Coping and Connecting through Creativity in the Neighborhood Realm during COVID-19

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Abstract
This research addresses how the COVID-19 pandemic affected neighborhood engagement by exploring the use of streets, sidewalks, and driveways as sociable spaces for informal and uncoordinated creative expression. We assessed practices occurring in three diverse City of Phoenix neighborhoods before and during the pandemic through visual analysis. We show that residents used these spaces in novel and more intensive ways during the pandemic, including for self-care and care of others, celebrations, children’s play, and property-spanning games and communication. These findings reveal the importance of these interstitial spaces in helping neighbors to cope and connect during societal disruptions.

Keywords
COVID-19, neighborhoods, creativity, public realm

Introduction
The COVID-19 pandemic upended lives in deep and disparate ways: increasing mortality, hospitalization, unemployment and housing instability, fragmenting families and friends, transforming computers into workplaces and schools, and tethering people more strongly to their homes and neighborhoods. Emerging research explores how these dynamics reshaped people’s mobility and economic engagement (e.g., Conway et al., 2020); less is known about
neighborhood engagement. Our scholarship responds to this gap by exploring the geography, temporality, and functions of one type of pandemic-era neighborhood engagement: the use of transportation infrastructure, such as streets, sidewalks, and driveways, for informal and uncoordinated creative expression, such as chalk drawings and messages.

We use visual analysis to extend theories of the role of the neighborhood realm in residents’ creativity and well-being (Kim 2012; Lofland 2017; Loukaitou-Sideris and Ehrenfeucht 2009; Rannila and Mitchell 2016; Salomon 2017) by focusing on (1) the context of a pandemic, (2) informal and uncoordinated creativity, and (3) undertheorized interstitial neighborhood spaces that connect residents in three diverse communities in the City of Phoenix, Arizona. We discovered that residents expressed their interests, concerns, and values on streets, sidewalks, and driveways to cope with pandemic-induced disruptions, losses, and uncertainty. They adapted social life and school to these spaces by using them as playgrounds and chalkboards. Residents also connected in new ways, such as by inviting neighbors’ well-wishes for a driveway celebration that pre-pandemic would have involved just family and friends. Practices varied across these spaces and waxed and waned as the pandemic progressed, potentially reflecting shifts in their perceived social utility. Overall, these findings reveal how residents creatively socialized in their interstitial neighborhood realm during a pandemic when traditional social spaces were unavailable.

We begin by introducing theories of the neighborhood realm and creativity and positioning our contributions. Then, we present our research approach. We next explore the geography, temporality, and functions of creative practices prior to and during the pandemic across the three neighborhoods. We conclude by synthesizing our contributions and their implications for planning.

**Social Connectedness and Creativity in the Neighborhood Realm**

Neighborhood social structures are typically characterized by community-level, face-to-face interactions (DeFilippis 2001; Foster and Hipp 2011; Putnam 2001; Sampson 2012; Talen 2019), such as would occur in “third places”—congregating spaces between home and work (e.g., cafes, bars, and bookstores; Oldenburg 1999). However, the COVID-19 pandemic abruptly constricted these activities by tethering many households to their homes and requiring masking and virtual modalities for community-level socialization. These changes revealed interstitial spaces that connect private residences as important yet understudied sites for social connectedness (Aulds 2020; Brandon 2020; Gallucci 2020; Kim 2012, 226). Lofland characterizes these spaces as the *parochial realm*, which is neither wholly public, that is, “the world of strangers,” nor private, that is, “the world of the household [and] kin,” but is a sociable space of the “neighborhood, workplace, or acquaintance” (Lofland 2017, 10).

Our research addresses the informal creative functions of three neighborhood sociable spaces—streets, sidewalks, and driveways. These are unique in that they are “open to all and yet a space over which a group feels ownership” (Loukaitou-Sideris and Ehrenfeucht 2009, 6). Their highly visible locations invite passersby to engage passively or actively with their creative practices (e.g., a child’s scribble or a message to “stay strong”) by observing (or, sometimes, contributing to) the dialogue.

**Streets, Sidewalks, and Driveways: The Sociable Neighborhood Realm**

Streets are the most public element of neighborhoods although they are underexamined within residential social or creative landscapes. The limited discourse focuses on structured activities, such as car-free programming, or configurations that may support socialization, such as cul-de-sacs (e.g., Aiyer et al., 2015; Barnes 2021; Hochschild 2013; Mehta 2007; Njeru 2020; Zieff, Chaudhuri, and Musselman 2016). Mehta’s research reveals how street distinctiveness, permeability, and amenities affect the social qualities of “main street” style mixed-use and commercial districts (Mehta 2007, 2013, 2019; Mehta and Bosson 2010). Barnes (2021) shows how a local arts initiative adapted London neighborhood streets into stages for music and art during the pandemic.

Neighborhood sidewalks conjure images of children’s creativity and play. Yet research examining their social and creative purposes also is limited (e.g., Braus and Morton 2020; Mehta 2020; Rannila and Mitchell 2016; Shoup 2010). Evidence mostly comes from downtown districts and heavily pedestrian-oriented zones, where scholars have considered sidewalks’ utilitarian, economic, and social purposes (e.g., Ehrenfeucht and Loukaitou-Sideris 2010; Jamme 2020; Kim 2012; Loukaitou-Sideris and Ehrenfeucht 2009). In residential areas, the intersection of public sidewalks with adjacent private property forms a “moral geography,” revealing normative value or intent. For example, Rannila and Mitchell...
Creativity in the Neighborhood Realm

Creativity in the neighborhood realm relies on varied materials and processes, from preplanned and coordinated activities to spontaneous expression, which have different purposes, degrees of coordination, and outcomes. For example, an individual might impulsively spray-paint a wall; nearby residents may call for the removal of this “illicit graffiti,” while bestowing critical acclaim on a commissioned, spray-painted mural nearby. Similarly, a sidewalk with spontaneous children’s chalk drawings will engage its surroundings (and passersby) differently than a sidewalk-based art installation to memorialize a historic event (e.g., Stevens and Ristic 2015).

Planning scholarship on coordinated and formalized neighborhood creativity, including creative placemaking and tactical urbanism, is mature. These frameworks distinguish creative expression by its process, purpose, and function more than its materials. Uncoordinated, spontaneous, and informal neighborhood creativity is less studied, centering on graffiti, sidewalk chalking, and public memorialization. We consider the essential elements of the former as a foundation for engaging with current dialogues around the informal practices that guide our study.

Creative placemaking uses arts as a means of community transformation, engaging professional artists and community development organizations (Markusen and Gadwa 2010; National Endowment for the Arts n.d.). As facilitators and translators, professional artists discover and express neighborhood values related to vitality, resiliency, identity, and health (Rosario Jackson 2018; Zitcer 2020). Their creative scale is often the block or neighborhood, including passive (e.g., mural) or functional (e.g., bus shelter sculpture) practices (Bela et al., 2017; Zitcer 2020).

Tactical urbanism seeks place-based transformation through different methods, relationships, and scales. Artists and community stakeholders make temporary changes to underused spaces to highlight concerns and opportunities for permanent solutions (Lydon, Garcia, and Duany 2015; Steuteville 2014). Practices are typically preplanned and low-cost. A globally known practice is PARK(ing) Day, where organizations creatively spotlight local needs (e.g., more parks, better bike parking) by converting an on-street parking space into something else (Thorpe 2020; Merker 2010). More informal instances of tactical urbanism include children creating temporary basketball courts on their block or apartment dwellers covertly gardening on a vacant lot (Kamel 2014).

Accounts of graffiti, sidewalk chalking, and public memorialization offer insight into uncoordinated, informal neighborhood creativity. Graffiti is a contested practice, seen as a masterpiece, act of resistance, or threat depending on the setting, message, viewer, and artist (Evans 2016; Shobe and Banis 2014; Zukin and Braslow 2011). It occurs in various contexts, including public or private property with (or without) permissions, and is often a public-facing dialogue (Ehrenfeucht 2014) despite its treatment as an illegal nuisance or vandalism (Mcauliffe 2012; Shobe and Banis 2014; Evans 2016). Ehrenfeucht’s (2014) research demonstrates these tensions in the context of post-Katrina and Rita New Orleans. Street artists used graffiti to symbolize and rally community, whereas anti-graffiti advocates sought to delegitimize and remove these expressions.

Sidewalk chalking is distinguished from graffiti in the public imagination, although localities may also regulate it, depending on its location, content, and perceived intent (Center for Art Law 2013; Harkinson 2012; Mock 2015). For instance, a man was charged with thirteen counts of vandalism for chalking anti-big-bank messages in front of a bank; meanwhile, a woman was sentenced to fifty hours of community service for permitting her four-year-old to chalk rocks at a local park (Center for Art Law 2013; Harkinson 2012). The 2020 Black Lives Matter (BLM) movement heightened chalk-based contestations, as public agencies pressure-washed supportive messages and threatened to fine their authors (e.g., Baker 2020; Pineda 2020).

Finally, public memorialization engages with creativity to cope with loss and remember. Practices range from permanent or semipermanent art installations to impromptu roadside memorials, sidewalk shrines, rest in peace (RIP) murals, and ghost bikes (Sloane 2018; Stevens and Ristic 2015). They illustrate how neighborhood creativity can carve out a therapeutic space for collective conversation and action, qualities also potentially evident in people’s sidewalk chalking, mask-making, and baking during the pandemic (Braus and Morton 2020; Sloane 2018).

Theoretical Contribution

Our research extends knowledge on neighborhood creativity by focusing on undertheorized informal and uncoordinated practices, defined as imagistic or verbal expression that is not directed (e.g., by a leader or organization). We examine how these practices manifest and evolve in three understudied interstitial spaces—streets, sidewalks, and driveways—over a pandemic relative to the period before. Our
aim is to explore how these practices transform these spaces into a sociable neighborhood realm, which can inform its regulation.

**Documenting Informal and Uncoordinated Neighborhood Creativity during a Pandemic**

Scholarly and practical concerns shaped our research approach, given the pandemic context. We sought to describe, rather than explain, creative practices, enabling us to collect observational, socially distanced data. Our questions are as follows: What kinds of creative practices occurred on neighborhood streets, sidewalks, and driveways prior to and during the pandemic (before March 2020 and from March 2020 to May 2021)? How do the extent and functions of these practices compare among these locations and periods?

We studied practices in the City of Phoenix, which had three traits desirable for data collection: (1) car-dependent, single-family home subdivisions; (2) a temperate climate from October through April; and (3) low precipitation rates. Single-family neighborhoods are ideal settings because they (1) are the dominant housing type in the region, (2) contain ample driveways, and (3) are easier to access than multifamily housing in the region, which often is in large, gated complexes. Phoenix had low case counts and hospitalization rates at the onset of the pandemic, although residents still experienced stay-at-home orders, school and business closures, and social distancing directives (Singla, Mughan, and Howell 2021). State-imposed restrictions expired in summer 2020. Sharp increases in infection and hospitalization rates followed. The City of Phoenix and its school districts responded with more restrictions, including school and business closures and mask mandates, which took effect following the retraction of state-preemption on these activities. These conditions tethered many households to their homes and neighborhoods from March 2020 to May 2021, dramatically reshaping the city’s social life.

We examined practices in three non-gated, largely single-family home neighborhoods that were near our residences, enabling us to comply with local stay-at-home orders (see Table 1). We use descriptive pseudonyms for the neighborhoods, El Centro, Heritage Place, and Mountain Abodes, to respect the privacy of residents who publicly expressed their feelings during a crisis and did not expect to be photographed. El Centro and Heritage Place are mostly residential, historic, and urban communities located near downtown Phoenix. They have a relatively high proportion of vacant homes and some multifamily and clustered mixed uses (e.g., restaurants, cafes, and small-scale retail). Mountain Abodes is an almost entirely residential, newer, suburban community adjacent to a fifteen-mile long Sonoran Desert mountain preserve with relatively few vacant homes. Single-family detached homes abound in Heritage Place and Mountain Abodes; these communities also are more affluent, owner-occupied, and white. El Centro is historically Latinx and weathering gentrification pressures (Ehlenz et al., 2020). El Centro and Heritage Place also include more essential workers (14% and 15%, respectively, vs. 5% in Mountain Abodes), suggesting fewer residents remained at home during lockdowns (U.S. Census Bureau 2018). We treat these communities’ conditions as background, rather than subject, in this

| Study Site Characteristics. | Heritage Place | El Centro | Mountain Abodes | City of Phoenix |
|----------------------------|----------------|-----------|-----------------|-----------------|
| Geography                  |                |           |                 |                 |
| Demographics               |                |           |                 |                 |
| Population                 | 2,725          | 4,934     | 3,356           | 1,610,071       |
| Median household income    | $112,991       | $30,238   | $96,781         | $54,765         |
| Hispanic or Latinx (%)     | 20             | 76        | 18              | 43              |
| Not Hispanic or Latinx (%) |                |           |                 |                 |
| White                      | 69             | 13        | 75              | 43              |
| Black                      | 4              | 5         | 1               | 7               |
| Asian                      | 5              | 0         | 4               | 4               |
| Households with children < age 18 (%) | 14 | 30 | 19 | 36 |
| Housing market             |                |           |                 |                 |
| Housing units              | 1,531          | 1,798     | 1,541           | 614,870         |
| Single-family detached (%) | 70             | 58        | 78              | 67              |
| Vacant (%)                 | 18             | 18        | 5               | 10              |
| Owner-occupied (%)         | 56             | 22        | 77              | 54              |
| Median home value          | $387,691       | $154,569  | $269,214        | $217,400        |
| Median year structure built| 1946           | 1960      | 1982            | 1982            |
| Land use                   |                |           |                 |                 |
| Residential (%)            | 71             | 55        | 99              | 31              |

*Source: U.S. Census Bureau (2018); Maricopa Association of Governments (2020).*
analysis, focusing on what the range of practices across diverse neighborhoods reveals about informal and uncoordinated creativity in Phoenix.

We conducted fieldwork using photography, which allowed us to collect data in a precise, stable, and unobtrusive way and observe changes over time (Gaber 2020). We documented practices for each block within the neighborhood boundaries over four periods: (1) pre-COVID (prior to March 2020)—using the most recent images from Google Street View, (2) spring 2020 (March to May 2020), (3) winter 2020 (November to December 2020), and (4) spring 2021 (March to May 2021). Our fieldwork coincided with the region’s mildest and driest months, when residents can comfortably be outdoors, and practices are most likely to endure (see Supplemental Figure 3A).

We collected data semi-systematically. Photographs were taken in the same way but at different times within each period and neighborhood. We took photographs in the morning or afternoon over a period of two to four days for all neighborhoods in the final month of each period. We conducted multiple rounds of fieldwork in Mountain Abodes in all periods and in Heritage Place in winter 2020 and spring 2021. We took medium and sometimes close-up shots (to capture the context of the property and the details) of all visible practices on streets, sidewalks, and driveways. We intended to exclude practices that appeared coordinated but found no instances in the interstitial spaces although we observed coordinated activities elsewhere (e.g., white ribbon-laden trees to support health care workers in Heritage Place and blue ribbon-laden utility poles to support police in Mountain Abodes).

We organized the photographs \((n = 1,954)\) into a database that reported the period, location (neighborhood, address, and street, sidewalk, or driveway), and kind of practice (e.g., image or message), along with a verbal description of its details (i.e., its subjects and appearance). We grouped practices of the same kind, property, location, and period into one observation (e.g., three images appearing on a driveway in spring 2020). We removed duplicative practices from Mountain Abodes and Heritage Place.

Next, we undertook a three-stage micro-analysis of the photographs and their descriptions, including “repeated, careful examination of single images and sequences until detailed understanding is achieved” (Collier and Collier 1986, 184). We completed these stages independently but met in between to resolve discrepancies. The first stage was open-ended immersion, which entailed comparing the photographs and their associated data and identifying descriptive categories. The second stage was focused grouping, which involved organizing categories into themes and detailing these in a codebook. The third stage was refinement, which meant recategorizing the characteristics of the practices using the codebook and improving the internal consistency of practices associated with themes. We then answered our research questions by counting, describing, and comparing practices’ explicit and implicit qualities across periods and locations.

**Limitations**

Our approach has numerous limitations. Data collection dates varied by days and weeks during the pandemic and by years pre-pandemic, though most were in the early spring or winter 2019 or early 2020. These differences may introduce bias if practices’ intensities or qualities varied over time. Data from the most acute period of the pandemic (March–April 2020) is of higher quality in Mountain Abodes than Heritage Place or El Centro, as fieldwork was conducted earlier, and accumulated practices documented in May 2020 were at times faded and harder to comprehend.

We were able to resolve many but not all issues relating to the stability of the thematic coding of practices during our refinement stage. Themes pertaining to practices that involved multiple participants and had vaguer functions, like conversations, were less consistently coded than those that had single participants or addressed discrete functions, such as celebrating a holiday. Less stable themes were coded at the location level (street, sidewalk, or driveway), which meant considering the combination of practices of different types (e.g., images and messages), and reported more qualitatively.

Our insight into the who or why of the practices or how they operate across locations to form property or block-level social geographies is limited, given our photographic approach, the socially restrictive pandemic context, and our choice to separately analyze practices on streets, sidewalks, and driveways to advance to knowledge on creativity in these understudied spaces. Finally, our findings mostly inform neighborhood creativity during a pandemic in residential, car-oriented, single-family home neighborhoods in Phoenix; connections with practices happening in other places or periods should be made cautiously. Further research is needed to understand how interstitial creative neighborhood spaces emerge during other kinds of disruptions and in regions with different development patterns and climates.

**Neighborhood Creativity in Three Phoenix Neighborhoods before and during the COVID-19 Pandemic**

People in El Centro, Heritage Place, and Mountain Abodes expressed their creativity on streets, sidewalks, and driveways in unprecedented, emotionally resonant ways during the pandemic. Practices were more common on sidewalks initially and driveways later, especially in Mountain Abodes. They exhibited common subjects, such as declarations of endurance and a range of social purposes, including for self-care and care of others, celebrations, and children’s play. People conversed and collaborated on art and games, sometimes across multiple properties. These findings underscore the coping and connective functions of pandemic-era neighborhood creativity.
The COVID-19 Creativity Surge

Creativity on El Centro, Heritage Place, and Mountain Abodes’ streets, sidewalks, and driveways surged with the onset of the pandemic (see Supplemental Figure 1A). One hundred and seventy-seven homes (3.6%) had creative practices in spring 2020, compared with only eight prior to the pandemic (0.2%). They were more pervasive in Mountain Abodes (141 or 9.1% of homes) than Heritage Place (twenty-nine or 1.9% of homes) or El Centro (seven or 0.4% of homes). Practices waned in winter 2020 and spring 2021, declining to fifty-three (1.1%) and forty-three (0.9%) homes, respectively, although they still surpass pre-pandemic levels. Practices endured longer in Mountain Abodes (thirty-one or 2.0% of homes) by spring 2021 than in Heritage Place or El Centro (seven or 0.5% and five or 0.3% of homes, respectively).

Three-hundred and eighty streets, sidewalks, and driveways, henceforth called “locations,” had practices over the four periods, with all but nine occurring during the pandemic. The distribution and kinds of practices shifted among these locations (see Supplemental Tables 1A and 2A). Practices only occurred on driveways and sidewalks prior to the pandemic; street practices emerged in spring 2020 and were limited to Mountain Abodes. Notably, creativity became more common on driveways and less common on sidewalks from spring 2020 to spring 2021, with the share of locations that were driveways increasing from 39 to 54 percent and sidewalks decreasing from 56 to 38 percent.

Practices fit into four kinds—images, messages, games (involving play), and education (involving learning)—and conveyed wide-ranging and common subjects (see Supplemental Tables 2A and 3A). There were 629 sets of practices, meaning those of the same kind appearing at the same property, location, and period; henceforth these sets are referred to as “practices” or by their specific kind of practice (i.e., images). Pre-pandemic, most practices were images. Messages and games became more common during the pandemic, even as people continued to draw images. Positivity was a common quality of images and messages during the pandemic. Examples include hearts and smiley faces, instructions to “choose kindness” and “be happy,” and declarations of support and solidarity such as “Keep going, You are doing great, This too shall pass.” Games ranged from the traditional, such as hopscotch, to the novel, such as block-spanning obstacle courses. They accounted for a higher share of practices on streets, while images accounted for a higher share of practices on driveways and sidewalks, although the share of sidewalk games more than tripled from winter 2020 to spring 2021. Messages accounted for relatively equal shares of practices across locations in 2020 but for a higher share of practices on driveways in spring 2021. Education, a novel practice mostly focused on preschool skills, such as the ABCs and counting, emerged during spring and winter 2020. This practice was rare, absent from streets, and gone by spring 2021, as schools reopened.

Coping Practices

Streets, sidewalks, and driveways were settings for coping with disruptions in El Centro, Heritage Place, and Mountain Abodes. Residents adapted their adjacent interstitial spaces to anchor them in novel ways to their neighborhoods, including for self-care and care of others, celebrating, and children’s play (see Figures 1 and 2). Here, we explore practices exhibiting these qualities, jointly considering all kinds at a particular location and period.

Driveways and sidewalks became mediums for pandemic-era expressions of intimate emotions and support. We call this function “signs of care.” These practices commonly conveyed hope and compassion by combining images, such as hearts, smiley faces, and rainbows, with advice or affirmations (see Figure 1 and Supplemental Table 3A). They exhibited elements of self-care and care of others. Self-care practices processed emotions related to the pandemic, such as a driveway meditation circle, with a reminder that “Every journey starts with one step.” Care of others practices offered comfort or advice, including “YOU ARE GREAT,” “CON AMOR TODO ES POSIBLE/WITH LOVE ANYTHING IS POSSIBLE,” and the deeply personal “Be Strong Lynda.”

The pandemic also transformed streets, sidewalks, and driveways into spaces for celebrating holidays and milestones and children’s play (see Figure 2 and Supplemental Table 3A). Holidays included religious and secular events, such as Easter, Christmas, Passover, Thanksgiving, Halloween, Earth Day, and Mothers’ Day. Milestones included birthdays, births, graduations, and homecomings. Examples included images of Easter eggs, pumpkins, and balloons and declarations such as “Merry Cristmess!” [sic], “Happy B-Day” or “Welcome Baby Elsie.” Children’s play practices centered on drawing (doodles and fanciful creatures), active play (obstacle courses and mazes), and play-based learning (alphabet or numbers).

Signs of care and celebratory practices were most strongly connected to the pandemic’s early stages, aligning with the most restrictive periods of social distancing (see Table 2). Pre-pandemic, only two (22%) locations had signs of care practices and none had celebratory practices. In contrast, fifty-six and 15 percent of locations had signs of care and celebratory practices, respectively, in spring 2020. Shares of locations with celebratory practices further increased to 23 percent by winter 2020, spanning Halloween and Christmas. Changes in the incidence of hearts, smiley faces, and rainbows also demonstrate this trend: their frequency increased dramatically, from two in the pre-COVID period to 311 in spring 2020 (see Supplemental Figure 2A).

Signs of care practices were similarly prevalent on sidewalks and driveways in spring 2020 (about 60% of each had these practices), while celebratory practices were more common on driveways, particularly in winter 2020 (see Table 2). Driveways endured more than sidewalks as sites for signs of care practices, with close to half still having these by spring 2021 compared with only about one quarter of sidewalks.
Figure 1. Examples of practices with signs of care functions. Source: Authors.

Figure 2. Examples of celebratory and children’s play practices. Source: Authors.
Table 2. Coping and Connective Functions of Practices at Locations by Time Period.

| Functions of practices at locations | All locations | Streets | Sidewalks | Driveways |
|------------------------------------|--------------|---------|-----------|-----------|
|                                    | Pre-COVID    | Winter 2020 | Spring 2021 | Pre-COVID | Winter 2020 | Spring 2021 | Pre-COVID | Winter 2020 | Spring 2021 |
| Coping functions                   |              |           |           |           |              |           |           |              |           |
| Signs of care                      | 2 (22%)      | 140 (56%) | 23 (32%)  | 18 (35%)  | 0 (N/A)     | 0 (0%)     | 2 (22%)  | 0 (0%)     | 2 (25%)    |
| Celebration                         | 0 (0%)       | 37 (15%)  | 16 (23%)  | 4 (8%)    | 0 (N/A)     | 1 (8%)     | 0 (0%)   | 1 (25%)    | 0 (0%)     |
| Children’s play                     | 7 (78%)      | 160 (65%) | 53 (75%)  | 40 (77%)  | 0 (N/A)     | 10 (83%)   | 6 (67%)  | 3 (75%)    | 4 (100%)   |
| Connective functions                |              |           |           |           |              |           |           |              |           |
| Publicly oriented                   | 3 (33%)      | 166 (67%) | 47 (66%)  | 27 (52%)  | 0 (N/A)     | 1 (8%)     | 5 (56%)  | 1 (25%)    | 1 (25%)    |
| Conversational                      | 2 (22%)      | 85 (34%)  | 23 (32%)  | 12 (23%)  | 0 (N/A)     | 3 (25%)    | 4 (44%)  | 1 (25%)    | 2 (50%)    |
| Collaborative or layered            | 3 (33%)      | 122 (49%) | 38 (54%)  | 24 (46%)  | 0 (N/A)     | 5 (42%)    | 3 (33%)  | 1 (25%)    | 1 (25%)    |
| Property spanning                   | 0 (0%)       | 35 (14%)  | 4 (6%)    | 6 (12%)   | 0 (N/A)     | 3 (25%)    | 3 (33%)  | 3 (75%)    | 0 (0%)     |
| Total locations                     | 9 (100%)     | 248 (100%)| 71 (100%) | 52 (100%) | 0 (100%)    | 12 (100%)  | 9 (100%) | 4 (100%)   | 4 (100%)   |

Source: Authors.
Note: Percentages are rounded to nearest percentage point. Functions may include diverse kinds of practices (e.g., images and messages) appearing at the same property, location, and period.
Notably, signs of care and celebratory practices were almost entirely absent from streets.

Children’s play exhibited different patterns (see Table 2). Most locations pre-pandemic had these practices (78%, seven of nine locations). This share dipped to 65 percent in spring 2020, when stricter stay-at-home and distancing restrictions encouraged adult creativity, but otherwise persisted during the pandemic. These practices were similarly prevalent across streets, sidewalks, and driveways during the pandemic but especially common on streets in spring 2020 (83%, 10 of 12 streets).

**Connective Practices**

Many pandemic-era creative practices were socially connective. They fit into four types: “publicly oriented” (communicated with the public), “conversational” (made references to or requests of specific people), “collaborative or layered” (coproduced or produced over time), and “property spanning” (appeared on multiple properties; see Figure 3). Connective practices may reflect neighborhood social engagement or perceptions of rights to interstitial spaces, although we do not study this directly.

Publicly oriented practices were broadly comprehensible and outward facing, including images such as hearts and smiley faces and messages such as “Stay Well!!!,” “BLACK LIVES MATTER / LAS VIDAS NEGRAS IMPORTANT,” and the mirrored and street-spanning “HAVE A GOOD REST OF YOUR DAY—The AUSTIN’S.” They contrasted with practices that were more inward-facing and not intended for the public, including people’s names, doodles, and games lacking an invitation to participate.

Conversational practices allowed for social exchange in three ways. The first was messages to specific people, such as “Hi Jerry! We miss seeing you and hope that you’re staying healthy.” The second was exchanges or inquiries inviting exchange, like “We ARE FROM D.C.; I’M from IOWA Yay; yippie Write more; more.” The third was invitations, such as “Eric is 50 Today! Leave a message.”

Collaborative or layered practices were overlapping or had dissimilar qualities, including images and messages that appeared on top of one another, messages with different handwriting, use of grammar, or angular orientations and disparately styled images (e.g., straight vs. shaky lines). Collaborative practices had cohesive functions, such as celebrating a birthday. Layered practices had vague functions, such as scribbles and simple but cleanly drawn symbols, possibly indicating children and adults’ coproduction.

Property-spanning practices were most often children’s games, such as a block-long obstacle course connecting multiple adjacent properties. Another category was duplicate practices that appeared on multiple, nonadjacent properties, such as messages from “Mr. J.,” a local school bus driver, at bus stops, or from an anonymous person to “L♥VE THY NEIGHBOR.” Some people found these practices confusing, possibly indicating differences in people’s perceived ownership of these spaces and rights to expression. For instance, someone responded, “who wrote this Name”: to the message “L♥VE THY NEIGHBOR.”

Connective practices were more common during the pandemic’s early stages (see Table 2). The share of locations with publicly oriented practices more than doubled between the pre-COVID and spring 2020 periods from 33 (three of nine locations) to 67 percent, respectively. Property-spanning practices, although relatively rare, were unique to the pandemic and appeared only in Mountain Abodes.

Driveways became an important space for creatively connecting with neighbors during the pandemic (see Table 2). Publicly oriented and conversational practices were similarly prevalent on sidewalks and driveways in spring 2020 but remained more prevalent on driveways by spring 2021. For instance, 68 percent of driveways exhibited publicly oriented practices in spring 2021 compared with only 35 percent of sidewalks. Sidewalk practices became more privately oriented over the pandemic. Examples include those that had publicly oriented hearts and rainbows in spring or winter 2020 but privately oriented doodles and games by spring 2021. Collaborative or layered practices were more prevalent on driveways across periods, whereas property-spanning practices were more prevalent on sidewalks and streets during the pandemic.

**Toward a Social Geography of the Neighborhood Realm**

Our research documents a sociable space that emerged from neighborhood street, sidewalk, and driveway creative practices in three Phoenix neighborhoods during the COVID-19 pandemic. These practices helped households to cope and connect during a period of crisis and adaptation, integrating neighbors into new forms of socialization. Our findings extend Lofland’s (2017) notions of the parochial realm and knowledge on new forms of distanced, in-person socialization during the pandemic (e.g., Barnes 2021; Mehta 2020) by illustrating how residents used interstitial spaces to engage in communication, identity formation, and placemaking.

We offer five insights on the nuances of creative expression within the neighborhood realm, drawing from our observations in Phoenix. First, we witnessed an accentuation of existing practices and an emergence of novel practices. Children’s play practices persisted on sidewalks and driveways but also appeared on streets and diversified to include games and education during the pandemic. Novel practices, such as turning driveways into birthday cards and mazes, also evolved, inviting neighbors to participate in celebrations and other activities disrupted by the pandemic.

Second, streets, sidewalks, and driveways exhibit differences and similarities in the extent and functions of their practices over the pandemic. Driveways were dominant sites for socially connective imagistic and verbal expression,
which introduces a new social dimension to the utilitarian-focused discourse (Crawford 2014; Salomon 2017). These practices offered compassion and care in the context of disruption and loss, reflecting qualities of informal public memorialization (Sloane 2018). This potentially indicates residents’ greater perceived control and ownership of driveways although further inquiry is warranted. Streets, sidewalks, and driveways were similarly important sites for children’s play, yet only more suburban Mountain Abodes had street-based play, which is striking, given El Centro’s higher share of households with children (30% vs. 19%).

This hints at our third insight: differences in neighborhood design and conditions may shape the extent and range of interstitial creative practices. For instance, differences in street configuration likely affected children’s creative practices. El Centro and Heritage Place’s gridded streets and denser on-street parking may contribute to higher traffic volume and concerns about children’s safety, discouraging creative practices. Mountain Abodes’ curvilinear streets and sparser on-street parking may contribute to lower traffic volume and comfort with children’s safety, encouraging creative practices. Better understanding how the design and perceived safety of interstitial spaces influences creativity, particularly among children, is an important direction for future research.

A larger question is how neighborhood conditions interact with resident perceptions to spark and sustain creativity. For instance, Mountain Abodes’ higher homeownership and single-family detached housing rates may lead residents to perceive more ownership of and right to creatively engage in their neighborhood realm. Are there inherent differences between neighborhoods or residents that predispose them to higher levels or different kinds of creativity or sociability in common spaces? And, if so, are there implications for other types of social connectedness or community development?

Fourth, the extent and qualities of neighborhood creativity shifted over the pandemic. The number of properties with practices declined dramatically between the pandemic’s early and latter stages. Driveways and sidewalks became less important mediums for expressing social support and celebrating traditions. These shifts likely align with the phasing out of stay-at-home directives and easing of social distancing measures—even more so as adults became vaccinated. The shift toward and, subsequently, away from creative practices may also reflect how households processed and adapted to the socially restrictive pandemic context. Whether the observed creative social geography will remain active as the pandemic continues to shift and, eventually, fade is an intriguing question. That residents were still more creatively engaged in spring 2021 than in the pre-COVID period suggests some endurance. While residents’ practices were ephemeral, erased by rain and time, some remnants of their creative neighborhood connectedness may remain.

Fifth, and most important to planners, our findings underscore new roles and value for neighborhood streets, sidewalks, and driveways beyond their transportation utility (Jamme 2020; Kim 2012; Loukaitou-Sideris and Ehrenfeucht

Figure 3. Examples of practices with connective functions. 
Source: Authors.
2009). They are adaptive spaces able to support important social functions when conventional structures are disrupted (Russell and Stenning 2020). They also expand the idea of public memorials to something more broadly conversational and community minded (Sloane 2018). Public sector planners should revisit local regulations that may inadvertently suppress creativity in these interstitial spaces, particularly those related to graffiti and vandalism, and identify ways to better protect their social functions to help communities weather crises.

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