



Community gardens or vacant lots? Rethinking the attractiveness and seasonality of green land uses in distressed neighborhoods



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ABSTRACT

Legacy cities are increasingly including green land uses in their master plans. Therefore, it is important for city planners and policy makers to understand the factors that influence the attractiveness of green spaces. The purpose of this study was to empirically compare the perceived attractiveness of community gardens against that of vacant lots in each of four seasons, as well as to determine the features of community gardens that contribute to their attractiveness. The findings revealed that community gardens were perceived as more attractive than vacant lots and that the level of perceived attractiveness varied by season. More importantly, regardless of season or physical features, the level of maintenance of a green space was shown to have the largest influence on its attractiveness. The author concludes that, rather than create design guidelines for green land uses, city planners and policy makers may find it more effective to implement maintenance standards and proactive code enforcement.

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1. Introduction

Legacy cities (also known as shrinking cities) are cities that have experienced substantial population losses for decades due, in large part, to deindustrialization (Schilling and Mallach, 2012). One of the most difficult challenges facing legacy cities is how to repurpose the vacant lots left behind when homes are demolished. Fortunately, some residents and community groups have recreated many vacant spaces as community gardens. In recognition of these efforts and the reality of low housing demand, legacy cities like Detroit and Flint, Michigan (USA), are starting to include green land uses, like community gardens, in their land use plans and frameworks (Detroit Works, 2012; Houseal Lavigne Associates, 2013). Although the social and nutritional benefits of community gardens have been fairly well established in the literature (Firth et al., 2011; Carney et al., 2012; Barthel et al., 2013), few studies have examined whether community gardens compared to vacant lots benefit communities in terms of perceived attractiveness.

Two recent literature reviews—Draper and Freedman (2010) and Guitart et al. (2012)—highlight the lack of attention given to the study of community garden attractiveness. Draper and Freedman (2010) found nine studies that “. . . mentioned neighborhood beautification as either an intentional purpose or unintended benefit of

community gardens” (p. 483, emphasis added), but none of these studies explicitly examined the factors that *affect* garden attractiveness like seasonality. Similarly, Guitart et al. (2012) found 87 studies on community gardening between 1985 and 2011, none of which primarily focused on attractiveness. Furthermore, both literature reviews note the dearth of quantitative studies and studies that include control groups.

To help fill these gaps in the literature, this study examined the following three related questions:

1. Are community gardens perceived as more attractive than vacant lots (the control group) when controlling for level of maintenance?
2. Are vacant lots perceived as more attractive than community gardens during the non-growing season? In other words, is there an interaction effect between land use type and season?
3. What can be done to improve green spaces to make them more attractive community assets year round?

The concept for this study arose from the author's experience working for the City of Columbus, Ohio's (USA) land bank. The Columbus land bank typically acquires properties in weak market areas of the city, where there is low demand for new development. To reduce maintenance costs and provide additional benefits to the community, many of the land bank's lots are leased for community gardens. However, city staff members have questioned whether some lots should continue to be leased due to the unsightliness

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of some community garden spaces, especially during the non-growing season. This observation led to questions about when it was best, from an esthetic perspective, to lease lots for community gardens.

The attractiveness of community gardens matters. The city does not want to receive complaints from residents about how properties look—especially not properties it owns. Aptekar (2015) found a similar response from New York City officials who emphasized the attractiveness of community gardens over other considerations. She calls this view of community gardens the “green spaces” view, which contends that community gardens should be green, lush, pleasant, neat, and orderly. This view is in contrast to three other views of community gardens: the private property view—where gardeners should be able to do whatever they want with their individual plots, even if the property is leased from the city; the farm view—where the purpose of the garden is to grow food, and esthetics are secondary, if they matter at all; and, finally, the community space view—where the social roles and functions of the garden are more important than other concerns (Aptekar, 2015). This study emphasizes the green spaces view because it has received less attention in the literature than the other three perspectives.

A related question was whether concerns about attractiveness could be addressed by creating design guidelines for community garden spaces. Many American towns and cities have some form of design review before building permits are issued. The design review process requires developers to submit renderings of their proposed buildings and landscapes that conform to local design guidelines (Punter, 1999; Shirvani, 1981). The same concept could be applied to community gardens. Before a garden lease is granted, the city could require prospective garden groups to submit a design proposal that meets a predetermined set of design guidelines. This study was intended to clarify whether these types of guidelines are needed and what features might be included in them. By suggesting design guidelines, the author does not mean to imply that “high design” is necessary for community gardens or that a landscape architect must be hired to create professional renderings before a lease is approved. A simple, hand-drawn sketch of the space with the features labeled may be sufficient. There is no need to create undue hardship for garden groups; rather, the purpose of the guidelines is to achieve a balance between garden groups’ desires and the esthetic concerns of nearby residents and city staff.

Finally, if community gardens are deliberately designed to maximize attractiveness, the benefits of this land use for the community should be greater. This presumption is supported by studies focusing on “cues to care,” defined as “landscape characteristics that visibly demonstrate human presence to care for the landscape and imply a broader attention to societal or neighborhood norms” (Nassauer and Raskin, 2014). An increased sense of safety, neighborhood satisfaction, and lower crime rates have been correlated with specific cues to care (e.g., mown turf, trimmed trees and hedges, gardens, home and outdoor property maintenance) (Basolo and Strong, 2002; Nassauer and Raskin, 2014). To identify the independent effects of design and maintenance (both of which may be associated cues to care), a measure of maintenance is included in this study. Additionally, to further explore which design features enhance community garden attractiveness, this study draws upon Ulrich’s seminal (1983) work “Esthetic and Affective Response to Natural Environment.” Ulrich (1983) posits that the following six properties determine preferences for unspectacular, natural scenes (p. 105):

1. Complexity is moderate to high.
2. The complexity has structural properties that establish a focal point and other order or patterning is also present.

3. There is a moderate to high level of depth that can be perceived unambiguously.
4. The ground surface texture tends to be homogeneous and even and is appraised as conducive to movement.
5. A deflected vista is present.
6. Appraised threat is negligible or absent.

Since community gardens are unspectacular, natural scenes, Ulrich’s properties may be useful when determining which garden features result in greater attractiveness. This idea is further explored in Section 2, where Ulrich’s work is used to support the selection of the independent variables.

2. Methods

The study design consisted of measuring the perceived attractiveness of 11 community gardens and 9 vacant lots in Columbus, Ohio, during each of four seasons. A total of 80 site photographs (20 sites × 4 seasons) were rated by 182 participants.

Site selection: Although Columbus is not a per se legacy city, the properties selected for this study are located in distressed neighborhoods representative of legacy city neighborhoods. Columbus land bank properties tend to be located within the city’s 1950 boundary, which is an area containing population losses and other challenges similar to those of legacy cities in Ohio (The Columbus and Franklin County Consortium, 2009).

Eleven garden sites were selected at random from land bank properties leased for community gardens. Nine land-bank-owned, vacant lots similar in size and location to the aforementioned gardens were included for control and comparison. Because community gardens are an active land use that can add value to surrounding properties (Voicu and Been, 2008), they were considered to be distinct from vacant lots in this study and were not considered a form of vacancy awaiting development.

Data collection: Columbus is located in the humid continental climate zone (Ritter, 2012). In this zone, July is prime growing season and most produce are harvested between July and September. Because of variations in weather conditions by season, it was necessary to photograph each of the 20 sites at 3-month intervals in 2011 (January—mid winter, April—mid spring, July—mid summer, and October—mid fall). A total of 80 photographs were shot using the same perspective (i.e., from the sidewalk, in the middle of the street-frontage, at a height of 5 feet). The location and height were chosen to represent a pedestrian’s perspective while walking past the sites. Care was taken to ensure that photographs for each season were shot from the same location, at the same time of day (early afternoon), and on days with no precipitation. Information on the square footage of each site was obtained from the county auditor’s office to control for the site size.

To measure the perceived attractiveness of each site during each season, 182 adults rated the attractiveness of the photographs on a scale ranging from 1 to 7, with 1 being “very unattractive” and 7 being “very attractive.” Each participant was asked to rate 20 photographs randomly selected from the 80 total photographs. Random sampling of photographs was used to reduce rater-fatigue and to ensure that each photograph received careful consideration. Using this method, each photograph was rated by at least 39 participants. The actual ratings for the sites are likely to be statistically independent since each study participant was given a random sample of 20 photographs in a random order. Thus, the likelihood of a participant rating the same site for all four seasons is low, as is the likelihood of being presented images of the same site consecutively. To confirm that the assumption of independence was not violated, the Durbin–Watson test was used when appropriate.

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