

Cover the Grid

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COVER THE GRID

Cover the Grid is an installation employing temporary marking paint on a timeworn but treasured community lot in North Lawndale, a neighborhood on Chicago's West Side. Fabricated as part of the 2021 Chicago Architecture Biennial the ephemeral landscape mural leverages cutting-edge tools, low-impact methods, and community engagement to reorganize and enhance a public space with modest resources and a low ecological footprint.

The installation is not a final park design but rather a prototype, a temporary graphic testbed for experimentation as the neighborhood considers the long-term future of its park. The installation provides an important transitional landscape as community fund-raising efforts continue to repair the existing basketball court and acquire other permanent infrastructure. Installed with GPS-guided robots and temporary marking paint, Cover the Grid suggests a new model of rapid spatial prototyping that invites community-based debate and engagement into the design process with the help of embodied representations at a 1:1 scale.

The project's site, Bell Park, is an existing community lot situated at a critical crossroads of civic connections at the scale of the block, neighborhood, and city (Fig. 9). Physical links include an informal but popular pedestrian corridor (block), iconic Ogden Avenue (neighborhood), and the elevated Pink Line rail (city). The design process focused on how the park might be reorganized to maximize interaction between these key civic connectors and provide assets for their diverse constituencies.

The conceptual design phase included community outreach and collaborative workshops with students from a high school design camp. Students were introduced to the principals of robotic painting and suggested patterns, colors and program elements to be included in the final composition. Planning began in earnest in the spring of 2021. The design was finalized in late summer when the robot was programmed with the final pattern and semi-autonomously installed in one week. The project utilized a robot designed to install sports fields,

to mark the pattern on the asphalt lot. The temporary sports marking paint is water-soluble, non-toxic, and VOC-free. On soft scapes, the paint lasts about three weeks. Hard scapes like Bell Park will remain bright and colorful for months, eventually fading with sun and rain. The low-impact installation method meant the park was never closed during installation, with local children often testing patterns only a few hours after they were painted.

As a prototype, Cover the Grid suggests new possible programming for city-owned infill sites throughout the West Side. On a local level, Cover the Grid has served as a testbed for spatial experimentation not by designers, but by residents. The colorful modular design has been retrofitted with an outdoor furniture system that adapts to events including basketball tournaments, music concerts, and spoken word performances. Lessons learned from this experimentation will inform future park planning. The building-scale notations are certainly reminiscent of Supergraphics work from figures like Mary Ann Rummey, Barbara Stauffacher Solomon, Charles Moore, and Denise Scott Brown and Robert Venturi, but in this case, the robotic graphics of Cover the Grid operate less as legible signage and more as intense chromatic fields. This shift is emphasized by comparing the vantage from the nearly elevated train (Fig. 1), where the graphic legibility is more pronounced, and images on the ground, where children play in immersive colorfields (Fig. 7).

Looking beyond the immediate project, Cover the Grid suggests a novel model of spatial prototyping that should be considered for larger, more permanent projects. The use of in situ 1:1 representations provides possibilities for engagement and self-actualization for the community that abstract drawing and categorical renderings often fail to provide. This unique process allows experts and so-called "non-experts" to interact on a more level playing field. The radical act of scaling a drawing to 1:1 removes typical barriers of entry for users. At a 1:1 scale, users of all backgrounds and expertise can meaningfully contribute and participate in an architectural drawing. In the case of Cover the Grid, graphic alterations were made based on comments from passersby during the installation. If we shift our focus to advanced tools in architecture from the realm of the lab and into the larger world, how might rapid spatial

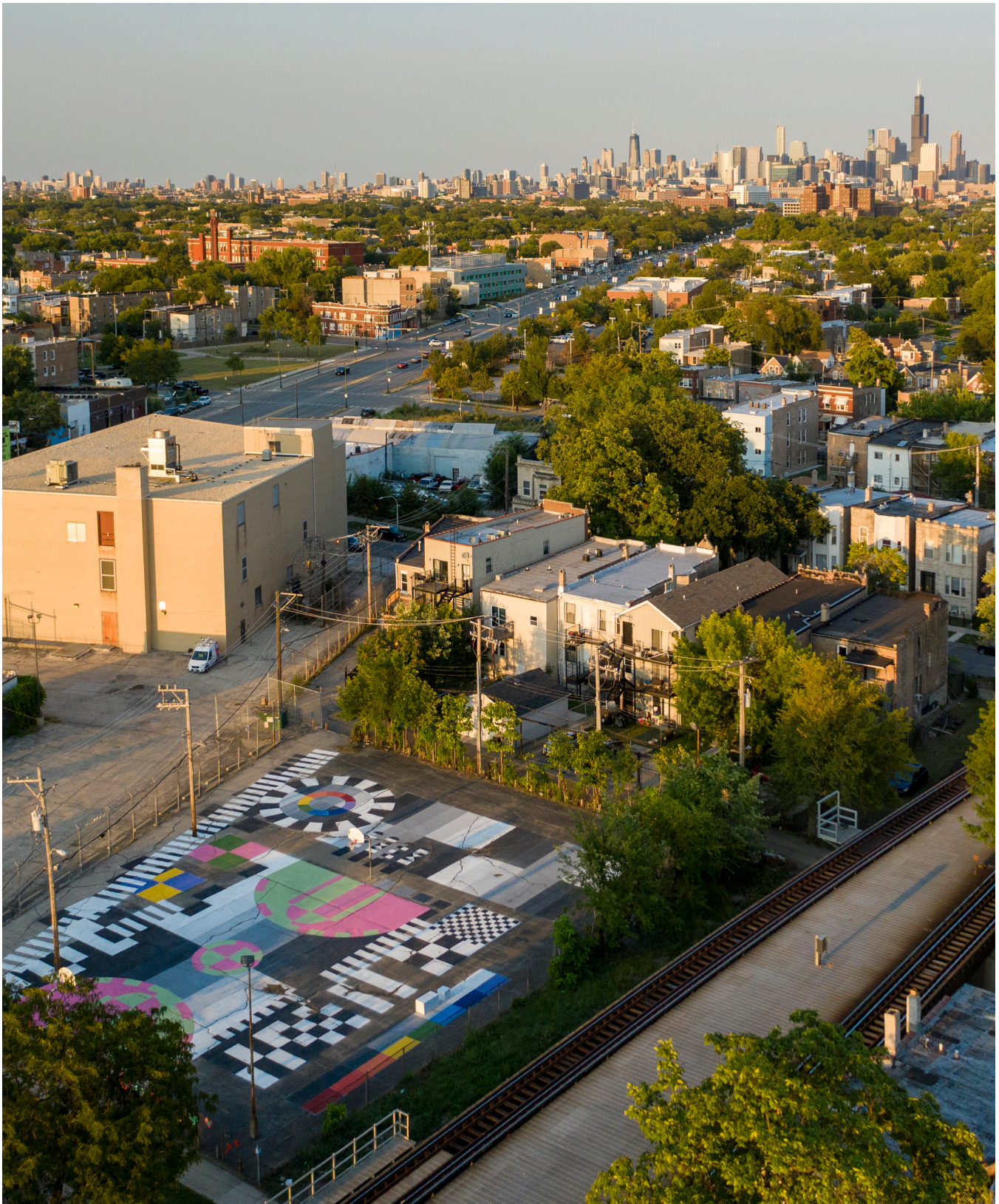


Figure 1. View of Cover the Grid with the Chicago skyline beyond. Image by authors.

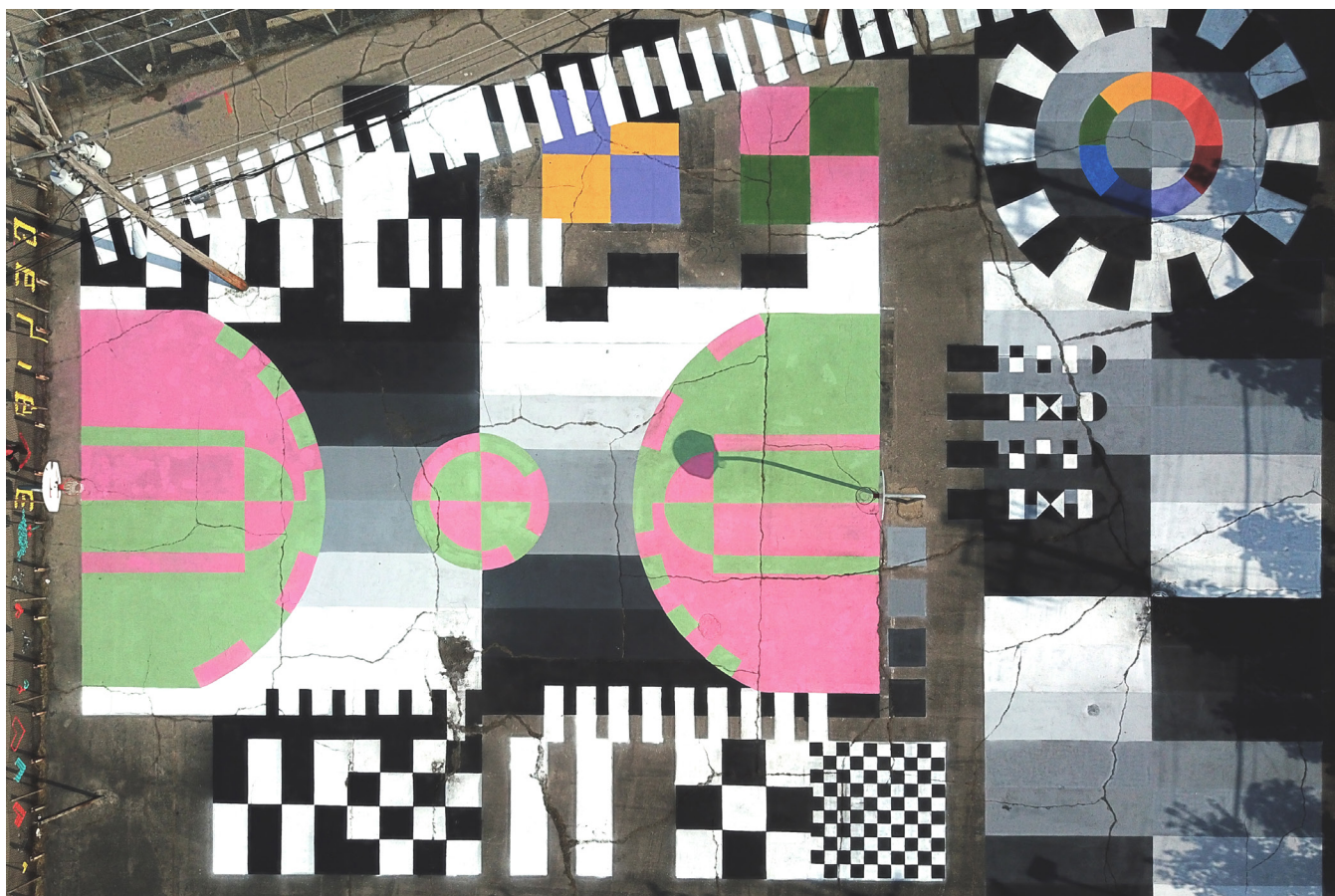


Figure 2. Final mural pattern. Image by authors.



Figure 3. View of painting robot installing the pattern. Image by authors.

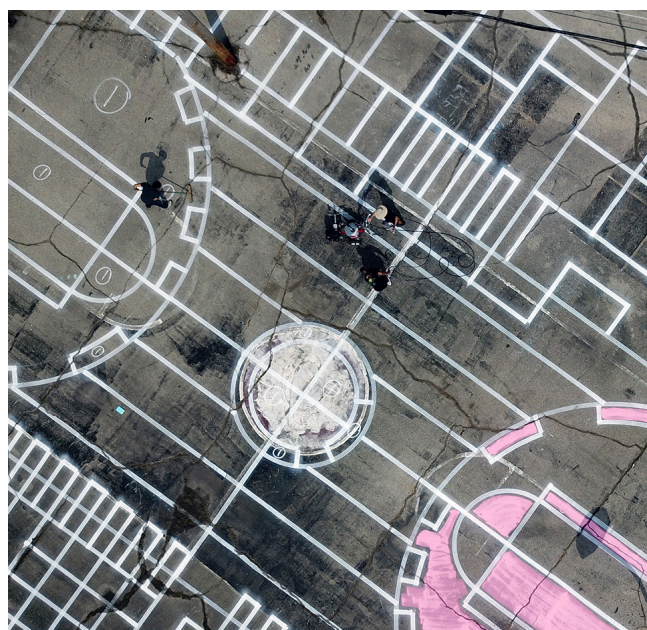


Figure 4. Installation in progress. Image by authors.



Figure 5. Overlapping games of basketball and football during a block party. Aleks Eva Photography.



Figure 6. Opening block party. Aleks Eva Photography.



Figure 7. Basketball color field. Aleks Eva Photography.



Figure 8. View along elevated rail. Image by authors.



Figure 9. Site Diagram illustrating confluence of scales occurring at Bell Park. Image by authors.

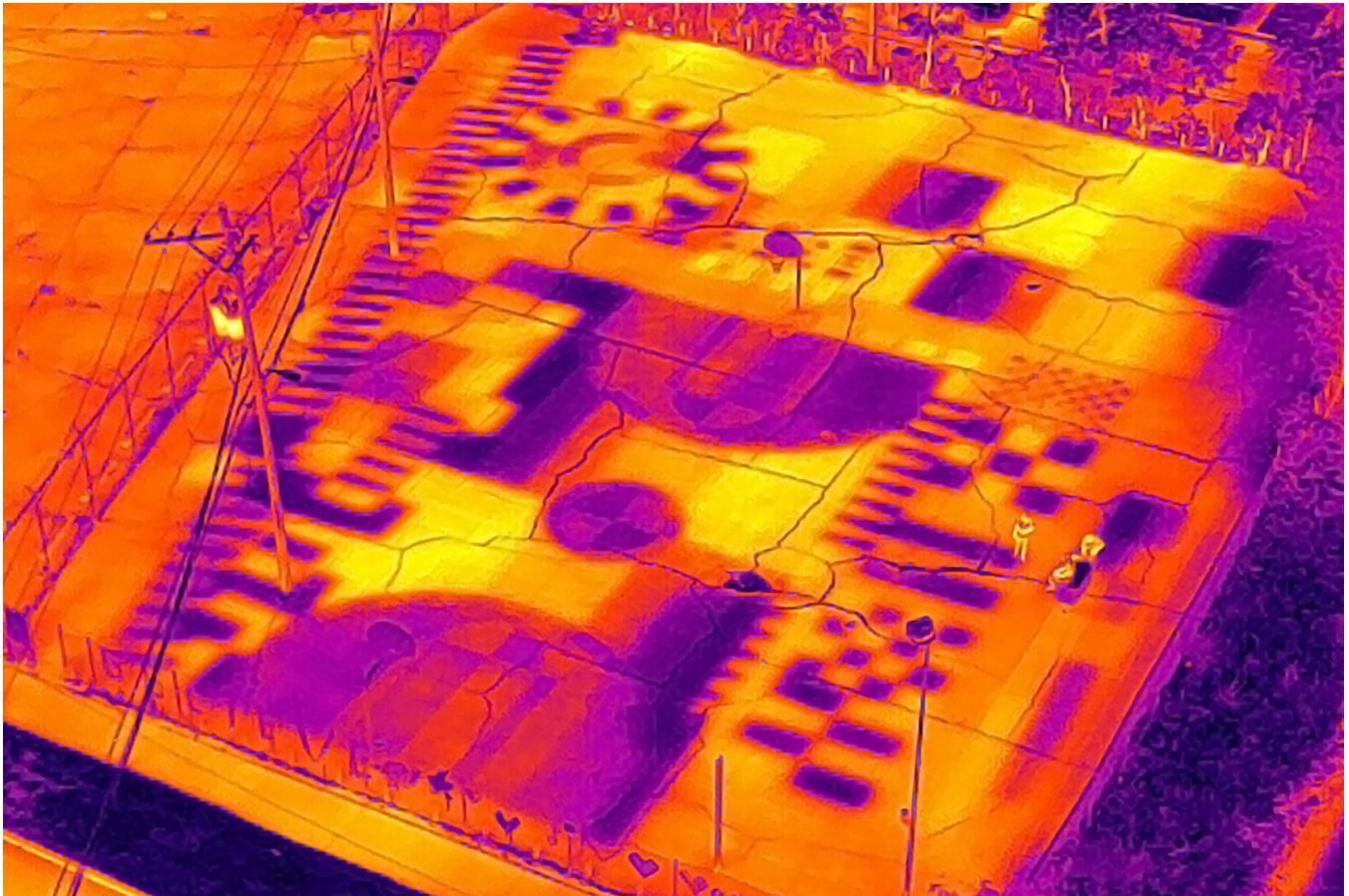


Figure 10. Thermal imaging illustrating temperature shifts created by color choices. Image by authors.

prototyping offer more opportunities for direct engagement in the design process? How might we rethink the notion of “mock-ups” in architecture to better communicate a project’s intentions and possibilities to the community? Moving forward, these questions are at the forefront of our research with robotic painting.

We are grateful to the vision of Biennial director David Brown and to our community partners of North Lawndale that helped us directly engage members of the Bell Park community. After a period of dynamic use by the community, including block parties, basketball tournaments and poetry slams, we were recently approached with a delightful and humbling question: “How do we make some of this permanent?”