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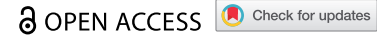


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CASE STUDY



Co-creating places for urban health & healing: the case of Pogo Park

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ABSTRACT

This case study explores how an urban, low-income, community in Richmond, California, came together to reclaim a local park, redesign and redevelop it, and the impacts that process and the new green space is having on local residents. The park is called Elm Playlot and the community group, Pogo Park. Methods used to generate the case study included original document review, participant observation, and interviews, as well as data from two community surveys and a youth photovoice project. The case study emphasizes that urban health promoting and healing physical and social transformations must be co-created, community leadership, ownership and economic benefits must be prioritized, and decade-long commitments from residents, local government and non-governmental organizations, not one alone, are necessary. We also found that redevelopment of Pogo Park contributed to significant reductions in self-reported fear of violence and improvements in community social connections, trust and overall stress for those living in the parks' Iron Triangle neighborhood. Further, two years after the completion of the park, life expectancy in the neighborhood had increased by five years, the number of gun homicides was reduced by over 30%, and almost 60% of residents were rating their health as good or excellent.

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healing; urban violence;
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Introduction

Richmond, California is a working-class formerly industrial area in the San Francisco Bay Area. It was the location of the Kaiser Shipyards, which built many WWII ships drawing tens of thousands of workers from across the US. This influx of workers included many immigrants and African Americans. Temporary worker housing was built in Richmond during this time, as was federally subsidized social housing, both of which were segregated by race. African American workers were denied access to the new housing and were forced to live in an area of older housing segregated from the rest of Richmond called the Iron Triangle. The neighborhood got its name because it was bordered on its three sides by railroad tracks serving the waterfront industries. By the 1980s, the Iron Triangle would also become the home of immigrants from Asia and Latin America and was an area with the greatest environmental risks and poverty rates, along with the lowest life expectancy and household incomes in California (CCHS 2014). By the 1990s, Richmond, California was also the ninth most violent city in the US, based on per-capital gun homicides, with the greatest concentrations of murders occurring in the Iron Triangle.

This case study explores how residents of the Iron Triangle reclaimed a park in the community and this park, called Elm Playlot, has acted as a new 'heartbeat' of the neighborhood by restoring life, reducing violence, helping residents heal from traumas, creating new jobs and economic investments, and enhancing trust among neighbors. The process was led by the

community organization called Pogo Park and included important partnerships with local government, private philanthropy and academic institutions (Figure 1).

Case study methods

To construct this case study, we interviewed 22 community members and seven city officials. One half of the community informants were selected by Pogo Park staff, the others by co-authors who live in Richmond. City staff were identified by those who work in the agencies responsible for city management, parks, planning, public safety and economic development, and were knowledgeable about the Iron Triangle and Pogo Park. We also reviewed over 12 years of original documents provided by the City of Richmond and Pogo Park, including public meeting summaries, plans, grant proposals, annual reports, and program evaluations. Two co-authors (JG & BH) used participant observation as Pogo Park employees and community residents to contribute to the narrative.

To understand the impacts the park redevelopment might be having on community residents, we analyzed two waves of a household survey, administered in 2009 and 2019, that asked residents about park use, community safety, how well they knew their neighbors and how often their children were physically active, among other questions. Community residents helped design the original

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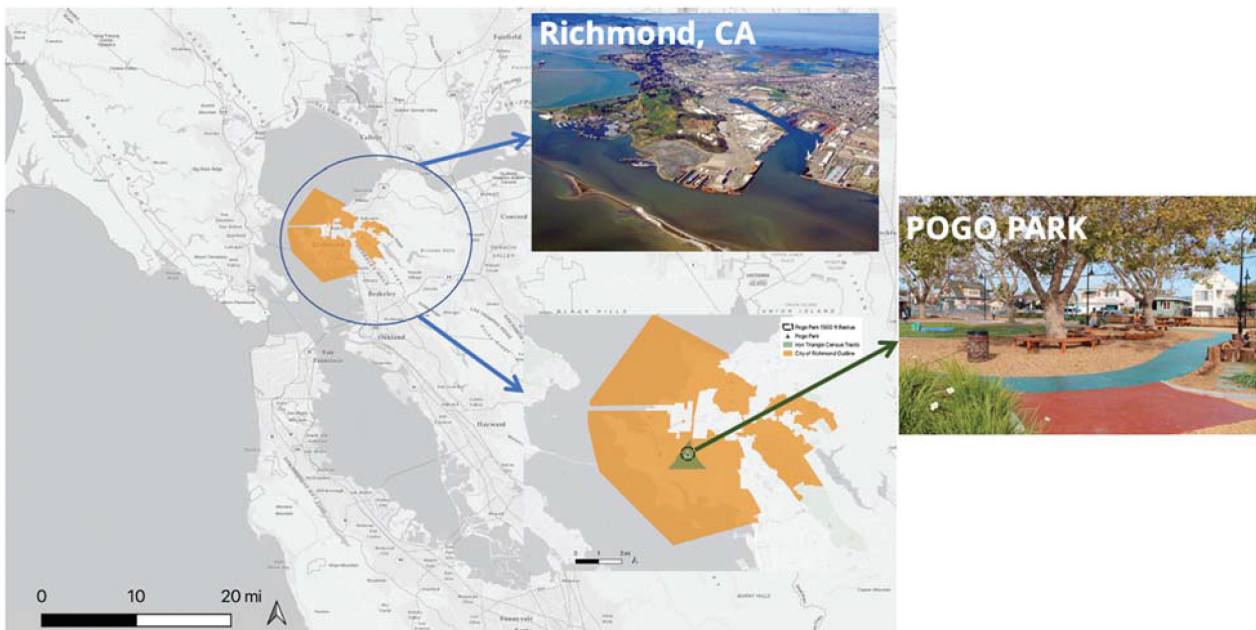


Figure 1. Richmond, California in San Francisco Bay Area, Iron Triangle & Pogo Park.

questionnaire and were trained to gather the data through door-to-door surveying, making this a community-based participatory research project. The 2009 survey was led by researchers from Children’s Hospital and Research Center Oakland (CHRCO) and the recruitment processes, participant consent and data protections were approved by the CHRCO Institutional Review Board (#200887). The 2019 survey was led by researchers from the University of California, Berkeley, and recruitment, consent and protections of respondent confidentiality were approved by the UCB IRB (#2018-03-10893). Both surveys aimed to reach 250 households, half in the Iron Triangle neighborhood within a 500 foot radius of Elm Playlot and the other half in the Coronado neighborhood, 1.5 miles away and within a 500’ radius of a ‘control site’ park named Virginia Playlot. The first survey was administered before the Elm Playlot redevelopment began and the second wave four years after reconstruction was complete. Descriptive statistics were computed of responses from each survey wave and chi squared tests were used to determine levels of significance.

We also include survey data results from the Richmond Community Survey (RCS), which has been administered biannually since 2007 by the National Research Center and the International City/County Management Association (City of Richmond 2022). This survey samples the entire city, and we report responses from those living within the Iron Triangle and outside, for the same years (2009 & 2019) as the household survey. We share community members’ responses to survey questions asking about self-rated health, overall quality of life, neighborhood image, qualities of recreation, and perceptions of crime and safety.

Finally, we share results from a 2019 youth photovoice project, that was co-created by Pogo Park youth and UC Berkeley researchers. Photovoice is a visual research methodology where participants identify and photograph issues of importance to them and include a brief narrative about the image (Wang and Burris 1997). In the 2019 project, 12 young people from a local high school were selected by Pogo Park staff to take pictures and narrate what they saw in the Iron Triangle. Using all these data, we describe how residents organized to reclaim Elm Playlot, re-designed the space, rebuilt it themselves and now staff its programming and overall management. We present the results of the research data separately from the descriptive case study and discuss ways these data contribute to our understanding of the health and healing aspects of the park redevelopment project.

Urban parks as healing spaces

In this case study we explore how an urban park in the heart to one of America’s most violent neighborhoods might be contributing to improved health and supporting residents’ healing from the inequities of violence, racial segregation and environmental injustices. While no panacea, research has shown that urban green spaces can be sites of health and healing when local people have some control over the physical improvements, and the space includes social programming that deliver other community benefits, such as jobs, to the local population (García-Lamarca *et al.* 2022). Today, urban parks are frequently characterized as therapeutic landscapes that contribute to human healing through the interaction of nature, people engaging with natural and built environments, and

the building of social connections with others (WHO 2017, Bell *et al.* 2023). Urban parks are increasingly applying Biophilic design principles, building on Edward O. Wilson's notion of Biophilia, which emphasizes that human contact with nature can help us connect to all living species and those connections can help us heal (Wilson 1986). For example, in South Korea, Health Improvement Camps are bringing families and children to national parks to address stress-related auto-immune diseases, such as eczema and asthma (IUCN 2019). In Japan, researchers have been studying the mental and physical health impacts of 'forest bathing' or known in Japanese as *Shinrin-yoku*, which involves meditative walks through nature for at least 15 minutes. After forest bathing, practitioners have been shown to have decreased their heart rate, levels of cortisol – a key stress hormone – and blood pressure (Kobayashi *et al.* 2018).

The health benefits of being in nature may be the result of what researchers call Attention Restoration Theory (ART). ART is what happens when our directed attention, what we use constantly to focus and problem solve, is turned down and we allow our brains to recover. This process of 'turning off' from constant focus on external challenges restores our tired and depleted brains (Kaplan 1993). When in nature, walking or just sitting, ART research suggests we are more likely to let our brains 'chill-out' (not the technical term) which can improve our mood, self-esteem, ability to pay attention later, and our imagination (Faber Taylor and Kuo 2009, Berman *et al.* 2012).

Recent reviews of green space and health found that individuals engaging with natural outdoor environments demonstrated mental health improvements, as well as physical and cognitive health benefits (Nejade *et al.* 2022). Other reviews have suggested that urban greening has significant positive health benefits by improving the number and quality of one's social contacts, relations, supports and connections (Huang and Lin 2023). Researchers have also found that regular exposure to urban green space can contribute to higher birth weight babies and lower overall mortality rates when these spaces reduce population exposure to air pollution and other toxins, encourage physical activity, support sleep, and offer people relief from psychosocial stressors (Dzhambov *et al.* 2020). In other words, a plethora of findings suggest that it not just the presence or absence of a physical urban green space, but whether or not the space is accessible for all, has culturally appropriate activities, is safe and promotes social interactions – all relational characteristics that turn a space into a *place* (Gieryn 2000, Zhang *et al.* 2022).

The World Health Organization in its 2017 report, 'Urban Green Space Interventions and Health' stated that, 'urban green space interventions seem to be most effective when a physical improvement to the green

space is coupled with a social engagement/participation element that promotes the green space and reaches out to new target groups' (p. 5). In other words, the processes of co-design and co-creating a green space that bring people together can be as or more beneficial for health and healing than the green space itself (Maas *et al.* 2009). Participating in park planning has shown to enhance one's sense of place and increase the likelihood of experiencing health benefits (Ramkissoon *et al.* 2018). Meaningful resident participation and control over the pace and content of park redevelopment efforts might also help avoid 'green gentrification', or the ways impoverished residents, the elderly and people of color can be displaced from their communities after the redevelopment of parks, new trees are planted and general environmental remediation takes place (Jelks *et al.* 2021).

Access to nature and to safe, high-quality urban parks is not distributed equitably. People of color are three times more likely to live in a nature-deprived area than whites (Borunda 2020). This can be especially important for reducing and healing from the traumas associated with community violence. South (2018) and colleagues found that urban greening in majority Black and Brown Philadelphia neighborhoods helped reduce psychological distress and firearm violence experienced by local residents (South *et al.* 2018). Jay *et al.* (2022) found that tree canopy in a neighborhood can also contribute to a reduction in the frequency of firearm violence. In a study across six United States cities, these researchers found that an increase in tree cover was associated with an almost 10% reduction in firearm violence. Yet, vast racial, ethnic and economic disparities persist over which urban groups benefit from the protective factors associated with urban greening and tree canopy (Locke *et al.* 2021, Nardone *et al.* 2021).

In response to these inequities, some medical practitioners are writing 'park prescriptions' to encourage their Black and Latinx patients to seek-out nature's benefits (Robinson and Breed 2019). According to the park prescription research led by Dr. Nooshin Razani, of the University of California San Francisco, when nature access is culturally appropriate, co-created with patients and their families, and frequent (just like taking one's prescribed medication), stress – measured by both perceived stress and cortisol levels – can be reduced (Razani *et al.* 2018). Here we explore whether the Pogo Park redevelopment process might be delivering some of these health and healing benefits to Iron Triangle neighborhood residents.

Community mobilization in the Iron Triangle

The redevelopment of Elm Playlot in Richmond, California's Iron Triangle was started by two

concerned residents, Tonie and Carmen Lee. They both lived next door to Elm Playlot and were tired of the nightly gun shots, drug dealers and overall inaccessibility of the space. They also witnessed the area in steep decline, as houses were boarded up all around the park. Tonie and Carmen, along with neighborhood matriarch Ms. Mason and neighbor Eddie Doss, were then approached by a newly arrived resident Toody Maher. Maher also wanted the space to be accessible and safe, and together they formed the Elm Playlot Action Committee in 2008.

During the same time, the City of Richmond was in the process of updating its General Plan, or its long-range development strategy. By California law a General Plan must include resident input and, during a series of community meetings in the Iron Triangle, residents voiced concerns about local gun violence and the lack of safe places for children to play in their neighborhood. Members of the Elm Playlot Action Committee asked the city to take immediate action since it could be years until the General Plan was completed, approved and implemented. According to then City Manager Bill Linsey, ‘the community activism contributed to the city approving a “face lift” for Elm Playlot’. The city purchased new playground equipment for Elm which arrived by truck in March 2008 (Figure 2). The City of Richmond’s Parks Department installed the equipment. ‘It looked beautiful’, Brandon Harris, a neighbor to the park and now a Pogo Park employee recalled. ‘But within a few days the abandoned dogs were back, graffiti covered all the equipment, and most of it was burned down’ he recalled.

A community-led vision and co-creation

Toody, Tonie, and Carmen took another approach. First, they used their own money to buy a three-foot high fence and wrapped it around the edge of Elm

Playlot. ‘We were reclaiming the space for the community’, said Carmen. Next, they cleaned the lot, brought in a porta-potty bathroom, and planted beautiful flowers and plants around the run-down space. Third, they connected with Joe Griffin, a Richmond resident and UC Berkeley public health student, who was interested in a participatory process that engaged residents of the Iron Triangle to document neighborhood life around the park. Together with Toody, Joe organized a team of youth and adults used a Photovoice process where residents were asked to take pictures of the neighborhood and then write a short description of what that picture meant to them. The objective was to use the images and resident stories to identify what different community members envisioned for Elm Playlot. Many resident photos documented the abandoned houses, garbage and graffiti in and around Elm Playlot as items they wanted the redevelopment to address (Figures 3 and 4).

While the photovoice process was happening, Toody went back to the City of Richmond and negotiated a joint-use agreement for her newly created community group, Pogo Park. In this agreement, the city would maintain the liability insurance for Elm Playlot and provide any major infrastructure services, and Pogo Park was granted the right to design, build and maintain – according to Maher – ‘pretty much everything else above ground’. This created a new opportunity and burden for Pogo Park, since they now needed to raise the financial resources to design, build and staff the park. ‘We were committed to having residents not just co-design the park, but to pay them to build it, program it, and maintain it like it was their own’, recalled Maher.

Toody convinced a nearby artist who owned a warehouse in the neighborhood called Scientific Arts Studio, to lend a helping hand. The studio had professional fabricators who made large sculptures, like the giant baseball glove at the San Francisco Giants’



Figure 2. Elm Playlot in 2008 with new city installed play equipment, before community redesign (Source: Pogo Park).



Figure 3. Young people playing at Elm Playlot before renovation (Source: Pogo Park).



Figure 4. Photos from the 2009 Photovoice process (Source: Pogo Park).

stadium. The artists agreed to train members of the Committee in design and construction, including carpentry and welding. Another Bay Area non-profit called Urban Ecology worked pro-bono to co-organize design workshops where hundreds of residents offered ideas and sketches for the new space. Pogo Park received a grant of \$40,000 from the city to support this design process. The local artists also helped residents build cardboard models of the newly envisioned ideas for Elm Playlot.

James Anderson, who now leads the construction team at Pogo Park, recalled that residents wanted more than to just help design the park on paper. He recalled, 'We needed to see and feel what it might be like. We built temporary equipment and watched how people used it before finishing the design'. As Toody Maher recalled: 'If people wanted to put a tree somewhere, we just went out and got a tree in a five-gallon bucket and put it there, so people could actually see and feel it'. Pogo Park staff, local artists and residents built a to-scale pop-up, or temporary park, out of 2 × 4's and other inexpensive building materials that included swings, benches, and other ideas.

Learning by doing and observing

The Pogo Park staff, which now included half-a-dozen residents, spent time observing how people of different age groups used the park during the day and night, now that the park had lights and a local 'security team' of residents. The idea was for the final design to learn from and respond to local uses and needs. The park 'observers' documented that while kids mostly wanted a space to play, the adults wanted a space where they could congregate with family and friends, cook food and relax, while other adults asked for jobs and if the park could host small enterprises. The teenagers and young adults wanted a space to create, learn, eat and gather with friends, and they emphasized that they needed a safe place to 'decompress from stress'.

The Pogo Park staff also heard and observed that everyone wanted a safe bathroom, a community kitchen and an indoor gathering space. In response, Pogo Park leaders were able to get a used shipping container donated and placed in the park, which acted as a temporary office and meeting space. After observing interactions with this aspect of the pop-up park, design

workshops with residents and architects came up with the idea for a ‘community hub’ or anchor space that included a host of desired amenities (Figure 5). Pogo Park staff used the rendering to approach private philanthropy and individuals to obtain the finances to purchase and renovate an abandoned house adjacent to the park.

Eventually, Pogo Park raised about \$50,000 to purchase the abandoned house. Residents were then trained in construction skills and over a dozen people were hired to work on the new building. The new space included offices, meeting rooms, an industrial kitchen and two wheelchair-accessible bathrooms (Figure 6).

Parks as community development

The purchase of the house was a turning point in the redevelopment of Elm Playlot and the emergence of Pogo Park as a community development organization,

not just a park designer. Pogo Park began working with the City’s Housing Director and convinced him to use a federal grant to purchase and remodel multi-family housing in the neighborhood and to keep the units extremely affordable. The US government’s Neighborhood Stabilization Program was intended to ‘purchase and rehab blighted, foreclosed and abandoned properties and demolish blighted structures all in order to stabilize our most economically challenged neighborhoods’. The partnership with the city led to a joint application to this federal program where Pogo Park would partner with the city’s housing agency to identify properties to be rehabilitated. The application was successful and Pogo Park staff worked with the city to ensure residents weren’t displaced while homes were rehabilitated. They also engaged landlords getting many to agreed not to raise rents in exchange for building improvements.



Figure 5. The Pogo Park community hub vision (Source: Pogo Park).



Figure 6. Rebuilding house adjacent to Elm Playlot into an office, kitchen and bathroom (Source: Pogo Park).

The stabilization and improvement to local housing occurred around the same time as the green-space redevelopment. Local residents were hired to construct all aspects of the park, from its play equipment, to fences and benches, to pathways and gardens, and were paid a living wage for this work (Figure 7). Many residents' incomes improved during this time and, according to Tonie, many of those around the park started to invest their own money into improving housing.

The construction process, like the design, was iterative and slower than expected. 'It would have been nice to complete the whole thing in a few months, but we wanted to build it ourselves. I could pour concrete but didn't know how to weld. So, it took time', James described. When some equipment and landscaping were completed, the residents were trained to build a different area of the park. As Maher noted, 'It was easier to raise money for the physical projects than for the wages to pay people. We could get someone to donate a bench or play equipment, but when it came to funding people and their development, that was much harder'. Thus, Pogo Park often had to slow the construction process until they obtained the resources to pay their staff to be trained and to complete a project.

Expanding the vision/connecting the neighborhood

By 2015 Elm Playlot was largely redeveloped and staffed everyday by local residents. The new staff performed maintenance, developed and led programming for kids and adults, and distributed over 9,000 free meals each year. According to Maher, Pogo Park staff have documented that over 15,000 children visit Elm Playlot each year, and about twice as many adults visit either as chaperones or visitors themselves. Tonie recalled that parents started just 'dropping their kids off at the park since they trusted us so much to take care of them. That was unheard of before we did all

this'. By 2016, the team was so skilled in construction they won a Google Challenge grant to create a spin-off company called *Pogo Park Products*, where they are now co-designing and building equipment for other community park projects. The social enterprise is aiming, according to Toody, 'to be an engine of economic development in the Iron Triangle'.

By partnering with the City of Richmond, Pogo Park was awarded a State of California grant for \$2 million intended to rebuild parks in distressed urban neighborhoods. In 2013, Pogo Park acquired a second park a few blocks away, called Harbour-8, and they began dreaming about how to connect Elm Play with the new space. By 2018, a community design process combined a new vision for the Harbour-8 Park was and a way to connect it to Elm Playlot through a project they called the Yellow Brick Road (YBR). The YBR drafting process included research performed by 30 community members, who were trained to walk every street in the neighborhood and document every physical barrier to mobility, from the lack of crosswalks, to sidewalks in poor condition, to lack of lighting to areas where drug dealers, prostitutes and stray dogs tended to congregate. The final YBR plan was co-created by residents, youth, engineers and urban planners, and included new new traffic calming, sidewalk improvements, landscaping, and intersection changes to make streets safer for pedestrians and bicyclists. Pogo Park and the City partnered again and submitted the YBR design to the State of California, Transportation Department, requesting the resources to implement the project. The partnership was successful and \$6.2 million grant launched the traffic calming and street-scape improvement project (Figure 8).

Due to the successes of Pogo Park, including their on-going partnership with local government, the city agreed to purchase the land adjacent to Harbour-8 to allow the park to expand and include a community center building, more public restrooms, new play areas, and stalls for small businesses. Pogo Park applied



Figure 7. Residents building Elm Playlot.

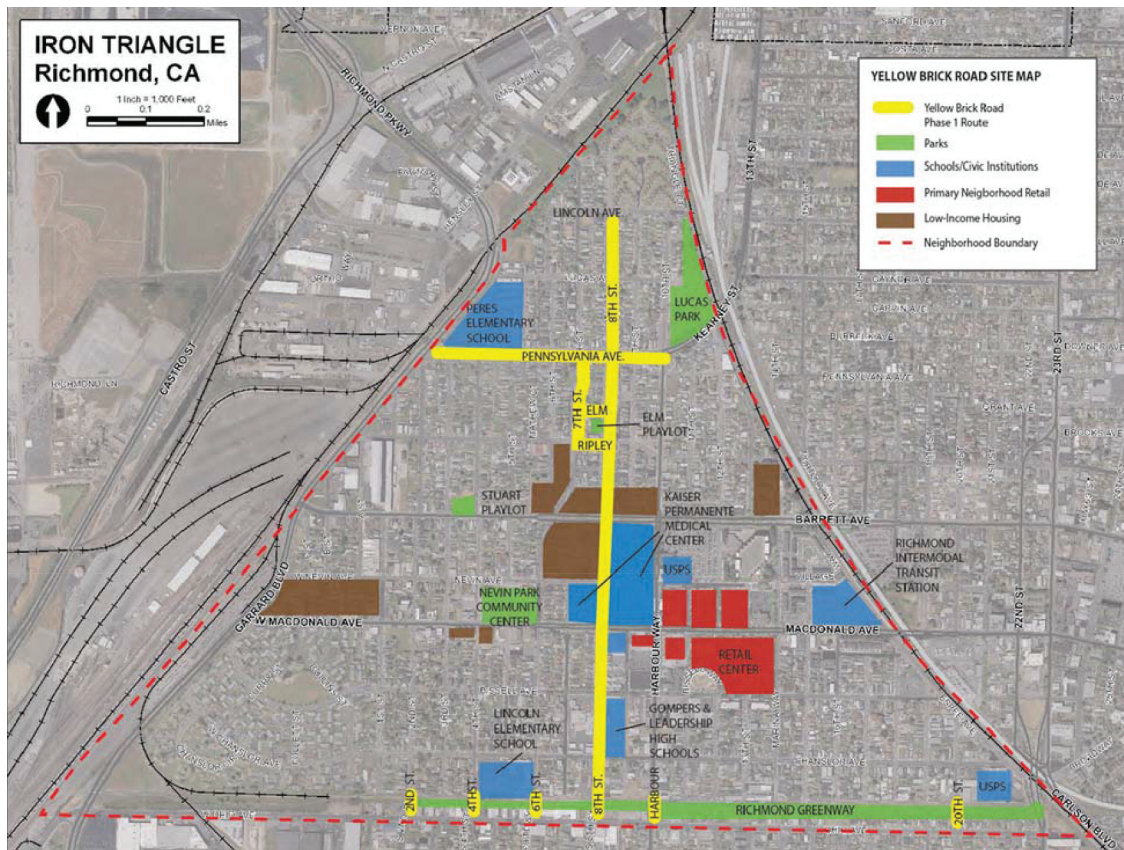


Figure 8. Yellow Brick Road project in the Iron Triangle, Richmond, California (Source: Pogo Park).

for additional resources for Harbour-8 from the State of California Department of Parks and Recreation and received \$8.5 million under a grant program called Proposition 68, which expanded the State's Sustainable Communities and Climate Change Reduction program (Aldax 2020). As Maher described it: 'The next phase of our work is about continuing our commitment to sustainable and healthy community development. This means having residents build the most beautiful spaces in their own neighborhood, and ensure they benefit socially, economically, and health-wise'. The co-construction of Elm Playlot and the beginning of Harbour 8 Park created tens of new permanent jobs for local residents and Pogo Park has employed about 120 residents for some period of time between 2009 and 2019. The full-time staff consists of about ten people who make over \$20/hour with full health and other benefits. According to Maher, Pogo Park had paid-out over \$1.5 million in wages and small contracts all to community residents during this time.

Community research results: supporting health & healing

In addition to the beautiful and highly functional new public spaces, jobs and related economic benefits from Pogo Park, the survey research suggests that Pogo Park may be contributing to improving local health and supporting healing. The 2009 household survey reached

a total of 198 households, 58% of which were around Elm Playlot, and the others around Virginia Playlot. The 2019 survey managed to return to 145 of the 198, 2009 households, 65% of which were within the Iron Triangle and 35% were outside the neighborhood within the Virginia Playlot catchment area. Survey results are summarized in Table 1. For 2019 survey respondents within the Iron Triangle there was a significant increase in respondents reporting positive social connections, associations, and trust of their neighbors, compared to 2009. The survey also found that people felt safer and there was less crime in the area.

Results from the Richmond Community Survey also suggest significant improvements in the conditions that support health and healing for Iron Triangle residents. The 2019 survey revealed that respondents from the Iron Triangle reported that crime had decreased, the neighborhood felt safer (Table 2), and that the overall quality of life as well as the rating of their neighborhood as a place to live and recreate had also significantly improved since 2009 (Table 3). While self-rated health was not included as a question in the 2009 RCS, it was in 2019 and 59% of Iron Triangle residents rated their health as either good or excellent. According to the UC Centers for Disease Control and Prevention, life expectancy in the census tracts of the Iron Triangle had increased from 79 years in 2000, to 77.9 in 2013 to 79.2 in 2019 (CDC 2022). Gun homicides and shootings decreased by over 50% in Richmond from 2009, and

Table 1. Community Survey in Richmond, California results from 2009 and 2019.

Survey Question	% responding strongly agree or agree inside Iron Triangle			% responding strongly agree or agree outside Iron Triangle		
	2009	2019	% Change 2009 to 2019	2009	2019	% Change 2009 to 2019
The friendships and associations I have with other people in my neighborhood mean a lot to me.	64	94	+46.8%*	73	88	+20.5%**
If I need advice about something, I could go to someone in my neighborhood.	62	88	+41.9%*	75	84	+12%
I borrow things and exchange favors with my neighbors.	29.5	60	+103.3%*	49	61	+24.4%**

* $p < 0.001$, ** $p < 0.01$.**Table 2.** Richmond Community Survey: within and outside the Iron Triangle neighborhood.

Survey question	Percent responding 'Yes'					
	2009 inside	2019 inside	% Change inside 2009-19	2009 outside	2019 outside	% Change outside 2009-19
There is a lot of crime in my neighborhood?	76	55	-27.6%*	57	47	-17.5%
Crime makes it unsafe to go outside?	53	34	-35.8%*	36	49	+36.1*
It is safe for children to play outside together?	19	26	+36.8*	23	24	+4.3

* $p < 0.001$.**Table 3.** Richmond Community Survey, Iron Triangle respondents.

Survey Questions	% Responding 'good' or 'excellent'		
	2009	2019	% Change (2009 to 2019)
Ratings of the following ...			
The overall quality of life in Richmond?	18%	24%	+33.3%**
The image and reputation of Richmond?	7%	13%	+83.2%*
My neighborhood as a place to live?	17%	35%	+103.8%*
The quality of recreational opportunities?	23	39	+69.5%**

* $p < 0.001$, ** $p < 0.01$.

according to the Richmond Police Department, there were 40 firearm homicides and 186 shootings with an injury in 2009 and 15 firearm homicides and 37 shootings in 2019 (8 of which were in the Iron Triangle) (Matthay *et al.* 2019).

We offer two examples of youth pictures and the accompanying narrative from the 2019 Photovoice project, to highlight how some young people are perceiving their place (Figure 9).

The research findings offered here suggest that Pogo Park is helping residents to improve their health and heal from the adverse health impacts of social stressors. For example, the neighborly friendships reported by Iron Triangle residents can modify the adverse health impacts from experiences with racism, discrimination, and poverty (Neergheen *et al.* 2019). Enhancement in social cohesion and connections can do this by lowering the levels of C-reactive protein (CRP), and high levels of CRP in your blood are associated with increased risk of heart attack and stroke. The types of positive social connections reported by Iron Triangle residents have also been associated with lowering levels of interleukin-6 (IL-6), which is often generated by stress, and too much IL-6 contributes to internal inflammation, a weakening of the autoimmune response, decreased levels of zinc and iron, and greater susceptibility to viral

infections, including influenza, hepatitis C and HIV (Velazquez-Salinas *et al.* 2019). Knowing, trusting and being willing to ask your neighbor for help has been associated with moderating blood pressure, improving cognitive development, improving sleep and limiting the accumulation of visceral fat – the type of fat that surrounds your internal organs and raises your risk of heart disease, type 2 diabetes, and stroke (Kim *et al.* 2013, Gebreab *et al.* 2017, Robinette *et al.* 2020).

Beyond the numbers: reflections on Pogo Park's impacts

As Maher reflected about the keys to the success of Pogo Park, she emphasized: 'It's the people. Not just in design but in the everyday staffing of the parks. What makes it safe and welcoming is the people, more than the design. It is also custom made by residents for residents. Its one-of-a-kind and not from a catalogue. We have all kinds of play spaces and stimulating environments, not just a slide or swings. So, it has to reflect the soul of the local community and be constantly made and remade by them'.

Former Richmond Chief of Police, Chris Magnus, stated: 'As Pogo Park staff worked on the redesign and renovation of the park, the character of the neighborhood



In this picture, I see the apartments that are being built nearby the park. This apartments are meant for low income families. This apartments wouldn't come here if the park didn't improve the area. Now more and more development is coming, and I see new stores and people want to stay here. Before, all we talked about was leaving this place.



In this picture, I see a picture of the creek in the park. It symbolizes peacefulness and it shows that there is a place in the community just to sit down, chill, and take a breath. This is important to me because everyone needs a space to just sit and think or to relax in peacefulness, even if its not being used it's good to know its there. This is like this because the Pogo Park team was thinking of others that might be stressed or would just need a spot to relax. If I was in charge, I would make more spaces like this for people to relax in with more shade.

Figure 9. Youth Photovoice results from 2019.

changed significantly. The presence of responsible adults at the park made local parents feel comfortable in bringing their children to the park to play and exercise. Pogo Park staff maintained regular communication with the Richmond Police so that residents could report suspicious activity to park workers, knowing the police would be informed. As a result, the reduction in incidents of violent crime, drug dealing, and vandalism in the immediate neighborhood of Elm Playlot has been dramatic' (Pogo Park 2022).

The former City Manager of Richmond, Bill Lindsey, reflected: 'We had no idea that the transformation of that little park in the Iron Triangle could lead to such a big change there and across the city. We had more parents from there coming to meetings, more people

demanding policy changes. Young people from there went on to be leaders. People from around the region, even the country, come to see Pogo Park now, because the transformation of the place and people has been nothing short of remarkable'.

James Anderson, the resident and leader of the Pogo Park construction team, reflected on the transformation of his community: 'I wouldn't be here right now if not for this place [Elm Playlot]. I mean, it has changed my life. I got new skills, a steady job and I even got to go to Africa. This place here, we are all better because of what has happened to this park. Fewer people killin' each other, less crazy stuff goin' on; it's just more peaceful, you know what I mean? This place has helped out a whole lot of people around here' (Figure 10).



Figure 10. Pogo Park in 2022 (Source: Authors).

Conclusions

This case study suggests that certain features of urban park re-development may contribute to associated population health and healing. First, community control over the design, construction and programming was fundamental to the Pogo Park-led transformation. Second, residents must benefit economically (i.e. through paid work) and professionally (i.e. learning new skills). Third, the community group gained operating control of the land, but the city retained the liability. This created a new, close partnership between the NGO Pogo Park and the City of Richmond. This is a fourth feature, namely that NGOs cannot be expected to transform a neighborhood like the Iron Triangle on their own; the city's partnership helped with governance issues and to raise capital to complete infrastructure projects. Fifth, the multi-uses of the urban space seems to be contributing to healing, from the kitchen and gardens, to safe toilets and playgrounds. Sixth, the park's features and daily programming serves the local culture and different age groups, from toddlers to retirees. Finally, on-going action-research, using mixed methods, from the photovoice to survey data, allowed different constituencies to share their perspectives on how the changing space was impacting their well-being. While Pogo Park is a work-in-progress and its transformation still on-going, this case suggests there may be lesson for other cities and communities around the world interested in transforming urban green space into a healing place.

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References

- Aldax, M., 2020. \$12.7M in state grants to significantly enhance two Richmond parks. *Richmond Standard*. Available from: <https://richmondstandard.com/richmond/2020/02/26/12-7m-in-state-grants-to-significantly-enhance-two-richmond-parks/>
- Bell, S.L., Hickman, C., and Houghton, F., 2023. From therapeutic landscape to therapeutic 'sensescape' experiences with nature? A scoping review, *Wellbeing. Space and society*, 4, 100126. doi:10.1016/j.wss.2022.100126.
- Berman, M.G., Kross, E., Krpan, K.M., et al., 2012. Interacting with nature improves cognition and affect for individuals with depression. *Journal of affective disorders*, 140 (3), 300–305. doi:10.1016/j.jad.2012.03.012.
- Borunda, A., 2020. How 'nature deprived' neighborhoods impact the health of people of color. Available from: <https://www.nationalgeographic.com/science/article/how-naturedeprivedneighborhoodsimpacthealth-people-of-color>
- Centers for Disease Control & Prevention (CDC), 2022. *Places: local data for better health*. Available from: <https://www.cdc.gov/places/index.html>
- City of Richmond, CA, 2022. Community survey. Available from: <https://www.ci.richmond.ca.us/1872/2009-Community-Survey>
- Contra Costa Health Services (CCHS), 2014. *Richmond health equity report card*. Available from: <https://cchealth.org/health-data/pdf/Richmond-Health-Equity-Report-Card-Full.pdf>
- Dzhambov, A.M., et al., 2020. Analytical approaches to testing pathways linking greenspace to health: a scoping review of the empirical literature. *Environmental research*, 186, 109613. doi:10.1016/j.envres.2020.109613.
- Faber Taylor, A. and Kuo, F.E., 2009. Children with attention deficits concentrate better after walk in the park. *Journal of attention disorders*, 12 (5), 402–409. doi:10.1177/1087054708323000.
- García-Lamarca, M., Anguelovski, I., and Venner, K., 2022. Challenging the financial capture of urban greening. *Nature communications*, 13 (1), 7132. doi:10.1038/s41467-022-34942-x.
- Gebreab, S.Y., et al., 2017. Neighborhood social and physical environments and type 2 diabetes mellitus in African Americans: the Jackson heart study. *Health and place*, 43, 128–137. doi:10.1016/j.healthplace.2016.12.001.
- Gieryn, T.F., 2000. A space for place in sociology. *Annual review of sociology*, 26 (1), 463–496. doi:10.1146/annurev.soc.26.1.463.
- Huang, W. and Lin, G., 2023. The relationship between urban green space and social health of individuals: a scoping review. *Urban forestry & urban greening*, 85, 127969. doi:10.1016/j.ufug.2023.127969.
- IUCN, 2019. A space for healing: overcoming environmental diseases in national parks. Available from: <https://www.iucn.org/news/asia/201906/a-space-healing-overcoming-environmental-diseases-national-parks>
- Jay, J., et al., 2022. Neighborhood segregation, tree cover and firearm violence in 6 U.S. cities, 2015–2020. *Preventive medicine*, 165, Part A, 107256. doi:10.1016/j.ypmed.2022.107256.
- Jelks, N.O., Jennings, V., and Rigolon, A., 2021. Green gentrification and health: a scoping review. *International journal of environmental research and public health*, 18 (3), 907. doi:10.3390/ijerph18030907.

- Kaplan, R., 1993. The role of nature in the context of the workplace. *Landscape and urban planning*, 26 (1), 193–201. doi:10.1016/0169-2046(93)90016-7.
- Kim, E.S., Park, N., and Petersen, C., 2013. Perceived neighborhood social cohesion and stroke. *Social science and medicine*, 97, 49–55. doi:10.1016/j.socscimed.2013.08.001
- Kobayashi, H., et al., 2018. Forest walking affects autonomic nervous activity: a population-based study. *Frontiers in public health*, 6. doi:10.3389/fpubh.2018.00278.
- Locke, D.H., Hall, B., Grove, J.M., et al., 2021. Residential housing segregation and urban tree canopy in 37 US cities. *npj urban sustainability*, 1 (1), 15. doi:10.1038/s42949-021-00022-0.
- Maas, J., et al., 2009. Social contacts as a possible mechanism behind the relation between green space and health. *Health & place*, 15 (2), 586–595. doi:10.1016/j.healthplace.2008.09.006.
- Matthay, E.C., Farkas, K., Rudolph, K.E., et al., 2019. Firearm and nonfirearm violence after Operation Peacemaker Fellowship in Richmond, California, 1996–2016. *American Journal of Public Health*, 109 (11), 1605–1611. doi:10.2105/AJPH.2019.305288.
- Nardone, A., et al., 2021. Redlines and greenspace: the relationship between historical redlining and 2010 greenspace across the United States. *Environmental health perspectives*, 129 (1), 017006. doi:10.1289/EHP7495.
- Neerghen, V.L., et al., 2019. Neighborhood social cohesion is associated with lower levels of Interleukin-6 in African American women. *Brain, behavior and immunity*, 76, 28–36. doi: 10.1016/j.bbi.2018.10.008.
- Nejade, R.M., Grace, D., and Bowman, L.R., 2022. What is the impact of nature on human health? A scoping review of the literature. *Journal of global health*, 12, 04099. doi:10.7189/jogh.12.04099.
- Pogo Park, 2022. *Annual report 2014*. Available from: <https://pogopark.org/wp-content/uploads/2018/07/Annual-Report-2014.pdf>
- Ramkissoon, H., Mavondo, F., and Uysal, M., 2018. Social involvement and park citizenship as moderators for quality-of-life in a national park. *Journal of sustainable tourism*, 26 (3), 341–361. doi:10.1080/09669582.2017.1354866.
- Razani, N., Morshed, S., et al., 2018. Effect of park prescriptions with and without group visits to parks on stress reduction in low-income parents: SHINE randomized trial. *PLOS ONE*, 13 (2), e0192921. doi:10.1371/journal.pone.0192921.
- Robinette, J.W., et al., 2020. Perceived neighborhood social cohesion and cardiometabolic risk: a gene × environment study. *Biodemography and social biology*, 65 (1), 1–15. doi:10.1080/19485565.2019.1568672.
- Robinson, J. and Breed, M., 2019. Green prescriptions and their co-benefits: integrative strategies for public and environmental health. *Challenges*, 10 (1), 9. doi:10.3390/challe10010009.
- South, E.C., Hohl, B.C., Kondo, M.C., et al., 2018. Effect of greening vacant land on mental health of community-dwelling adults: a cluster randomized trial. *JAMA network open*, 1 (3), e180298. doi:10.1001/jamanetworkopen.2018.0298.
- Velazquez-Salinas, L., et al., 10 May 2019. The role of Interleukin 6 during viral infections. *Frontiers in microbiology*, 10. doi:10.3389/fmicb.2019.01057.
- Wang, C. and Burris, M.A., 1997. Photovoice: concept, methodology, and use for participatory needs assessment. *Health education & behavior*, 24 (3), 369–387. doi:10.1177/109019819702400309.
- WHO, 2017. *Urban green space interventions and health: a review of impacts and effectiveness*. WHO Regional Office for Europe. Available from: <https://www.cbd.int/health/who-euro-green-spaces-urbanhealth.pdf>
- Wilson, E.O., 1986. *Biophilia*. Cambridge, MA: Harvard University Press.
- Zhang, Y., et al., 2022. Green place rather than green space as a health determinant: a 20-year scoping review. *Environmental research*, 214, 113812. doi:10.1016/j.envres.2022.113812.