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# TECHNOLOGY BULLETIN

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Cities are characterized by a whole host of social ills — from anonymity, to incivility, to outright violence — that are strikingly less prevalent in rural areas. Why is this? The physical environment a person lives in has profound effects on their social behavior. Social psychologists have shown that people in cities behave differently from people in rural areas in part *because* they

set out to answer these questions in one of the grimmest of urban settings — public housing in a major city.

As these pictures show, the number of trees immediately outside each of the 28 buildings at Robert Taylor Homes in Chicago vary considerably. Some buildings are surrounded only by concrete and asphalt, while others have trees, grass, and

even flowers. Using aerial photographs and on-site analyses, we chose 10 buildings with trees and 8 buildings without trees. We then interviewed 75 African-American women living in those buildings about their social behavior and compared the answers from women living in different buildings.

While the amount of plant life varies from building to building, very little else does. The buildings are architecturally identical. There are no systematic differences in the groups of people living in one building or another, perhaps because residents have very little

choice in the specific apartment they are assigned. This gives us some confidence that differences we find in social behavior of people living in buildings with and without trees are really due to the trees — not differences in crowding, noise levels, or availability of open space, not differences in race, economic status, or even nature preferences in the people living there.

Do people who live in buildings with

live in crowded, noisy places, or in places that lack open space. But cities differ from rural areas in another important way as well — rural areas have something that's often lacking in urban areas — nature. Can part of the unsociableness of city dwellers be traced to the lack of plants in their everyday surroundings?

Do people who live in buildings with

## Do Trees

## Strengthen

## Urban

## Communities,

## Reduce

## Domestic

## Violence?



Two buildings at Robert Taylor Homes, Chicago, Illinois.



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trees get along and treat each other better than people living in buildings without trees? The results of these interviews are not only interesting; they also provide new arguments in support of urban forest programs. Let's look at some of the highlights.

## DO TREES STRENGTHEN URBAN COMMUNITIES?

For some time there have been stories about community gardens revitalizing inner city urban neighborhoods (Francis, Cashdan & Paxson 1984; Lewis 1972, 1979). Until now, however, no one has systematically examined the effect of trees on relations among neighbors.

We are finding signs of stronger communities where there are trees. In buildings with trees, people report significantly better relations with their neighbors. In buildings without trees, people report having fewer visitors and knowing fewer people in the building. In buildings with trees, people report a stronger feeling of unity and cohesion with their neighbors; they like where they are living more and they feel safer than residents who have few trees around them.

Why might trees contribute to better relations among neighbors? In 100 observations of outdoor common spaces in two public housing developments, we are finding that outdoor spaces with trees are used significantly more often than identical spaces without trees. We suspect that in urban areas, trees create outdoor spaces that attract people. When people are drawn to spaces with trees, they are more likely to see and interact with their neighbors, more likely get to know each other and become friends.

Stronger ties among neighbors may be a good thing, but it becomes an even more convincing reason to support urban forests when you consider what neighborhood ties mean for residents' functioning. There is evidence that people with strong neighborhood ties are more physically healthy (Cassel 1976; Cobb 1976), more mentally healthy (Gottlieb 1983), less likely to neglect or abuse their children (Garbarino & Sherman 1980), and less likely to rely on costly social services in times of need (Biegel 1994; Gottlieb 1983; Collins & Pancoast 1976). In other words, these findings suggest that by investing in urban forests, a city might reap such dividends as a lowered incidence of child abuse, and decreased demand on social services.

## DO TREES REDUCE VIOLENCE?

Two studies have shown a connection between trees and lower levels of violence (Mooney & Nicell 1992; Rice & Remy, in press). But these studies involved prison inmates, and Alzheimer patients living in nursing homes. What about people who are not living in institutional settings?

We are finding less violence in urban public housing where there are trees. Residents from buildings with trees report using more constructive, less violent ways of dealing with conflict in their homes. They report using reasoning more often in conflicts with their children, and they report significantly less use of severe violence. And in conflicts with their partners, they report less use of physical violence than do residents living in buildings without trees.

Why might trees contribute to less violence in the home? Imagine feeling irritated, impulsive, about ready to snap due to the difficulties of living in severe poverty. Having neighbors who you can call on for support means you have an alternative way of dealing with your frustrations other than striking out against someone. Places with nature and trees may provide settings in which relationships grow stronger and violence is reduced.

## WHAT DOES THIS MEAN FOR URBAN FORESTRY?

In times of tight budgets; public officials look to reduce costs, and in doing so it is reasonable that they eliminate amenities. Trees have often been considered amenities. But what if urban foresters could report to city officials that trees help lower social service budgets, decrease police calls for domestic violence, strengthen urban communities, and decrease the incidence of child abuse in a city? Would the urban forest be considered an amenity then?

In this study, we are finding that urban forests help build stronger communities, and in doing so, they contribute to lower levels of domestic violence. Although no strong conclusions can be made from a single study, these findings are encouraging and exciting. At a time when the nation's attention is focused on issues such as crime prevention, health care, and the plight of single mothers, these findings suggest that trees can help address some of the most important problems in society today. We believe that urban forests are not mere amenities — that they are a basic part of the infrastructure of any city, as necessary as streets, sewers, and electricity.

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