is a concrete example to illustrate, borrowed from Robert Ellickson and Vicki Been's land use casebook.¹⁶ Imagine an area filled with vineyards that would be more valuable shifted to residential use—but only if the shift is total.¹⁷ Moving a few vineyards into residential use turns out to be a terrible idea. You'd have isolated houses without the necessary infrastructure, and they'd break up the landscape that was previously given over to vineyards. Houses spoil the atmosphere for vineyard tours and the

provided “only in more or less massive ‘lumps’”); RUSSELL HARDIN, *COLLECTIVE ACTION* 59 (1982) (noting and qualifying the example of a bridge as a “single-step good[.]”).

13. See, e.g., Thomas W. Merrill, *The Economics of Public Use*, 72 *CORNELL L. REV.* 61 (1986).

14. See, e.g., Todd G. Olson et al., *The Habitat Transaction Method: A Proposal for Creating Tradable Credits in Endangered Species Habitat*, in *BUILDING ECONOMIC INCENTIVES INTO THE ENDANGERED SPECIES ACT* 27, 28–30 (Hank Fischer & Wendy Hudson eds., 1994) (presenting the “habitat transaction method” which takes into account the shape and contiguity of “habitat patches”); see generally Jonathan Remy Nash, *Trading Species: A New Direction for Habitat Trading Programs*, 32 *COLUM. J. ENVTL. L.* 1 (2007) (noting spatial and temporal differentiation among units of habitat, and discussing and critiquing the habitat transaction method and variations on it).

15. See Margaret Jane Radin, *Residential Rent Control*, 15 *PHIL. & PUB. AFF.* 350, 368–71 (1986) (suggesting that a concern with maintaining the continuity of a community could support rent control).

16. ROBERT C. ELICKSON & VICKI L. BEEN, *LAND USE CONTROLS* 40 (3d ed. 2005).

17. See *id.* (posing a hypothetical in which “social welfare would be maximized if all Napa vineyards were converted en masse to housing development” but “a partial-housing outcome in the Napa Valley would be even less efficient than an all-vineyard allocation”).

vineyards ensure that the homeowners have to go a great distance to work or shop or even visit each other. It is the worst of both worlds. If we proceeded cautiously by introducing a small grouping of homes into the vineyard area, the results would be awful.¹⁸ It would be similar to building half a bridge. Changing over the area entirely might be a totally different story.¹⁹ Now there is enough density of housing to support the services and infrastructure that households need. A whole chunk of vineyard vistas are lost but this may increase support for keeping another chunk unspoiled elsewhere.

This example assumes that we are better off moving from all vineyards to all housing, but the point is a conceptual one that applies regardless of what the most valuable use might be.²⁰ In places like Detroit where there are many vacant lots, we might have the reverse story.²¹ It might be better for an area that is now residential to be given over to some low-intensity use such as parkland. But it probably doesn't work out well to do this piecemeal. Vacant lots interspersed with occupied houses do not a good parkland make.²² The point goes back to co-location: Parkland may be most useful when co-located with other parkland. The value of animal habitats, open vistas, and agricultural uses likewise depend on the scale at which they exist. It follows that changes must be made at the right scale, if they are to be made at all.

18. And, in fact, such intermediate steps might not ever occur. *See id.* (explaining that on the assumptions given, “landowners might not be able to bargain their way away from the status quo” because, for example, “neighboring vintners would be able to offer the first-arriving housing developer enough to stop the developer’s incremental introduction of housing into the vineyards”).

19. Yet, without some form of coordination, this result may never occur. *See id.* (“Although a complete shift to the all-housing outcome would be efficient, market forces would tend to stymie any first steps in that direction.”).

20. The economic term given to the general issue is “nonconvexities in production possibilities.” *See id.*; *see also* ROBERT COOTER & THOMAS ULEN, *LAW AND ECONOMICS* 170–73 & figs.5.5 & 5.7 (3d ed. 2000) (explaining and depicting this principle). At a broader level of generality, the point is one about complementarities—the capacity for particular combinations of uses (whether all of a given use, as in the examples above, or an optimal mix of different uses) to generate greater value than other combinations would generate.

21. *See, e.g.*, John Gallagher, *With So Much Space, So Few Options—Detroit’s Vast Vacant Lots Are a Burden*, *DETROIT FREE PRESS* (Apr. 1, 2012), <http://archive.freep.com/article/20120401/NEWS01/204010467/With-so-much-space-so-few-options-Detroit-s-vast-vacant-lots-are-a-burden>.

22. *See, e.g.*, SMART GROWTH PROGRAM, OFFICE OF SUSTAINABLE CMTYS., U.S. ENVTL. PROTECTION AGENCY, *MANAGING VACANT AND ABANDONED PROPERTY IN THE GREEN ZONE OF SAGINAW, MICHIGAN* 8–10 (2014), *available at* <http://www.epa.gov/smartgrowth/pdf/sgia/Saginaw-SGIA-Report-Final-071614.pdf> (discussing possible ways to use vacant land, including uses that require assembling multiple contiguous parcels).

C. Conflict Matters Too

People's preferences about co-location often conflict: Each choice about co-location rules out many other preferred co-location possibilities. And the most interesting and difficult land use conflicts come down to chunk versus chunk: community or highway, shopping district or habitat, cohesive historic neighborhood or affordable housing in close proximity to workplaces. Which chunk should win out? In part, the answer may depend on whether one chunk is easier to move than another, or loses less value when divided up than another. But the central point I want to make is that we cannot avoid these conflicts, and that we will do better at resolving them if we recognize more clearly what is at stake.

To take a very simple example, suppose there is a neighborhood that is also a good place for a highway. We focus, quite appropriately, on the displacement that would occur as a result of building the highway.²³ Sometimes we also focus on the newly placed highway, which may have negative spillovers for the remaining neighbors.²⁴ But there is another effect, which I call unplacement, which simply comes from breaking up the old neighborhood and leaving only a portion of it behind.²⁵

This leads to the counterintuitive thought that what may be most disturbing about eminent domain and gentrification is not that they displace people, but rather that they break apart a cohesive unit. Community is destroyed precisely because it is divided up, with some displaced and some remaining in a place that has been greatly changed. This suggests something interesting: that the damage associated with certain land use

23. Indeed, concerns about displacement may shape decisions about where to locate highways. See Nicole Stelle Garnett, *The Neglected Political Economy of Eminent Domain*, 105 MICH. L. REV. 101, 110–21 (2006) (using the placement of Chicago's expressways as a potential illustration of the principle that governments will avoid taking high subjective value property that is important to a tight-knit community, if the community has sufficient political power).

24. See, e.g., Abraham Bell & Gideon Parchomovsky, *Takings Reassessed*, 87 VA. L. REV. 277, 279–81, 290–94 (2001) (defining “derivative takings” as “externalities produced by takings” and arguing that they should be compensated).

25. Abraham Bell and Gideon Parchomovsky's notion of “derivative takings” could be cast broadly enough to reach these costs. See Garnett, *supra* note 23, at 119 (describing “derivative takings” as including impacts such as “noise, fumes, physical separation from their neighbors, [and] decreased property values” attributable to nearby condemnations) (citing Abraham Bell & Gideon Parchomovsky, *Givings*, 111 YALE L.J. 547, 559 (2001)). For a good illustration of how breaking up a community can reduce the subjective value that homeowners have in their homes, see Gideon Parchomovsky & Peter Siegelman, *Selling Mayberry: Communities and Individuals in Law and Economics*, 92 CAL. L. REV. 75, 113–24 (2004) (discussing the role of “community externalities” in precluding holdout behavior and facilitating a power company's acquisition of a small town). See also Garnett, *supra* note 23, at 119–20 (describing losses to communities that occurred when expressways cut through parish boundaries).

changes may depend in part on the scale at which the displacement occurs and whether relocation is undertaken to preserve the relative position of people and uses. This is not to suggest that the harm of displacement can be avoided by simply displacing more people. What it does mean, though, is that what might seem on the surface to be the least harmful eminent domain policy, that of displacing as few families as possible, may appear artificially cheap to the government because it doesn't account for the breaking apart of synergies that are together generating value.²⁶

Displacement and unplacement are not the only ways that co-location is disrupted, however. There is a third problem, which I'll call nonplacement.²⁷ These are the co-locations that cannot happen because of existing patterns of ownership and occupancy. This problem is easily illustrated by the party of eight that arrives at a restaurant and cannot be seated together because the only available seats are in scattered two-person tables. Other examples include households that can't locate near their preferred school because no affordable options exist, businesses that can't locate near enough each other to generate adequate foot traffic, and animals who can't locate together in habitats large enough to sustain populations.

If we focus only on displacement and unplacement, we are implicitly privileging current possession—granting priority to those who happen to be in place in the present moment, and disregarding the interests of those who didn't get that opportunity, or who lost that opportunity long ago to the people presently on site.²⁸ Property and land use law does often privilege getting there first (this was the theme of a recent Williams lecture by Joseph Sax),²⁹ and we have all heard that possession is nine-tenths of the law.³⁰ There may be psychological reasons to favor letting those who are in place

26. See Abraham Bell & Gideon Parchomovsky, *Reconfiguring Property in Three Dimensions*, 75 U. CHI. L. REV. 1015, 1064–65 (2008) (criticizing a “minimalist” approach of taking as little as possible through eminent domain on the grounds that it breaks up cohesive assets and diminishes the value of the remainder).

27. This idea relates to the claim that there is an insufficient amount of land assembly. See, e.g., Michael Heller & Rick Hills, *Land Assembly Districts*, 121 HARV. L. REV. 1465, 1497 (2008) (referencing “the social waste that comes from underassembly of land”). Although it is a difficult empirical question whether we have too little land assembly, it is certainly the case that existing configurations can block new configurations and that they therefore carry an opportunity cost.

28. There may be reasons to engage in just such privileging in some instances. See Radin, *supra* note 15, at 368–71. But we should be clear about what we are doing.

29. Joseph L. Sax, *The Property Rights Sweepstakes: Has Anyone Held the Winning Ticket?*, 34 VT. L. REV. 157, 163–71 (2009) (comparing space-based and time-based systems of appropriation and observing the ways in which our system embodies the latter).

30. For a recent critical exploration of this adage, see Carol M. Rose, *The Law Is Nine-Tenths of Possession: An Adage Turned on Its Head*, in *THE LAW AND ECONOMICS OF POSSESSION* (Yun-chien Chang ed., forthcoming 2015), draft available at <http://ssrn.com/abstract=2435329>.

hang onto what they have, but those considerations do not automatically trump all other interests.³¹ We can and should pay attention to nonplacement as well as displacement and unplacement.

Making these tradeoffs should cause land use regulators and planners to consider questions of permanence and portability. Which uses absolutely must stay put? Which uses can move? A focus on co-location refines this inquiry.

III. POLICY DIRECTIONS

So what does a focus on co-location tell us about land use and housing going forward? I started this talk with the bold claim that this slight change in perspective could be transformative. How so? I have three points that I hope will provide some food for thought. First, thinking about co-location changes our understanding of what counts as housing policy. Second, it prompts us to think more creatively about coordinating uses. Third, it pushes us to plan for change over time in a more conscious manner.

A. Reimagining the Boundaries of Housing Policy

Here it is helpful to observe that “housing” is an inexact term for a bundle of services that people regularly or episodically seek in their homes—not just shelter, privacy, and storage, but also facilities for child-rearing, pet care, meal production and consumption, personal hygiene and clothing maintenance, recreation and exercise, education and work, guest accommodation, event hosting, and more.³² Because many of these functions can be fulfilled outside the home, in whole or part, choosing a home entails determining the scope or domain of the home—what functions it will serve.³³ The quality and availability of public or private services outside the home that can fulfill these functions will bear on this decision. We don’t normally think of preserving land for public parks or zoning for laundromats as constituting housing policy, but we should. Services and amenities that are co-located near the private spaces used as homes can alter what it is that we need housing to do, and this in turn can affect what sorts

31. For a critical perspective on the costs of displacement from the home, see, for example, Stephanie M. Stern, *Residential Protectionism and the Legal Mythology of Home*, 107 MICH. L. REV. 1093, 1115–19 (2009).

32. See, e.g., Lee Anne Fennell, *Property in Housing*, 12 ACADEMIA SINICA L.J. 31, 34–35, 61–64 (2013), available at <http://publication.ias.sinica.edu.tw/61602121.pdf>; Benjamin Barros, *Home as a Legal Concept*, 46 SANTA CLARA L. REV. 255, 259–75 (2006).

33. See Fennell, *supra* note 32, at 51–71.

of housing alternatives the law permits, encourages, forbids, or discourages.³⁴

There have been recent experiments in several U.S. cities with micro-apartments, including some units with the square footage of a single parking space.³⁵ Housing density and affordability could be enhanced with these spaces, but questions arise about whether they are too small to provide an appropriate habitat for a human being.³⁶ There are even more extreme examples, such as the capsule hotels in Japan that have sometimes gone beyond the function of a place to sleep to serve as a more or less long-term home.³⁷ Whether this seems like a clever alternative or a bad idea depends a lot on how the housing unit will be used: Just how many hours a day do you plan to stay in there?

Another way to ask the question, following the theme of this talk, is to ask what housing-related services are co-located with your apartment. Are there nearby parks and gyms for recreation and exercise? Are there places to work, read, do laundry, socialize, garden, and so on? Are there nearby facilities for hosting parties and putting up guests? Housing policy can support microunits by supporting these kinds of services and more. By making related facilities and services easier to access and share outside the home (whether through government provision, subsidization, or simply the loosening of land use controls), housing can become more affordable.³⁸ The point extends far beyond the viability of microapartments to encompass questions about the size of suburban lots, the density of housing development, and the overall spatial layout of a metropolitan area. The less

34. *See id.* at 56–57 (explaining that the space necessary for a residence depends on which activities occur within the home and which are obtained externally).

35. *See, e.g.*, Tim Iglesias, *The Promises and Pitfalls of Micro-Housing*, ZONING AND PLANNING LAW REPORT, Nov. 2014, at 1; Rebecca Burns, *Multistorey Car Park in US Transformed into Designer Micro-Apartments*, THE GUARDIAN (July 9, 2014, 4:51 AM), <http://www.theguardian.com/cities/2014/jul/09/multistorey-car-park-us-designer-micro-apartments-affordable-housing>.

36. *See, e.g.*, Iglesias, *supra* note 35, at 5. For a discussion of the regulation of microunits in several U.S. cities, see generally John Infranca, *Housing Changing Households: Regulatory Challenges for Micro-Units and Accessory Dwelling Units*, 25 STAN. L. & POL'Y REV. 53 (2014).

37. *See, e.g.*, Hiroko Tabuchi, *For Some in Japan, Home Is a Tiny Plastic Bunk*, N.Y. TIMES (Jan. 2, 2010), <http://www.nytimes.com/2010/01/02/business/global/02capsule.html>.

38. A similar point has been recognized in the context of common interest communities, where residents share common amenities such as swimming pools and tennis courts. *See, e.g.*, RESTATEMENT (THIRD) OF PROPERTY: SERVITUDES, ch. 6, introductory note (2000) (noting that one reason for the popularity of common interest communities is “their ability to increase the amenities available to residents by providing a workable mechanism for sharing enjoyment and spreading the costs across a stable base of contributors”).

one needs one's home to do, the less it is likely to cost. Making policy that is informed by co-location can foster affordability.

To make this point concrete, consider some recent data that has been collected on where people run within cities.³⁹ It turns out that people like to run next to water, as well as in parks.⁴⁰ Water, at least, is hard to move. We might not normally think about the trails surrounding water as housing policy, but we should. Housing in close proximity to those trails is housing that does not have to do as much work in containing the exercise regimen within the four corners of the home or apartment complex. Thinking carefully about what uses are complementary to what other uses, and which uses are easy or hard to move, can alter the way we approach problems of housing and housing affordability.

Co-location-conscious policies can also change the spatial footprint of an area and alter the amount of space (and energy) that each household must consume. If one's home must accommodate a wide range of functions, it must be sized for the largest of those functions. Thus, the desire to entertain a large number of guests twice a year or put up the in-laws for a few weekends each year can impact the size of people's year-round dwelling units.⁴¹ The house itself cannot expand and contract as needed. But external facilities that serve some of the same purposes can effectively add elasticity. A nearby shared guesthouse could add extra capacity for household guests,⁴² and shared event venues can make it unnecessary to place grand entertaining spaces within one's home.⁴³ People could still choose to include those spaces in their homes, of course, but housing policy could make it feasible to do otherwise.

39. Nathan Yau, *Where People Run in Major Cities*, FLOWING DATA, <http://flowingdata.com/2014/02/05/where-people-run/> (last visited Apr. 27, 2015).

40. *Id.* ("If there's one quick (and expected) takeaway, it's that people like to run by the water and in parks . . .").

41. Fennell, *supra* note 32, at 58–59.

42. See Lucy Sargisson, *Second-Wave Cohousing: A Modern Utopia?*, 23 UTOPIAN STUD. 28, 41 (2012) (explaining that cohousing residences can be smaller than conventional residences because, "[f]or example, if a community has a shared guesthouse, there is no need for each home to contain a guest room").

43. Clubhouses and other amenities in common interest communities may serve this purpose. See, e.g., Todd Brower, *Communities Within the Community: Consent, Constitutionalism, and Other Failures of Legal Theory in Residential Associations*, 7 J. LAND USE & ENVTL. L. 203, 205 (1992) (suggesting common interest communities may respond to perceived governmental shortfalls, including those in "amenities such as parks, swimming pools, and clubhouses"); see also Mark Fenster, *Community by Covenant, Process, and Design: Cohousing and the Contemporary Common Interest Community*, 15 J. LAND USE & ENVTL. L. 3, 11–12 (1999) (describing shared "common houses" in cohousing developments which allow residents to devote less space in their individual homes to kitchens, playrooms, laundry facilities, meeting areas, and so on).

Enabling people to satisfy more functions outside the home also has some interesting implications for mobility and stability over the life cycle. In some cases it might mean that changes in the activities, interests, or even the number of household members will not require a change in residence, if the need for extra space can be satisfied outside the home. However, it is possible that more co-located services and facilities could lead to smaller housing units that are more sensitive to life cycle changes. While a guest room might have previously been repurposed a half dozen times as a home office, a music studio, a sewing room, a weight lifting room, a media room, and a storage space, it now might not be part of the family's home at all.

Whether people would move more or less often is an open question, but land use policy can also determine whether it is possible to relocate in a nearby area.⁴⁴ If much of what matters is supplied in the community, and not in the individual house, then moving might be less disruptive than we typically assume it to be. Some jurisdictions have taken steps to accommodate accessory dwelling units and "laneway" homes that would effectively allow people to move into smaller spaces as they age.⁴⁵ Interestingly, for all the negative press that eminent domain has gotten for displacing people, there has been scarcely a whisper of attention given to the fact that land use policy can also profoundly affect how often people must make *voluntary* moves due to changes in life circumstances, how far they must move in such cases, and how disruptive those moves will be.

B. Coordinate (and Coerce) Creatively

Coordinating to achieve better co-location patterns does not mean that everything has to be planned by the government. Command and control is just one strategy, and it may not work so well when we are trying to encourage the sorts of complex, heterogeneous mixes of uses that lead, say, to a successful urban district. Here, we can take a page from some private

44. See JANE JACOBS, *THE DEATH AND LIFE OF GREAT AMERICAN CITIES* 139 (1961) (observing that heterogeneous neighborhoods allow people to "stay put" even as their family size and circumstances change).

45. See, e.g., *Laneway Housing Approved by Vancouver Council*, CBC NEWS (July 29, 2009, 9:08 AM), <http://www.cbc.ca/news/canada/british-columbia/laneway-housing-approved-by-vancouver-council-1.823237> (quoting Vancouver Councillor Raymond Louie's observation that permitting laneway garages to be converted to dwelling units will allow people to "age in place . . . and have the opportunity to stay in that community for the entire duration of their life"); Megan Stewart, *Minneapolis Council Passes 'Granny-Flats' Amendment*, KSTP TV (Dec. 5, 2014, 10:52 AM), <http://kstp.com/article/stories/s3640387.shtml> (reporting on Minneapolis's amendment permitting self-contained accessory dwelling units (ADUs) to be added to lots with one- or two-family homes, and permitting either the home or the ADU to be rented out if the owner occupied the other unit); see also Infranca, *supra* note 36, at 69–70.

examples of coordination when we think about how to get the right mix of land uses and land users.⁴⁶

For example, legal scholars Gideon Parchomovsky and Peter Siegelman have recently examined the possibility of making cities operate a bit more like shopping malls.⁴⁷ The owner of a shopping mall owns the entire domain and can maximize profits by attracting anchor stores with lower rents and charging more rent to lesser-known stores.⁴⁸ Similarly, cities could assemble large tracts of land and auction them off to developers who would coordinate uses.⁴⁹ Peter Colwell, an economist, once observed that we could get results similar to optimal zoning if we made developers hold property in very big chunks, say 640 acres, as long as we had some rules about what to do around the edges.⁵⁰

But suppose we don't want to concentrate ownership in this way.⁵¹ Local governments could try to achieve desirable co-location patterns on their own by using a strategy of adjusting prices for different land uses, much like universities might use merit scholarships to lower the price for students they especially want to attract.⁵² There's a problem, though—local governments don't exactly “sell” zoning or permission to develop, at least

46. See, e.g., Rodriguez & Schleicher, *supra* note 1, at 658–61.

47. See generally Gideon Parchomovsky & Peter Siegelman, *Cities, Property, and Positive Externalities*, 54 WM. & MARY L. REV. 211 (2012).

48. See, e.g., *id.* at 241–45; B. Peter Pashigian & Eric D. Gould, *Internalizing Externalities: The Pricing of Space in Shopping Malls*, 41 J.L. & ECON. 115, 122–25 (1998).

49. See Parchomovsky & Siegelman, *supra* note 47, at 247–57 (proposing such an approach, as an alternative to having the government retain ownership of the area itself); Pashigian & Gould, *supra* note 48, at 141 (“While this is not a new idea, giving developers the opportunity to develop blocks of condemned space instead of individual parcels has much to recommend itself because developers will take account of the externalities among stores.”).

50. Peter F. Colwell, *Tender Mercies: Efficient and Equitable Land Use Change*, 25 REAL EST. ECON. 525, 529 n.6 (1997).

51. There are reasons we might hesitate to do so. See, e.g., Fennell, *supra* note 10, Part III.B.1 (discussing drawbacks of a “supersizing” approach to land ownership, including internal management costs, and citing associated literature). The concentration of ownership itself might be independently problematic, at least if undertaken on a broad scale. Thomas W. Merrill, *The Property Strategy*, 160 U. PA. L. REV. 2061, 2094 (2012) (observing that ownership that is limited to “only a small number of people” forfeits the benefits of “dispersed local knowledge” and can dampen incentives and reduce property’s role as a check on power). In addition, the initial assembly of land would likely require the exercise of eminent domain. See Parchomovsky & Siegelman, *supra* note 47, at 218.

52. See, e.g., Fennell, *supra* note 10, Part III.B.3 (discussing differential pricing in the urban context and citing literature on other examples of such pricing structures); Michael Rothschild & Lawrence J. White, *The Analytics of the Pricing of Higher Education and Other Services in Which the Customers Are Inputs*, 103 J. POL. ECON. 573 (1995) (examining higher education and other settings in which the characteristics of the customers are important to the product).

not on the open market.⁵³ But they can do other things to make locating in one area rather than another more or less attractive.

Concert pricing offers an interesting analogy. Concerts (at least certain kinds) are thought to be better if you have more fans that are leaping around and hooting and cheering, rather than just passively enjoying the show from a seated position. But it's hard to achieve this through ordinary pricing; the person who might pay the most for a concert ticket might not be the best audience member.⁵⁴ The willingness to camp out for tickets or wait in a long queue might correlate better with enthusiasm.⁵⁵ And at least some economists analyzing the situation have posited this is why concert tickets are priced as low as they are, and why there are efforts to control ticket scalping.⁵⁶ Applying this approach to the co-location problem of land use might mean making certain areas especially attractive to complementary land uses and land users through infrastructure and amenities.⁵⁷

When land must be assembled for a new use, coordination may become impossible, and coercion—eminent domain—may become necessary to address holdouts.⁵⁸ Here too, thinking creatively about the problem of co-location may be helpful in minimizing the harms that come from

53. See, e.g., FENNELL, *supra* note 2, at 72 & nn.18–23 and sources cited therein. The fact that zoning rights are not freely alienable has long been criticized. See, e.g., ROBERT H. NELSON, ZONING AND PROPERTY RIGHTS: AN ANALYSIS OF THE AMERICAN SYSTEM OF LAND-USE REGULATION 2 (1977); Marion Clawson, *Why Not Sell Zoning and Rezoning? (Legally, That Is)*, CRY CAL., Sept. 23, 1966, at 9, 39.

54. See Allan C. DeSerpa, *To Err Is Rational: A Theory of Excess Demand for Tickets*, 15 MANAGERIAL & DECISION ECON. 511, 515–17 (1994) (presenting a concert pricing model in which “the highest-demand buyers in terms of money price will generally not be the ‘best audience’ in their own estimation”).

55. See Lutz-Alexander Busch & Phil Curry, *Ticket Pricing and the Impression of Excess Demand*, 111 ECON. LETTERS 40 (2011) (presenting a model for event tickets in which fans of higher quality have a lower cost of lining up).

56. See *id.*; DeSerpa, *supra* note 54.

57. Prior work has analyzed these strategies and noted their potential to become avenues for discrimination. See GARY S. BECKER & KEVIN M. MURPHY, SOCIAL ECONOMICS: MARKET BEHAVIOR IN A SOCIAL ENVIRONMENT 72 (2000) (noting potential for government amenity choice to shape demographics); Lior Jacob Strahilevitz, *Exclusionary Amenities in Residential Communities*, 92 VA. L. REV. 437 (2006) (analyzing “exclusionary amenities” in private residential communities). These risks heighten the case for attending to these strategies, which cities may already be employing in unrecognized ways. See Fennell, *supra* note 10, Part III.B.3.

58. See, e.g., Merrill, *supra* note 13, at 74–76. Private developers may, however, have relatively greater ability to assemble land than the government does. See *id.* at 82 (noting that private parties may be better able than the government to employ devices that rely on secrecy, such as “buying agents, option agreements, [and] straw transactions”); Daniel B. Kelly, *The “Public Use” Requirement in Eminent Domain Law: A Rationale Based on Secret Purchases and Private Influence*, 92 CORNELL L. REV. 1, 20–24 (2006) (expanding on this theme). Alternatives to traditional eminent domain might also be pursued. See generally, e.g., Heller & Hills, *supra* note 27 (proposing “land assembly districts”).

displacement. Certainly governmental entities should be sensitive to the fact that condemnation often involves breaking up complementary uses, even as it often attempts to make possible new complementary chunks of value. But the concept of co-location opens up another possibility that deserves discussion: If what matters most is not one's absolute position on a map, but rather one's relative position to other land uses and land users, it is possible to craft policies that lead to less destructive forms of displacement.

To make this concrete: Involuntary moves are likely to be less disruptive if a lot of what matters to the individual remains accessible, either in its original location or in a shifted location. Other countries employ systems of land readjustment that redevelop areas and give those who are displaced a new piece of property in the same area that is equally or more valuable (in fair market value terms, at least).⁵⁹ This approach has not received much attention in the United States, perhaps because of an assumption that being shifted to a new (and probably smaller) location could never add value. Yet that assumption may itself be founded on the mistaken perception that what gives a particular property its value is found within the four corners of that property. We know that isn't true. The ability to place more of what is valuable outside the home could make moving less painful.

One might object, however, that the problem with eminent domain is not what the household loses, but rather the fact it was forced to give up its property at all.⁶⁰ It is clearly better to have changes in land uses be consensual, not forced, but that goal can be at odds with the broad participation required to make chunky changes. This brings us to the third policy direction: that we make it possible for people to opt for less permanence.

C. Planning for Impermanence

Recognizing that breaking up or relocating existing co-located uses may be necessary to produce new and better forms of co-location suggests a role for planned portability of at least some uses. What if a city were designed a little more like an art gallery, with permanent exhibits and

59. See generally ANALYZING LAND READJUSTMENT: ECONOMICS, LAW, AND COLLECTIVE ACTION (Yu-Hung Hong & Barrie Needham eds., 2007).

60. See, e.g., Lee Anne Fennell, *Taking Eminent Domain Apart*, 2004 MICH. ST. L. REV. 957, 966–67 (2004) (noting eminent domain's interference with the owner's autonomy in deciding when and whether to sell); Garnett, *supra* note 23, at 109–10 (discussing “dignitary harms” that may come from eminent domain).

rotating ones? The permanent exhibits give the place an enduring character, but planning for a certain amount of rotation can generate energy and foster flexibility. The increasing use of pop-up retail shops or event venues illustrates some of the potential. In addition to energizing already thriving urban areas, such temporary uses can serve as a means of innovation and redevelopment in areas with sizable amounts of empty or underutilized land.⁶¹ At an even smaller scale, food trucks represent flexible, reconfigurable bits of urban life.⁶²

The overriding notion is one of reversible land use choices. Virtually all land use choices are reversible at some cost, but those costs often appear prohibitive, and produce a kind of path dependence or stickiness in the way that land (or more precisely, space) is used as a resource.⁶³ Planning for portability from the outset can counter this stickiness. Here we might draw lessons from large-scale events like Olympic Games and World Fairs, which often involve dramatic changes in land use, some that are meant to be temporary and others that are meant to leave a more lasting signature on the place.⁶⁴ If it is possible to plan for portability in these contexts, why not in others?

Property rights represent one impediment.⁶⁵ How can we plan for flexibility and impermanence in a world where property rights are typically

61. These approaches are beginning to receive attention from policymakers and commentators. See, e.g., U.S. DEP'T OF HOUS. & URBAN DEV., *Temporary Urbanism: Alternative Approaches to Vacant Land*, EVIDENCE MATTERS (Winter 2014), <http://www.huduser.org/portal/periodicals/em/winter14/highlight4.html>; Stacy Cowley, *How Pop-Up Stores Are Spurring Innovation in Detroit*, N.Y. TIMES (Apr. 16, 2014), <http://boss.blogs.nytimes.com/2014/04/16/how-pop-up-stores-are-spurring-innovation-in-detroit/>.

62. Food trucks' increasing popularity has spawned research to quantify the trend and identify the underlying dynamics. See Diane Swanbrow, *Study Identifies Factors that Contribute to Food Trucks' Fast Spread*, UNIV. OF MICH. NEWS (Aug. 16, 2014), <http://ns.umich.edu/new/releases/22337-study-identifies-factors-that-contribute-to-food-trucks-fast-spread> (reporting on the work of Todd Schifeling and Daphne Demetry, who "found that there are now more than 4,000 food trucks in U.S. cities with more than 100,000 people").

63. See, e.g., Julia D. Mahoney, *The Illusion of Perpetuity and the Preservation of Privately Owned Lands*, 44 NAT. RES. J. 573, 590–99 (2004) (examining the physical and institutional costs and impediments to reversing different kinds of decisions about development and conservation).

64. See, e.g., Brandon Smith, *The Future of Olympic Architecture Is Portable*, MASHABLE (July 31, 2012), <http://mashable.com/2012/07/31/olympic-architecture/>. By mentioning these examples of planned portability, I do not mean to suggest that all land use actions surrounding such mega-events are benign or appropriate. On the contrary, concerns about displacement loom large. See, e.g., Jessica Blumert, Note, *Home Games: Legal Issues Concerning the Displacement of Property Owners at the Site of Olympic Venues*, 21 CARDOZO J. INT'L & COMP. L. 153 (2012); Solomon J. Greene, Note, *Staged Cities: Mega-Events, Slum Clearance, and Global Capital*, 6 YALE HUM. RTS. & DEV. L.J. 161 (2003). My discussion here is aimed at finding ways to reduce displacement by planning ahead for change.

65. See Eamonn D'Arcy & Geoffrey Keogh, *Towards a Property Market Paradigm of Urban Change*, 29 ENV'T & PLANNING A 685, 691 (1997) (observing that the property rights bound up in the

perpetual in length? Here we might take a page from finance. Some financial instruments are callable by design; investors are willing to purchase them because the price reflects the risk that the call will be exercised.⁶⁶ Would Americans ever go for “callable” homes? In one sense, we already have. The government has a call option on your home that enables it to acquire the property for public use at fair market value.⁶⁷ What is interesting to consider is whether people would willingly purchase in communities that are designed to be reconfigurable or even portable. Because such purchases would increase land use flexibility, it would be worth subsidizing this choice. If people who are more amenable to moving can signal this fact to the government, resort to eminent domain might become less necessary.⁶⁸

Such an alternative might become more attractive if it were coupled with efforts to ensure that physical displacement from one’s precise current location does not mean losing the important elements of co-location one presently enjoys in the larger community. If moving doesn’t mean giving up the park where you take walks, the gym where you exercise, the coffee shop where you write your novel, the school or day care your kids attend, or the dog park where you exercise your pup, it takes on a different cast than if your life is simply upended.

Consider this analogy: Increasingly, people use their computers not to archive huge amounts of data but rather to access online storage areas in “the cloud.”⁶⁹ It is easy to see the advantage. As more of the things you do on the computer are saved in the cloud, the less of a big deal it is to change computers or devices. What is most valuable to you is still there in the

existing stock of buildings, as well as the buildings themselves, constitute “potentially important constraints on urban change”).

66. See, e.g., *High-Yield CDs—Protect Your Money by Checking the Fine Print*, U.S. SEC. & EXCH. COMM’N, <http://www.sec.gov/investor/pubs/certific.htm> (last visited Mar. 30, 2015) (describing callable certificates of deposit, which the issuing bank can terminate at its option).

67. See Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1092–93 (1972) (observing that a home is only protected by a “liability rule” against the government’s acquisition through eminent domain, meaning that the government can proceed unilaterally upon paying a specified price). Legal scholars have adopted the language of options as a way of talking about liability rules. See IAN AYRES, *OPTIONAL LAW: THE STRUCTURE OF LEGAL ENTITLEMENTS* 14–17 (2005); Madeline Morris, *The Structure of Entitlements*, 78 CORNELL L. REV. 822, 852 (1993) (noting that a call option is an illustration of a liability rule).

68. The idea of enabling residents to opt into arrangements that are less permanent or rooted is one I will be developing further in future work. For a brief overview, see Fennell, *supra* note 10, Part III.B.5.

69. See, e.g., Jill Duffy, *The Best Cloud Storage Solutions*, PC MAG. (Apr. 2, 2014), <http://www.pcmag.com/article2/0,2817,2413556,00.asp>.

cloud. Might we come to think about houses and businesses in this same way? The logic of co-location suggests we might. If what is valuable remains accessible within the community, changes in location could become less threatening.

CONCLUSION

These are, as I said, just ideas meant to spur further thought and discussion. Whether or not any of them resonate with you, I hope I have convinced you that co-location matters, and that it can change the way we think about land use and housing.