

HOW CAN URBAN TREES IMPROVE THE SOCIAL ECOLOGY OF HUMANS?

Da [Arboricoltura Urbana-Arbiculture and Urban Forestry di Francesco Ferrini](#)

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Anecdotally, I am certain that many of you will attest to tree presence being highly favoured in urban environments – not only for the environmental and ecological benefits they provide, but for the benefits they offer humans on an economic and social level.

The focus of this post is a study by Frances Kuo, published in 2003, entitled *The Role of Arboriculture in a Healthy Social Ecology*. Kuo sought to analyse exactly how, in the US city of Chicago, urban trees influence human social interactions, and the results are – whilst not unexpected – very interesting.

In terms of methodology, Kuo remained brief in description (instead referring readers to the respective journal articles for each study that was only summarised in this article) selected different housing areas of Chicago that met four different criteria: (1) a variation in green cover immediately surrounding the area (from areas laden with trees to areas void of them); (2) a constant with regards to other environmental features, for control purposes; (3) housing areas contained residents that were randomly assigned abodes (public housing), so to negate the bias encountered where studying social populations where people have chosen to live in the area, and; (4) residents have no influence over how the vegetation in the area is managed. In light of these criteria, two housing developments were identified, and the residents' social undertakings were assessed and subsequently separated into different categories. Results are listed below.

These flat blocks, known as the Robert Taylor Homes development, were featured within the study as one of the two areas. Source: [The Uppity Negro](#). The Ida B. Wells housing development was the other featured social housing area to feature in the study. It has since been knocked down. Source: [Wikimedia Commons](#).

Enticing residents to venture 'outdoors'

When shown different pictures of trees within an urban landscape, residents were found to strongly prefer more trees in a landscape than less (54 per hectare, in this study), and stated that if their courtyards had more trees contained within them then they would feel more encouraged to utilise the grounds. This suggests that trees can be strategically planted to entice residents to actually use the outdoor space surrounding their property, which in itself brings social interaction in – largely – a positive manner.

Encouraging adults to use outdoor spaces

Whilst the above study was hypothetical, Kuo found that, when transferred into reality, results were very similar. Not only are adults more likely to use outdoor space if the space contains plenty of trees, but venturing adults will be disproportionately concentrated in areas where there are many trees compared to where there are few or no trees. Additionally, the closer the trees were to properties, the more likely it was to have adults use the outdoor space nearby – to the point that, where there were no trees at all, the space was not used.

Encouraging children to use outdoor spaces

Much like with adults, children also are disproportionately drawn to areas with plenty of trees. In these heavily-treed areas, it is also more likely that the children are engaged in play (in place of other activities) – particularly creative play. Kuo suggests here that not only can it be said that trees draw both adults and children out in greater concentrations, but this greater density of people encourages social interaction among communities.

Promoting social interactions between residents

Building on the comments above, results suggest that the frequency of activities such as talking, playing card games, and repairing cars, is positively linked to tree cover. 73% more individuals were shown to interact socially where tree cover was significant, with the results showing adults were most noticeably impacted.

Facilitating child-adult interactions

Mixed-age groups consisting of children and adults are more likely to be observed in areas of high tree cover. This is important for children in particular, as it enables them to develop the necessary skills for adulthood, and also stops children from engaging in anti-social behaviour (due to adult supervision).

Improving neighbourhood social ‘ties’

Trees encourage neighbours to interact informally with one another, improving social ties amongst communities and making communities stronger as a unit – to the point that residents will share resources with one another out, particularly where there is poverty. Individuals living in areas with higher tree cover also reported significantly greater amounts of social interactions with neighbours, compared to barren areas. This ties in with the greater use of outdoor space by residents in heavily-treed areas.

Heightening the sense of safety

Kuo concludes that, as a result of studies into how safe residents feel in areas with plenty of trees and areas lacking, those in locations with many trees reported feeling much safer. Additionally, residents with nearby access to tree cover reported feeling more adjusted to their home, compared to those where trees were not available nearby.

Reducing graffiti and other minor disorders

Vandalism, graffiti, and incidences of littering were found to be at lower rates in areas with higher green cover, as were anti-social activities such as strangers loitering, individuals making a lot of unnecessary noise, and such forth. Kuo suggests this may be because green space improves peoples’ level of care and awareness, making anti-social behaviour both less attractive harder. However, the increased cohesiveness of areas with many trees may also make anti-social behaviour less enticing.

Impacting crime levels

Put simply: the greener the surrounds of the building, the lower the observed crime rate – this applies to crimes such as property crime and violent crime.

Source: Kuo, F. (2003) [The role of arboriculture in a healthy social ecology](#). *Journal of Arboriculture*. 29 (3). p148-155.

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