

## **Benefits of Urban Community-Managed Open Space**

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Baltimore's nearly 12,000 vacant lots – 5 percent of all parcels in the city – reduce property residents' quality of life and depress property values.<sup>1</sup> Fortunately, throughout the City, residents have taken the initiative to turn vacant lots into community assets: community vegetable gardens, pocket parks, and recreational spaces. While some prove transient, others become multi-tasking oases that provide social, economic, and environmental benefits.

### *Social Benefits*

When residents work together to turn a vacant lot into a community garden, pocket park, or recreational space, they do much more than push out blight with beauty – they provide their neighborhood with a wide range of social benefits, from physical and mental health benefits to a reduction in crime.

#### *The Studies*

Crime Reduction: Before the Duncan Street Miracle Garden in East Baltimore was founded in the late 1980s, it was the site of dumping and crime such as rape; now it is a beautiful garden where people are willing to work alone. The Memory Garden in Sandtown/Winchester was planted on a corner where there had been a number of shootings; there have been none since. Drug-related debris, once a mainstay of trash pick-ups at the site of Homestead Harvest, has disappeared. In these and other cases, cared-for open spaces appear to reduce crime. A 2008 study on the “broken windows” theory provides documentation of this effect, showing that “changing the nature of a place had a stronger effect on crime than misdemeanor arrests.”<sup>2</sup> The study examined the effects of three interventions in police “hot spot” areas in Lowell, Massachusetts: misdemeanor arrests, social services, and reducing physical disorder. Within the study period, modifying the physical environment so that it is more orderly produced the greatest reduction in police calls.<sup>3</sup>

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1. “A Plan to Create the Baltimore City Land Bank” (Baltimore Housing, October 9, 2007), p. 5.

2. Carolyn Y. Johnson, “Breakthrough on ‘Broken Windows,’” *Boston.com*, Feb. 8, 2009, [http://www.boston.com/news/local/massachusetts/articles/2009/02/08/breakthrough\\_on\\_broken\\_windows/?page=1](http://www.boston.com/news/local/massachusetts/articles/2009/02/08/breakthrough_on_broken_windows/?page=1).

3. Anthony A. Braga and Brenda J. Bond, “Policing Crime and Disorder Hot Spots: A Randomized Controlled Trial,” *Criminology* 46:3 (2008), p. 577-607.

Health: A growing literature documents the physical and mental health benefits of greening for various populations. For example, a review of numerous studies of children and nature suggests that “contact with nature is supportive of healthy child development in several domains – cognitive, social, and emotional.”<sup>4</sup> Other studies report on reduced violence in public housing residents with a view of trees; improved behavior in Alzheimer’s patients in settings with gardens; and improved healing in surgery patients with a view of greenery instead of a view of a brick wall.<sup>5</sup> As one social scientist sums it up, “the complete range of findings....point in the same direction, which is that nature is a key component of a healthy human habitat.”<sup>6</sup>

Mental Health and Community Well-being: A 2007 study notes that “there is increasing evidence that residents of urban neighborhoods with poor living conditions and few environmental amenities for restoration display more symptoms of chronic stress and poor health independent of the individual characteristics of residents.”<sup>7</sup> In contrast, according to this and similar studies, natural views and settings provide “psychological restoration.” These results are particularly pertinent in light of a 2008 Johns Hopkins study showing that residents of some of Baltimore’s more violent and impoverished neighborhoods have higher risks of heart attack and stroke.<sup>8</sup>

Nutrition: According to a 2007 study by the Job Opportunities Task Force, low-wage Baltimore residents pay up to \$704 more in groceries annually than wealthier Baltimoreans.<sup>9</sup> Corner grocery stores, which many poorer residents must depend on, have high prices and little or no fresh produce. Community gardens can help alleviate this disparity. According to a 1999 study by the Ohio State University Extension Service, community gardeners’

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4. Andrea Faber Taylor and Frances E. Kuo, “Is Contact with Nature Important for Healthy Child Development? State of the Evidence,” in Christopher Spencer and Mark Blades, *Children and Their Environments: Learning, Using and Designing Spaces* (Cambridge: Cambridge University Press, 2006).

5. Frances E. Kuo and William C. Sullivan, “Aggression and Violence in the Inner City: Effects of Environment via Mental Fatigue,” *Environment and Behavior* 33:4 (July 2001), p. 543-571; and Agnes E. van den Berg, Terry Hartig, and Henk Staats, “Preference for Nature in Urbanized Societies: Stress, Restoration, and the Pursuit of Sustainability,” *Journal of Social Issues* 63:1 (2007), p 79-96.

6. Frances Kuo quoted in Keith G. Tidball and Marianne Krasny, “Community Greening Scholars Talk Shop: Highlights, Findings, and Future Directions for the Field,” *Community Greening Review* 14 (2009), p. 4-40.

7. Van den Berg et al., “Preferences for Nature,” p. 89.

8. *Baltimore Sun*, July 17, 2008, p.1. The article reports on Toms Augustin et al., “Neighborhood Psychosocial Hazards and Cardiovascular Disease: The Baltimore Memory Study,” *American Journal of Public Health*, July 2008.

9. *Overpriced and Underserved: How the Market is Failing Low-Wage Baltimoreans*, Baltimore: Job Opportunities Task Force, 2007, p. 93.

consumption of produce was about twice the national average (6.3 to 7.5 daily servings compared to 3.4 to 4.3 servings).<sup>10</sup>

### *Economic Benefits*

Community-managed open spaces increase property values – most likely because they make neighborhoods more desirable by making them cleaner, greener, and more sociable.

#### *The Studies*

A 2004 study from the Wharton School of Business looked at the effect of vacant lots and maintained greened lots in a neighborhood with depressed property values. It estimated that a house on a block with vacant lots loses 4 to 11 percent of its value (\$1,120 to \$4,370), depending on the percentage of vacant lots, and that houses near maintained greened lots rose in value by an average of \$13,000 (more than 13%).<sup>11</sup>

A New York University study looked at community gardens in New York City. It found that “the opening of a community garden has a statistically significant positive impact on the sales prices of properties within 1000 feet of the garden, and that the impact increases over time. Higher quality gardens have the greatest positive impact,” and “gardens have the greatest impact in the most disadvantaged neighborhoods.” For New York City, this translates to an additional \$792,000 in property taxes per garden over 20 years.<sup>12</sup>

A study from the Genesee Institute, the outreach and research arm of the Genesee Land Bank in Michigan, emphasizes that “ecosystem values” – such as shade, habitat and stormwater management – can “help to ensure property values for the long-term.”<sup>13</sup> The study suggests that instead of aiming to receive tax revenue from all lots, cities can increase assessments by increasing neighborhoods’ livability with green space.

### *Environmental Benefits*

Community-managed open spaces help make Baltimore a healthier ecosystem, both by providing habitat for animals such as migratory song birds and by providing “ecosystem services” such as filtering stormwater and helping to balance the “heat island” effect.

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10. Cited in Kate P. Edwards, “Planning an Urban Community Garden,” master’s thesis, Georgia Institute of Technology, p. 9.

11. Susan Wachter, “The Determinants of Neighborhood Transformations in Philadelphia – Identification and Analysis: The New Kensington Pilot Study,” Wharton School, 2004.

12. Vicki Been and Ioan Voicu, “The Effect of Community Gardens on Neighboring Property,” *Real Estate Economics* 36:2 (Summer 2008), p. 241-283.

13. Joan Iverson Nassauer et al., “Vacant Land as a Natural Asset: Enduring Land Values Created by Care and Ownership,” Genesee Institute, 2008, p.3.

Stormwater management: Open land, particularly spaces that easily soak up rain such as gardens, turn stormwater from a pollutant to a resource. Rain absorbed into the soil is water that is not washing trash and toxic particles into the sewers and Chesapeake Bay.<sup>14</sup>

Air Quality: Green spaces improve air quality because plants absorb carbon dioxide and release oxygen. Trees are particularly helpful, since they are large and also because their leaves remove toxic particles from the air. Vegetable gardens also improve air quality by reducing the pollutant and carbon dioxide emissions produced in feeding the city.

Excess heat: Roofs and paved surfaces get very hot in the summer, making cities hotter than surrounding areas. Open spaces help balance this effect. That is, our neighborhoods are more livable if they are not entirely paved.

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14. Stormwater management goals are included in "Live, Earn, Play, Learn, The City of Baltimore Comprehensive Master Plan: A Business Plan for a World Class City 2007-2012," Baltimore City Planning Commission, 2006, in LIVE goal 2, objective 5; and PLAY goal 3, objectives 1 and 2.