

Portland State University

From the Selected Works of Connie P. Ozawa

2012

Creating Livable Cities: The Story of Portland, Oregon

Connie P. Ozawa, *Portland State University*



Available at: https://works.bepress.com/connie_ozawa/22/

Creating Livable Cities: The Story of Portland, Oregon
Connie P. Ozawa, Ph.D.
Portland State University

Portland, Oregon sits between the beloved “city on a hill,” San Francisco, CA, and “sleepless” Seattle, WA, another west coast city that rose to notoriety and became the 15th largest metropolitan area in the U.S. as the home of Microsoft, Boeing, and Starbucks, and the setting of a popular Hollywood movie. Portland would seem to be unremarkable, but it isn’t. Over the past decade, Portland has repeatedly topped lists compiled by groups as varied as *Sustainlane*, *Forbes*, and *POPSCI* magazine that rank cities for eco-friendliness, health, livability and quality of life. Portland boasts a 6,000-acre Forest Park, 247 parks and recreational areas sprinkled throughout the city and a 40-mile loop bike and pedestrian trail that encircles it. The city intrigues young bike enthusiasts as well as transportation planners as the city tops the list of bike-commuting cities. (League of American Bicyclists, 2011) Portland is also at the front of the pack for good food, farmers markets, micro-breweries and Indie music. (Clark 2007; Gold 2010; Hess 2012) A cable television show, *Portlandia*, has entered its third season portraying life here with Portlanders’ obsessions with environmental consciousness and quirky politics.

For students of cities, Portland offers a fascinating case of the interaction between people and place, with institutions and the field of planning at its core. In many ways, Portland has evolved as a product of its context. It is at the center of a region that has an exceptional history and one that continues down a path that continues to be exceptional in many ways. This chapter attempts to set the development of Portland in the institutional context of its region and state, reflecting the fact that Portland is part of a larger region and cannot be assessed in isolation of what has occurred around it. Institutions alone do not act, of course, and much of what has helped to produce today’s Portland is not in laws or procedures, but in its people and culture.

Background

The Portland metropolitan region is located at the northern edge of the state of Oregon in the Pacific Northwest of the United States, just across the Columbia River from Washington State. Oregon is divided north to south by two mountain ranges. The Cascade Mountains separate the arid “high desert” to the east from the wetter west side. The Coastal Range

Mountains demarcate the rugged, drenched coastal areas from the lush and fertile Willamette Valley. The Willamette Valley takes its name from a south to north flowing river, which empties into the mighty Columbia River, the fourth largest flowing river in the U.S. and one that has been vital for fisheries, hydropower, agricultural irrigation, shipping and recreation. At the confluence of the Columbia and Willamette rivers and at the center of a vibrant urban metropolis sits the city of Portland.

Historically, Oregon has relied on natural resource industries, with agriculture, timber and fisheries products leading exports. Although the city reputedly gained its name not from its function but from a coin toss (Abbott 1983), Portland is indeed a port, serving as the main outlet to the Pacific Ocean for much of the products shipped down the Columbia River from eastern Oregon, eastern Washington, Idaho and Montana. A major east-west rail line also ends in Portland, and the docks are a major point of entry for products such as automobiles from Japan and Korea. While its role as a major west coast port continued, national controversies such as the protection of endangered species such as the spotted owl and salmon in the 1980s and 1990s pushed the state to transition to greater reliance on manufacturing and services. High tech industries took off with the construction of chip making facilities in Willamette Valley cities. Today, the Portland region hosts Intel's largest manufacturing facilities in the country and Intel is the largest private employer in the state. Established firms including Hewlett Packard, Tektronix and Intel spun off a number of start-up firms, giving rise to the moniker "Silicon Forest" to the Portland region's west side. (Mayer, 2003)

The state as a whole has enjoyed strong and steady growth rates, experiencing its historic boom years during World War 2, when war time shipbuilding and repair was a major activity and drew huge numbers of workers from the eastern and southern U.S. The City of Portland is the largest city in the state, and the Portland metropolitan region has gradually gained a larger proportion of the state's population, inching from 36% in 1980, to 41% in 2010. The region grew by 26.5 percent from 1990 to 2000, and another 15.5 percent in the latest decade, reaching a population of more than 2.2 million in 2010. Meanwhile, the City of Portland grew at a slightly slower pace over the past two decades.

Table1. Population change 1940-2010

Year	State of Oregon*		City of Portland*		Inside Metro UGB**		Portland MSA***	
	Population	% change	Population	% change	Population	% change	Population	% change
1940	1,089,684	14.2	305,394	1.2				
1950	1,521,341	39.6	373,628	22.3				
1960	1,768,687	16.3	372,676	-0.3				
1970	2,091,533	18.3	382,619	2.7				
1980	2,633,156	25.9	366,383	-4.2	940,600			
1990	2,842,321	7.9	437,319	19.4	1,053,800	12.0	1,523,741	
2000	3,421,399	20.4	529,121	21.0	1,305,570	23.9	1,927,881	26.5
2010	3,831,074	12.0	583,776	10.3	1,556,300	19.2	2,226,009	15.5

*Source: U.S. Census

**Source: U.S. Census and Metro Research Center

***The OMB defines a Metropolitan Statistical Area (MSA) as one or more adjacent [counties](#) or [county equivalents](#) that have at least one [urban core area](#) of at least 50,000 population. In Portland, this is the area of Clackamas, Columbia, Multnomah, Washington and Yamhill counties in Oregon and Clark County and Skamania County in Washington.

Living in metropolitan Portland has its down sides. One can expect that about two of every three days will be cloudy, compared to our sunnier neighbors to the south, the San Francisco Bay Area, where residents enjoy only about 100 days of cloudiness each year. Portland suffers a challenging housing scene with a severe lack of affordable housing. And, unlike older, industrial cities of the eastern and mid-western U.S., the region lacks financially generous benefactors and suffers low potential for regional philanthropy with only a handful of Fortune 500 firms calling Oregon home.

But it also has up sides. Portland is located in an exquisite area of natural beauty. It is a comfortable 75-minute drive from the spectacular rugged coastline, an hour from breathtaking views of the Columbia River Gorge (a national scenic area), and an hour from the ski slopes of Mt. Hood, which boasts year-round skiing. Beyond its natural endowments, however, the region has developed a distinct urban character.

As mentioned earlier, the City of Portland is known for its ample parks and open space and trails. It hosts a world-class, rose test garden in Washington Park, a brisk 30-minute walk from City Hall, earning it the nickname, the City of Roses. It is a favorite among biking enthusiasts, is popular for its proliferating ethnic food carts and creative cuisine featuring locally-grown products and, increasingly, for its craft beers and pinot noirs from the nearby Willamette Valley. Notably, it was ranked # 4 healthiest cities by Forbes magazine,

(<http://www.forbes.com/sites/melaniehaiken/2011/09/13/americas-top-10-healthiest-cities/>), and among the top U.S. cities for the elderly population. And a growing artisan economy indicates the strength of local shoppers' preferences for buying from their neighbors a quality product made with the pride of a craftsperson. (Heying 2011) The annual Rose Parade held each June complete with a Rose Queen selected from graduating high school seniors creates a "small town" feel to the metropolis.

Lifestyle issues aside, Portland also scores high in sustainability. Sustainlane is a non-profit that has ranked the 50 largest U.S. cities along 16 dimensions of sustainability, and the organization has placed Portland first on the list. Portland ranks particularly high in energy and climate change policy, city innovation, a green economy, land use and planning and air and water quality. Unlike other U.S. cities of its age, Portland started investing early in alternatives to automobile travel with major accomplishments. In the 1970s, as did many cities across the United States, Portlanders stopped the construction of a highway through its downtown core. However, going a step further, they transformed a major thoroughfare into a waterfront park, which is popular today among daily joggers and bike commuters and for music concerts, cultural events and the Saturday Market, which features only locally-produced crafts. An even splashier headline was made when Portlanders asked the federal government for permission to transfer funds earmarked for the construction of an east-west highway to the laying of light rail tracks instead. The transit system, Trimet, now operates 130 km of light rail lines with construction of an 11.8 km extension underway and targeted for opening in 2015.

Today, Portland continues to win accolades for its multi-modal transportation system. The city snagged the top spot in *Biking Magazine* again in 2012, (having occupied the spot in 2010, but getting edged out by Minneapolis in 2011). Construction of "bicycle boulevards" to connect residential areas with the downtown, innovating with "cycle tracks" and "bike boxes" to increase safety, and removing on-street auto parking spaces with bike racks are the sorts of investments that warrant kudos. The small blocks and gridded street patterns of the downtown and east side neighborhoods add to the ease of bike commuting.

In terms of sustainability, due to the use of transit, biking and land use planning, Portland has been showing a slowing and declining trend in VKT's (vehicle kilometers traveled) per capita, despite population and economic growth. On a per person basis, the average resident in the Portland region travels 6.4 fewer kilometers per day in a private automobile compared with

those in other U.S. metropoli. Not only does lower vehicle use mean lower emissions and less-congested streets, a local economist has calculated the estimated out-of-pocket cost savings to residents. Using a conservative estimate of vehicle costs for fuel, insurance, wear and tear, he contends the region as a whole saves the equivalent of 1.5 percent of personal income or more than \$1 billion per year, not to speak of less easily quantified savings that accrue from reduced carbon emissions, less time spent on the road for the traveler, and more general environmental benefits. (Cortright 2007)

What Makes Portland Different from Other U.S. cities?

Urban development in the U.S. is largely the prerogative of local decision making. There is no national land use plan or planning law. The influence of the federal government on privately-held land is indirect and ad hoc, such as through the Federal Highway Administration and various national environmental laws. The FHWA, for example, allocates funding for highway construction. Though indirect, the routing of highways and the location of interchanges can create a powerful stimulus for urbanization especially at junctions with local roads. As another example, the National Environmental Policy Act addresses only private actions that require a federal permit or funds, and forces the consideration of adverse impacts by a proposed action, but is ultimately only advisory not prescriptive or declarative. Moreover, natural resources management sharply distinguishes between public and private land, and property rights are carefully respected. For their part, the 50 states handle urbanization in varying ways but the dominant model is to simply delegate land use planning to local authorities. Therefore, how states approach environmental protection and land management has varied considerably, and the impact of state or federal policy on city development itself is quite idiosyncratic.

In Oregon, decision making about the use of land and other natural resources looks different than in other parts of the country. The state of Oregon made U.S. land use history in 1973, when it passed one of the first and most prescriptive state-level, land use planning laws. (Adler 2012; Sullivan 2012) The 1973 legislation was advocated by an interesting coalition of political interests. Oregon was still a largely agricultural economy then, and amid the rise of the environmental movement and an intellectual climate that incubated the Club of Rome's 1973 *Limits to Growth* study, then-governor Tom McCall and state legislators negotiated an agreement

to contain urbanization to protect the state's agricultural lands from the thoughtless flood of asphalt and concrete.

Senate Bill 100 (the pre-approval form of the law), required all Oregon cities create a comprehensive land use plan designed to address state goals (an original list of 14 was later expanded to 19), which would be subject to review and approval by a new state commission, the Land Conservation and Development Commission, which in turn would be supported by a new state agency, the Department of Land Conservation and Development. The 19 goals can be found on the DLCDC's website, (<http://www.lcd.state.or.us>). One of the most significant goals and by now certainly the most well-known is Goal 14: Urbanization. It requires each city in the state draw an imaginary line around its current jurisdictional boundary. The city must ensure that this "urban growth boundary," or "UGB", contains sufficient land to accommodate projected growth for the next 20 years. Very limited development is permitted outside the UGB, thus protecting agricultural lands from the threat of rampant suburbanization.

In the Portland metropolitan region, another unique feature of the planning system is Metro, the only regionally-elected land use planning authority in the United States. Created by voters in 1978, Metro is led by six councilors elected respectively by voters in six districts, and one president, elected at-large by all voters in the region. Metro has responsibilities in a number of areas including managing the region's solid waste system, regional convention and visitor facilities, the Oregon zoo, and maintaining a regional data resource center. But, its primary role, sanctioned by the state, has been to coordinate the transportation, land use and growth management decisions of the region's 25 cities and three counties. Metro presides over a land area of about 104,265 hectares or 1,036 km², and is home to more than 1.5 million Oregon residents. (See Table 1.) Metro has assumed leadership by administering the urban growth boundary, setting forth a regional vision for infrastructure investments to shape the urban form, and developing a regional approach to the protection and preservation of natural areas.

Metro has been a cautious gatekeeper of the region's urban growth boundary. The Portland metropolitan UGB was first drawn in the late 1970s, and has been modified many times, but primarily to accommodate only minor adjustments (of less than 20 acres) in boundary lines. Table 2 shows the dates and magnitudes of major additions. Maps of changes in the urban growth boundary can be found on Metro's website, <http://www.oregonmetro.gov/>. For comparison, Denver, CO, another growing metropolis which also has an urban growth boundary,

moved its boundary to include an additional 21,237 ha. in the years between 2000 and 2006. A non-profit research center has estimated that the amount of developed land in the U.S. overall increased 48 percent between 1982 and 2003, compared to the less than 10 percent increase in the Portland region. (Center for Sustainable Systems 2011)

Table 2. Major expansions of the Portland Metropolitan Urban Growth Boundary

Year	Land (hectares)	Intended land use
1998	1,416	Housing and employment
1999	154	Jobs and housing
2002	7,635	Housing and employment
2004	792	Industrial lands
2005	140	Industrial lands
2011	803	Housing and jobs.
Total	10,940	

Source: Metro

In the early-1990s, Metro leaders initiated an ambitious regional planning effort that produced the 2040 Growth Concept, a framework for guiding future development decisions. Based on an impressive public outreach plan, the agency asked the public (through extensive mail surveys and public meetings) how they preferred to see the region manage projected population growth. What resulted was a general framework that underscored a commitment to a vibrant central city core, a network of transit options, rivers and parks, and a hierarchy of main streets and town centers to provide various levels of services. Although cities and counties retain responsibility for their own comprehensive plans and zoning authority, the Concept remains a powerful expression of a common view of the form of regional growth and development, and regional transportation investments are carefully aligned to support it. A map illustrating the concept can be found on Metro's website at <http://www.oregonmetro.gov>.

Another area in which Metro has been active is in open space acquisition. The voters in the metro region have demonstrated their strong preference for open space and natural area protection by agreeing to tax themselves to raise funds for land acquisition, first in 1995 to the tune of a \$135 million bond measure, and then again in 2006 with a bond measure for \$227 million. To date, the agency has purchased more than 4,452 ha. to protect water quality, wildlife habitat and outdoor recreational opportunities.

Most recently, Metro took a bold step forward in revising its land use and growth management strategy by proposing to complement the UGB tool by developing a second innovative planning tool – urban and rural reserves. Essentially, the Metro councilors working with the leadership of the three Oregon counties in its jurisdiction set about a two-year process to classify more than 20,234 ha surrounding the current UGB into three groups: urban reserves, rural reserves, and undesignated areas. Urban reserves would be those lands that may be considered in future urban growth boundary expansions; rural reserves are those lands that will definitely not be considered, and undesignated areas are those properties which would have to be reconsidered in a specific context. This leadership team, which came to be known as the Core 4, together with input from the public through an elaborate series of public meetings and advisory committees, based their decision making on natural characteristics such as soil type, water resources and wildlife habitats, as well as on other factors that make a good city, such as access to existing urban areas, infrastructure, and schools. This system of reserves planning is intended to provide greater predictability for land owners and farmers, as well as for land developers and municipalities planning future services and infrastructure.

The urban growth boundary is a technical land use planning tool, but the broad public involvement efforts major decisions require and coverage by the mainstream and less mainstream media has meant that land use decisions are discussed by a surprisingly broad swath of the public. Leaving Powell’s Bookstore, the largest independent book seller in the U.S. and a local landmark, a young 20-something-year-old hipster distributing pamphlets for a music event was overheard discussing the region’s “UGB,” and he *was* talking about the urban growth boundary.

Portland Initiatives

As the major population center in the region, Portland has benefited enormously from state and Metro policies and plans that have bolstered its role as the region’s central city. However, to acknowledge its context should not detract from the City’s own energetic, self-conscious, and innovative leadership. City leaders have been deliberate and deliberative about the city’s future for more than four decades. (Abbott 2004) The Downtown Plan of 1972 included the north-south bus mall that is now the downtown north-south spine of the region’s light rail and bus system, design reviews to ensure a pedestrian-friendly streetscape, a waterfront

park and other dedicated public spaces, and special districts such as the university district and the historic district. A 1988 Central City Plan reinforced concepts laid out in the previous plan, but also extended the planning area across the Willamette River to the eastside, thus acknowledging a vision to connect the west and east side districts and neighborhoods.

In the 1990s, the City engaged in an extensive series of public-private partnerships to encourage the transformation of a rail and warehouse area adjacent to the downtown. Called the “Pearl District,” this area now hosts more than 5,000 housing units (many high-end condominiums but also senior housing units and a sprinkling of affordable units), a multitude of restaurants and shops, a performing arts theater (housed in a renovated armory built to green-building LEED platinum standards), and one of the city’s most popular parks, Jamison Square, which features a fountain whose water ebbs and flows like the ocean tides. A decade later, the City focused its efforts on the south waterfront, which at the time still hosted a ship-building facility and many abandoned lots. This area now has a number of Vancouver (Canada)-style high-rise residential buildings, an affordable housing complex and an out-patient treatment center of the Oregon Health Sciences University (OHSU). The OHSU facility is connected to OHSU’s massive main campus that teeters above on a rugged hilltop by an aerial tram.

Visually and functionally, the city of Portland has been intentional in directing growth to its downtown and adjacent neighborhoods while striving to maintain residences in the central core. But it has also been attentive to changes in its other neighborhoods. Indeed, Portland has been called a “city of neighborhoods.” In these, mixed-use development is one of its hallmarks as well as the more recent “20-minute neighborhood” concept in which the City aims to ensure that all daily needs can be satisfied within a 20-minute walk of all residences. In contrast to many other U.S. cities, Portland resisted pressure to consolidate small lots into superblocks, a popular practice in the U.S. during the mid-20th century, retaining in much of the eastside neighborhoods a fine-grained street grid that maximizes connectivity, especially for bicyclists and pedestrians. Investment in light rail and buses is necessarily a regional responsibility, but the City has concurrently invested in creating bike-friendly and pedestrian-friendly streets, developing its first “Bike Master Plan” in 1996 and updating it in 2010. This, too, has paid off handsomely, with accolades from the national and international press, as noted above.

The City is also a leader in addressing natural resources and physical environmental management. In 1993, the City passed one of the nation’s first carbon emission reduction plans,

which was revised in 2009. The federal Environmental Protection Agency's (EPA) webpage, <http://cfpub.epa.gov/npdes/stormwater/municroads/transportprojects.cfm> features Portland on its pages on "best practices" in storm water management. In the 1990s, when forced by the EPA to install a \$1.4 billion "Big Pipe" to treat storm water before it flowed into and degraded nearby salmon-bearing streams and rivers, the city concurrently began an ambitious program to implement "green" strategies, such as disconnecting downspouts from rooftop gutters and promoting ecoroofs, bioswales and rain gardens.

But perhaps more impressively, the City has moved effectively to address multiple objectives through its programs by working collaboratively with others. This is particularly valuable for a city like Portland, which must rely on a limited budget to get its work done. The 2005 Portland Watershed Management Plan highlights a strategy to work with public and private partners to restore water quality, wildlife habitat and flood protection. For example, the City Bureau of Environmental Services offers grants to encourage an active network of watershed stewardship organizations that inspire volunteers to help pull out invasive species, replant the banks of degraded urban streams, and to conduct educational programs in the schools and neighborhoods. When private landowners apply for building permits on their property, they are required to manage all storm water on site with bioswales, rain gardens and other green technologies. Portland's "green streets" represent a partnership between two city bureaus, transportation (PBOT) and environmental services (BES). City crews line streets with trees and vegetation and bump out curbs to both slow traffic and enhance the pedestrian and bicycling environment, while also providing space for BES crews to construct bioswales to filter storm water from the streets. In spring 2012, the city had about 3,000 green storm water facilities on public and private properties.

Very simply, Portland plans and Portlanders work together.

The Portland Governance Culture

Goal #1 of Oregon's statewide planning goals and guidelines is citizen involvement, and prescribes that governing bodies "shall adopt and publicize a program for citizen involvement that clearly defines the procedures by which the general public will be involved in the on-going land-use planning process." It would be difficult to separate the origins and contributing factors

that distinguish Portland's physical form and conditions from the larger metropolitan context, or its culture from the culture of the region. Still, many would point out correctly that the city of Portland residents consistently vote significantly more liberally than their neighbors in the surrounding 24 cities and that voters in the Metro region are more liberal than rural voters. Whatever its origins, what is true is that decision making in the Rose City is unusually participatory and progressive. Public agencies undertake a wide range of activities to seek public input and to gain feedback about public problems before solutions are selected.

Portland challenges Robert Putnam's "Bowling Alone" thesis about the decline of social capital in U.S. communities. (Putnam 2000, 2003) In contrast to other American cities, attendance at public meetings has remained strong in Portland for the past 40 years, especially for topics relating to neighborhoods, public schools and environmental amenities. (Johnson 2004) Portlanders volunteer at a rate nearly ten percentage points higher than the national average, according to the Corporation for National & Community Service.

(<http://www.volunteeringinamerica.gov/rankings/Large-Cities/Volunteer-Rates/2010>)

However, public participation in shaping urban environments is about more than attending meetings or volunteering. A couple of anecdotes are illustrative. In Portland in the 1990s, teenage skateboarders asked cement truck operators to dump their excess loads on a vacant city block under a bridge in a derelict industrial area and used the cement to carve out a daring skate board park. Rather than shut down their initiative, the city and neighboring property owners agreed to allow the youth to complete their project and the park is now world famous among skate boarders (and two of the teenage activists founded a leading northwest skate park construction firm). At about the same time, in another part of the city, a group calling itself City Repair sought to bring public gathering spaces and piazzas back into neighborhoods where the street grid created only intersections. Again, before gaining city permission, the group blocked off the streets, and built small structures to shelter and encourage neighborly interactions. Rather than penalize the perpetrators, city leaders adopted a few years later in 2000, a provision specifically allowing for such community-building activities into city policy. (Ozawa, 2004) But city administrators don't just wait for rules to be broken before gaining substantive help from community residents. Around the same period, the City purchased a 130-hectare farm on the eastside of the city in a neighborhood that suffered from recurrent flooding from the nearby Johnson Creek. Within a few years, residents formed "Friends of Zenger Farm," authored a

master plan for the land, and gained approval from the city to develop a non-profit, working farm. Today Zenger Farm is one of the city's gems, serving as an outdoor classroom and laboratory on "sustainable agriculture, wetland ecology, food security, healthy eating and local economic development." (<http://zengerfarm.org/about-the-farm>)

These are examples of Portland's style of governance at its best, one in which officials are responsive to public demands, where planners and other technical experts, administrators and elected officials recognize and value the motivation and action of community members working for the collective good. There's a culture of mutual respect. Although decisions don't always go smoothly or end up well, Portland's history suggests that the public policy making process is arguably as important as the policies themselves.

Conclusion

The evolution of a city is the product of the interplay of institutions in a place with people. Over the past decades, Portland has done well in achieving high marks on measurable indicators of sustainability and livability. Much is attributable to the unique institutions that frame land use, transportation and other critical components of urban systems. Much can be attributed to the plans that serve as well-used guides to coordinate actions. Perhaps a large part of the reason for Portland's history is embedded in the culture of the people here. However, institutions, plans and culture are all social products and they are continually subject to creation and re-creation. Neither institutions, people nor culture are static.

What is presented as Portland's successes are, of course, only part of the story. Portland is not nirvana. The city faces many challenges common in urban areas around the U.S., such as social equity, racial tensions, housing affordability, and homelessness. Other unresolved issues and hotly contested controversies more distinct to the region include the appropriateness of agriculture within the urban area, light rail route extensions, and the clean-up of highly contaminated "Superfund" sites in the Willamette River. At the regional and state level, the land use law itself has been challenged periodically albeit unsuccessfully until the most recent efforts in 2004 and 2006. The outcome of these two ballot initiatives ultimately loosened restrictions on properties located outside the urban growth boundaries to allow for very modest construction. However, although the changes did not radically alter the intent of the law, the experience is a clear reminder that institutions are not immutable. Clearly, much work is yet to be done.

Portland and the region will continue to evolve and transform. Today by many measures as described here, Portland is a pleasant, livable city. Its history holds lessons for the development and redevelopment of urban areas around the world as well as its own, but whether those lessons are identified, transferable and acted upon by Portlanders and others, only the future will tell.

Selected References

Abbott, Carl. 1983. *Portland: Planning, Politics and Growth in a Twentieth Century City*. Lincoln: University of Nebraska Press.

----- 2004. "Centers and Edges: Reshaping Downtown Portland." In Connie P. Ozawa, ed., *The Portland Edge: Challenges and Successes in Growing Communities*. Washington, Covelo, London: Island Press.

Adler, Sy. 2012. *Oregon Plans: The Unquiet Revolution*. Corvallis, OR: Oregon State University Press.

Asimov, Eric. "In Portland, a Golden Age of Dining and Drinking," *The New York Times*, 26/09/2007. <http://www.nytimes.com/2007/09/26/dining/26port.html?pagewanted=all>, accessed on 18/06/2012.

Center for Sustainable Systems. *Factsheets*. [Pub. No. CSS09-06, http://css.snre.umich.edu/css_doc/CSS09-06.pdf](http://css.snre.umich.edu/css_doc/CSS09-06). 2011. Accessed on 21/06/2012.

Clark, Taylor. 2007. "The Indie City: Why Portland is the Indie Rock Mecca," *Slate.com* http://www.slate.com/articles/arts/music_box/2007/09/the_indie_city.html, accessed 18-06-2012.

Cortright, Joe. 2007. "The Green Dividend," a white paper for CEO for Cities, <http://www.impresiconsulting.com/node/42>, accessed 23-06-2012.

Gold, Sarah, 2010. "America's Best Farmers' Markets," *Travel and Leisure Magazine*. April 2010. <http://www.travelandleisure.com/articles/americas-best-farmers-markets>, accessed 21-06-2012.

Hess, Eric. 2012. "Freeing Food Carts." *Sightline Daily*. <http://daily.sightline.org/2012/03/15/freeing-food-carts/>, accessed 21-06-2012.

Heying, Charles. 2011. *Brew to Bikes: Portland's Artisan Economy*. Portland, OR: Ooligan Press.

Gross, Matt. "Portland's Food Cart Scene", *The New York Times* video,

<http://video.nytimes.com/video/2009/05/08/travel/1194840085440/portland-s-food-cart-scene.html>, accessed 18/06/2012.

Johnson, Steven Reed. (2001) *The Transformation of Civic Institutions and Practices in Portland, OR, 1960-1999*. Toulon School of Urban Studies and Planning, Portland State University.

League of American Bicyclists, 2011, <https://public.sheet.zoho.com/public/bikeleague/2000-to-2010-bike-commuters-largest-70-2-1>, accessed 18/06/2012.

Manning, Ivy, Patrick Alan Coleman and Liz Crain. "Portland's Food Rules," *Cooking Light*, <http://www.cookinglight.com/healthy-living/travel/portland-food-scene-00412000071132/>, accessed 18/06/2012.

Mayer, Heike. 2003. *Taking Root in the Silicon Forest*. Toulon School of Urban Studies and Planning, Portland State University.

Ozawa, Connie P. (ed.) 2004. *The Portland Edge: Challenges and Successes in Growing Communities*. Washington, Covelo, London: Island Press.

Putnam, Robert. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon & Schuster.

----- 2003. *Better Together: Restoring the American Community*. New York: Simon & Schuster.

Sullivan, Edward J. 2012. "The Quiet Revolution Goes West: The Oregon Planning Program, 1961-2011." *John Marshall Law Review*. 45:357-395.

Downtown Portland's "transit mall" with dedicated bus lanes and rail tracks.



Green Storm Water Facility: Street runoff is directed into bioswales, where vegetation filters the stormwater before entering the water table.





Aerial tram connecting main campus of Oregon Health Sciences University with the South Waterfront