DIVERGENT SPACES, AFFIRMATIVE INFRASTRUCTURES

ABSTRACT _____ Feminist and disability theories reveal how human embodied experiences are situated – shaped by their environments, cultural contexts, and systemic oppression based on race, gender, disability, fertility, etc. In public spaces bodies can be supported, disabled, policed, or celebrated, according to their perceived (non) conformity. As such divergent bodies are more vulnerable to oppression. Against false neutrality, the agency of *divergence* [1] can convert public spaces into affirmative infrastructures.

_____ How could the built environment better serve diverse embodied needs? Could public spaces be designed more strategically to support specific human identities and in doing so create more affirmative spaces for everyone? Could practices of immersive public art and grassroots activism offer tactics for the conversion of public spaces as infrastructures that enable divergence rather than conformity to conventional norms? Architectural canons have long celebrated notions of autonomy, universality, and singularity in the design of the built environment. However, these concepts deny the multiplicity of real human bodies, identities, experiences, and individual preferences. These dynamics are political, as "the struggles of the last century were at heart about the right to be free of oppression based on the kind of body you inhabited" (Laing 2021: 305). Design practices and their built outcomes have historically relied on the idea of a standard user, from false depictions of a typical body [2] to reductive assumptions about human sensory perception. [3] Rather than expressing the inherent multiplicity of human embodiment, these narrow conventions reveal a disciplinary bias toward false standards that are typically male, white, cisgender, and normate. [4] Embraced for their utility in design, they are exclusive simplifications that negate the actual diversity of non-conforming human bodies and minds, reinforcing "the social process of making cultural otherness from the raw materials of human physical variation" (Thomson 1996: 60). As described by disability scholar and self-advocate Aimi Hamraie, "value-neutral built environments" are built from "material-discursive phenomena that mask the dominance of perceived majority identities and bodies" (Hamraie 2013: 8). Rather than a one-size-fits-all approach, how could the design of affirmative infrastructures meet specific human needs by deviating from, rather than conforming to conventional norms?
_____ As an architect who works on public spaces in New York City

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through research and design projects that aim to make those spaces more accessible, inclusive, and experientially diverse, I am interested in ways that generic public spaces are converted into radically alternative spaces. Such examples can be found in immersive public artworks, acts of protest or resistance, and events or uprisings that rapidly transform their environments, often in defiance of or deliberate difference from the immediate context. Sometimes the possibility of conversion is imposed from the top down, in spaces whose transitional nature is a product of administrative regulation. Sometimes it is instigated or claimed through ground-up actions. Could these often-temporary conversions of public spaces offer guidance for longer-lasting adaptations of the fabric of the city that could enhance its diversity and inclusivity? How might we understand such divergent spaces as essential affirmative infrastructures rather than exceptions from the norm? The following text explores the agency of divergence as it relates to bodies, minds, spaces, and infrastructures that deviate from the norms of their surroundings. Selected references from disability scholarship, intersectional feminism, immersive public art, grassroots activism, neuroqueer world-building, and design for neurodiversity underscore pose powerful counternarratives to dominant tendencies toward spatial standardization. Perhaps these exceptional spaces and the methods by which they are claimed, appropriated, inserted, cultivated, imagined, and realized, could offer techniques for implementing spatial infrastructures that affirm difference and divergence in the built environment.

THE CURB CUT EFFECT _____ Structural injustice manifests in built environments that are shaped by and reinforce social inequality. This occurs most intimately at the human scale, in circumstances such as inaccessible buildings, hostile architectures,[5] or gender-binary restrooms.[6] These spaces exclude or diminish specific bodily needs, and in particular those of people of color, LGBTQIA+ and gender expansive folx, individuals with disabilities, people who identify as neurodivergent, women, teenagers, immigrants, and others. Often underrepresented in design and decision-making processes, their lived expertise rarely informs the design and construction of built environments. "Bodies are there in a way that architects don't want or can't afford to recognize. But the body is there in an incontrovertible way. The point is to affirm that it's there, and to find the right kind of terms and values by which to make it profitable for architecture to think its own investments in corporeality" (Grosz 1991: 14). To create affirmative environments,

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diverse embodied knowledge is necessary to inform spatial design practices and built outcomes.

_____ The "curb cut effect" describes how design for specific, non-normative needs and identities creates transformative spatial conditions that benefit and enhance experiences for everyone (Blackwell 2017). These are informed by the lived experiences of self-advocates who navigate the challenges, limitations, and hostility of conventional environments in their everyday lives. Designed for wheelchair users, physical curb cuts – i.e., sloped depressions to create a flush transition where the sidewalk meets the street – also benefit caretakers pushing strollers, delivery workers pushing carts, people with limited physical mobility, and more. Rather than a one-size-fits-all approach, the curb cut serves multiple and diverse needs through its specificity, providing a choice for how to safely navigate space that is essential for some and beneficial to many. Now universal, the prevalence of the curb cut in urban environments reveals the potential for scalable design responses to other kinds of human divergence. What forms could a "curb cut" inspired by neurodivergence take? Affirmative design approaches celebrate difference by supporting a range of embodied identities and needs instead of perpetuating spatial homogeneity. Recognizing that access, use, and appropriation of space are political, they center the needs of individuals and groups that are made vulnerable, excluded, and underrepresented in conventional built spaces.

DIVERGENT BODIES _____ The term _divergence_ describes the spontaneous or strategic claiming of an alternate path or the straying from a norm. Its opposite, convergence, refers to a strategic coming together of disparate entities – an "encounter between different actors and movements in a given space without them losing their relative autonomy" (Farris 2017: 6). In contrast, divergence is an expression of difference – a separation from an assumed trajectory that asserts a critical distance, autonomy, or exception of the divergent actor. A key concept of feminist theory, difference is the distinction between individuals that contributes to the multiplicity of human experiences and identities. Perhaps more than shared traits, humanity could be better understood through this incredible capacity for difference. In this way, divergence could be a source of mutual understanding and a framework through which new forms of community might emerge, rooted in shared experiences of otherness.

_____ To equitably shape the composition of the built environment, necessary expertise comes from the lived experiences of individuals whose embodied identities do not conform to the false neutral

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standards that govern conventional design. Their experiences defy societal and behavioral norms that built environments are created to support. In his book *Architecture and Disability*, disabled designer and historian David Gissen argues that the contemporary architectural notion of the environment is far more constrained than the more expansive understanding of human experiences explored in contemporary disability theory that questions "the human norms built into spaces, artifacts, and institutions – from the design of public parks to the physical form and location of human-scaled elements" (Gissen 2022: 108). In their podcast *Dreaming Differently*, neurodivergent artist and creator Jezz Chung explores the possibilities of worldbuilding through joyful neurodivergent expression, or "how we can redesign our reality to work with our brain" (Chung 2023). Instead, the built environment is typically organized according to a relatively narrow understanding of human cognition. Architectural design discourse and practice have much to learn from the expansive range of physical, intellectual, and cognitive disabilities and the embodied knowledge gained through the "layered," "nuanced," and "cosmic" lived expertise of people who experience them (ibid.: 2023). Instead, conventional architectural approaches to worldbuilding reinforce assumptions that human perception and experience are finite and controllable by design.

Enabling individuals to interpret and engage their immediate surroundings in open-ended ways goes against conventional design tendencies that prescribe program, behavior, spatial sequence, and experiential narratives in constructed environments. It also goes against common approaches to design for disability that are often limited to adherence to regulations like the American Disability Act (ADA) in the US. These hard-fought measures, achieved through prolonged, radical activism of disabled self-advocates in the 1970s and 80s, have resulted in the hugely necessary transformation of built spaces in the US to enable access for people with physical disabilities. However, just as sustainability cannot be reduced to LEED standards, design for human disability should not be limited to a formulaic checklist of solutions that verge on another form of standardization. Post-ADA concepts of universal design inadvertently promote disability-neutrality in their emphasis on design solutions that work for "everyone." Hamraie calls this confusing "because it does not clarify what 'everyone' means in a world that devalues particular bodies. Similar to the idea that we live in a post-racial society, wherein race is a fiction and civil rights laws have mandated equality, rendering oppression immaterial, terms such as 'everyone' give the impression that legible belonging in a

population is unmediated by historical, political, or social ways of knowing" (Hamraie 2017: 11).

_____ Rather than centering bodily needs and identities, accessible design components are often tacked on as afterthoughts in built spaces. Even so they are often celebrated for their benevolence despite achieving only the bare minimum of accessibility requirements. For Gissen, this reluctant accommodation underscores just how inherently disabling normative built spaces are, designed according to a "deterministic and mechanistic understanding of human physiology" (Gissen 2022: 96). Designers tend to align "aspects of human experience and perception with programmatic needs in literal and uniform ways" (ibid.: 96) that negate the inherent multiplicity of how they are perceived, felt, maneuvered, and adapted by the people that use them.

_____ While approaches to accessibility in the built environment have largely focused on physical disabilities, the discourse of neurodiversity offers a broader understanding of the range of human experience and divergence. Neurodiversity refers to the "infinite variation in neurocognitive functioning within our species" (Walker 2021: 45) and encompasses both diagnosed and undiagnosed neurological conditions like autism, ADHD, Tourette's, and more. Though definitions vary widely, broader interpretations of the term also include psychological and emotional conditions like bipolar depression, PTSD, and anxiety, all of which impact a person's experience of and sensitivity to their surroundings.[7] Put simply, humans experience the world differently because they are different individuals with unique cognitive traits. This acknowledges the myriad of factors, biological and experiential, that shape the ways people perceive and respond to the world around them.

_____ The term "neurodivergent" describes individuals whose minds function in ways that "diverge significantly from the dominant societal standards of 'normal'" (Walker 2023), having a similar relationship to the term "neurotypical" as that of "queer" to "straight" (Walker 2023). Research conducted with neurodivergent individuals indicates the significant impact of spatial characteristics on their experiences. For example, students with autism and their educators often make strategic spatial alterations to learning environments to improve the student's ability to focus and engage in educational activities, customizing the space around them to fit their needs. This might include arranging separate spaces for different learning formats or providing escape spaces for retreat and transition in between. Researcher and architect Magda Mostafa, who has documented these behaviors as part of her research about

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neurodivergence and environment, notes that "most interventions for autistic individuals, predominantly medical, therapeutic and educational, deal with the sensory malfunction itself and the development of [coping] strategies and skills for the autistic individual to use" (Mostafa 2014: 145). Her work identifies an alternative, human-centered design approach, through spatial interventions that adapt the environment in ways that make it more supportive, rather than seeking to change a neurodivergent individual's behavior.

_____ Mostafa highlights the benefits of "altering the sensory environment, i.e., the stimulatory input, resulting from the physical architectural surroundings (color, texture, ventilation, sense of closure, orientation, acoustics etc.)" (ibid.: 145). From her research, she has developed design guidelines for educational and interior environments offering criteria for spatial and experiential improvements that benefit neurodivergent users by increasing the range of environmental conditions. These include considerations for acoustic and sensory performance, spatial compartmentalization, and sequencing, creating distinct experiential areas and transitional zones spaces between them, and offering spaces for escape when feeling overwhelmed or overstimulated (ibid.: 145). Rather than prescribing how spaces are used, this design approach invites variation and choice, creating diverse yet specific spatial options that contribute to the overall accessibility for a range of human needs.

_____ Conventional approaches to accessibility in the built environment tend to do the opposite by incorporating "barrier-free" or "universal design" strategies that aim to solve for everyone rather than responding to individual needs. The notion that environments could have zero barriers for anyone or be universally accessible for everyone always is as unrealistic as that of the standard human body, again negating the real multiplicity of human differences. Hamraie writes,

> "Fitting and misfitting are material-discursive, relational, and interdependent categories. In order to sustain itself, the normate template relies upon the impression that normates are normal, average, and majority bodies. Misfitting shatters this illusion, marking the failure of the normate template to accommodate human diversity" (Hamraie 2013: 9).

_____ Some things fit for some bodies while for others they don't. This reality underscores the need for a shift in design thinking from seeking holistic solutions to providing environmental variation and

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choices, enabling individuals to determine which spatial conditions best meet their specific needs in the moment.

_____ Beyond the design of built spaces, bodies are marginalized by and within the same systems of oppression that have pushed humankind and all forms of planetary life to the brink of irreconcilable crisis – colonization, capitalism, resource extraction, fossil fuel industries, pollution, white supremacy, autocracy, patriarchy, ableism, etc. The effects are experienced disproportionately based on a person's unique and intersecting bodily vulnerabilities, geographic location, socioeconomic status, and social context. While "humans may all be in this together, we are in it in very different ways. Our humanness is textured by compelling differences in circumstance, location, and accountability" (Neimanis 2021: 8).

_____ Feminist and disability theories oppose notions of universality, recognizing and celebrating human differences and embodied experiences that are shaped by environmental conditions. Intersectional feminism emphasizes the role of compounding factors of injustice (e.g., race, class, sex, gender, disability) in the pursuit of alternative narratives of human liberation. Rooted in subjectivity, these worldviews draw from both oppositional forms of knowledge that are defined against oppressive systems (anti-racist, de-colonization, anti-patriarchy) and creative practices that explore individual ways of being in relation to others (worldbuilding, community building, self-empowerment). For feminist and disability experts, the critical and constructive go hand in hand. Important texts like Rosemarie Garland Thomson's *Extraordinary Bodies* (1997) and Patricia Hill Collin's *Black Feminist Thought* (1990) explore subjectivity and identity as tools for the "dismantling of a unitary category [of] woman" (Thomson, 1997: 24). "Emphasizing the multiplicity of all women's identities, histories, and bodies, [this approach] asserts that individual situations structure the subjectivity from which particular women speak and perceive" (ibid.: 24). By highlighting the importance of Black women's self-definition, Collins emphasizes the necessity of questioning the "intentions of those possessing the power to define" (Collins 1990: 114). Trusting one's own self-knowledge and lived understanding rejects "the assumption that those in positions granting them the authority to interpret our reality are entitled to do so" (ibid.: 114).

DIVERGENT SPACES _____ Access to space and the appropriation of it is political. The spaces "we have, don't have, or are denied access to can empower us or render us powerless" (Weisman 2000: 4). Public spaces are often designed to be neutral, following a universal

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design approach that achieves at best a "one-size-fits-most" level of accessibility. Instead, by reinforcing the status quo, this neutrality promotes conventional normativity and complacency with oppressive systems in place rather than offering alternatives or enabling divergence. Without those possibilities, generic public spaces become less accessible for anyone without a generic identity. The lack of spatial variation in an open plaza might render it inaccessible for someone who has heightened sensitivity to over-or under-stimulation. Acknowledging the importance of environmental range and choice, the insertion of divergent spaces into the public realm could offer experiential "curb cuts" to improve human accessibility and affirmability.

––––––– Radical conversions of public spaces are more often achieved through artistic or activist appropriation than systemic design. Some public artworks exist as singular objects and neoliberal symbols that reinforce oppressive systems. Others that instigate spatial transformation as critical resistance, promoting divergence through their medium and message. One example of the latter is Agnes Denes' *Wheatfield* that converted of a portion of what was then a vacant brownfield of the Battery Park landfill (created from the excavated soil and rock from the construction of the World Trade Center) into a two-acre field of wheat grain and anti-capitalist statement against the backdrop of Lower Manhattan's financial district and its inherent symbolism of world commerce (Denes 1982). More recently, Pamela Council's *A Fountain for Survivors* inserted a sculpted, curvilinear sanctuary meticulously textured with pink and purple acrylic nails into the bustling, chaotic environment of Times Square.

––––––– In the words of the artist, *Fountain* was "both an ode to the ways in which we maintain ourselves and an exuberant life-affirming monument for survivors of all kinds" (Council 2021). Experientially, the artwork created an inhabitable escape from the dehumanizing overstimulation of its immediate surroundings, analogous to the self-preservation required to survive oppression to which the work refers. In both *Fountain* and *Wheatfield*, the exceptional nature of the site conditions contributed to the radicality of the artwork.

// Figure 1
Pamela Council's *A Fountain for Survivors* public art installation in Times Square, 2021

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In different ways the works created divergent spaces in contrast to their surroundings, inserting softness against hardscape, humanity against commerce, empathy against apathy. Highlighting themes of maintenance and regeneration, the works drew from feminist care ethics in their respective messages.

_____Like bodies, divergent spaces challenge restrictive notions of normativity and whether they should hold the level of importance society often gives them. By deviating from formal, social, political, or other conventional systems around them they hold space for difference, creating opportunities for immediate and lasting transformation within and beyond their footprints. In this way, non-compliance yields spatial agency, situated within but evading the rules of immediate administrative systems. At its best, public art can offer powerful counternarratives to the existing through compelling spatial transformation. Could the experiential transcendence of public art be implemented into the built environment as a system rather than spectacle?

_____At the same time *Wheatfield* was being cultivated on its grand Lower Manhattan stage, a smaller scale of feminist, community-based seed-sowing actions were implanting other divergent spaces in underserved neighborhoods across New York City. During the 1970s and 80s, local activists in these communities threw "seed bombs" over fences into vacant lots that were otherwise unmaintained by the city. These acts of guerilla gardening were instigated by groups of artists, residents, and grassroots organizations frustrated by the city's neglect. Attempting first to beautify the abandoned spaces, the collective actions gained momentum as networks of these ad hoc gardens emerged across the city. Their instigators advocated for the official designation of community gardens[8] as autonomous, collectively maintained zones in neighborhoods like the Lower East Side, Harlem, the South Bronx, Bedford-Stuyvesant, and East New York that had been most affected by blight and decay, caused by broader economic crises, property abandonment, and gentrification in other areas of the city. "Community gardens were marginal spaces on the spatial maps of capitalism […] they negated, and to some extent reversed, the destruction that prevailed around them" (Eizenberg 2013: 22).

_____The convertibility of the vacant, sometimes foreclosed lots was enabled by the simultaneous presence and absence of municipal oversight. "Whether struggling to establish the gardens in the midst of urban decay or later on struggling to preserve them in the face of powerful market forces and unsupportive municipality, the gardens can be understood as an alternative force and counter-reaction to

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the prevailing urban order" (ibid.: 22). Resisting the top-down systems that had disenfranchised the spaces and their communities to begin with, the emergent network of gardens instigated a ground-up network of divergent spaces as affirmative infrastructure. Feminist practices of care, cultivation, and maintenance were integral to the spatial and experiential identity of the gardens. Eventually the city granted community gardens official status, providing resources to support their maintenance and operation by local citizens. Today there are hundreds of community gardens across New York City. No longer illicit, the gardens continue to be spatially and experientially distinct from their surrounding contexts. Amidst the dense, privately owned building fabric, they offer lush pockets of community-maintained outdoor spaces that are regularly, though not continuously, accessible to the broader public.

// Figure 2
Liz Christy, founder of the rebel gardening group, Green Guerillas, in the community garden named after her in the Bowery, 1975

───── Operating within and outside their contexts, their spatial divergence enables them to serve human needs not otherwise met in their normative surroundings.

AFFIRMATIVE INFRASTRUCTURES ───── The examples of NYC public spaces converted in temporary and lasting ways through artistic and activist actions offer precedents for the implementation of divergent spaces in urban environments. While the public art references are stand-alone occurrences, community gardens demonstrate the possibility of a more systemic spatial impact. To achieve that impact, a pre-existing network of readily convertible sites was necessary. The exceptional or deviant nature of those sites made them more agile and able to be transformed. In urban contexts various spaces of exception exist as gray areas – liminal zones that are controlled, neglected, maintained, or marginalized by the complex regulatory contexts in which they exist. The absence or abundance of administrative control in their immediate surroundings contributes to their vulnerability and agency, creating the possibility for their conversion.

───── In contexts built on structural inequity, strategic conversions of public space through divergence occur when the street becomes a protest, the plaza becomes a demonstration, the vacant lot becomes a lush, planted terrain, or the street becomes a refuge. These transformations defy the existing norms of their surroundings, enabling alternative, insurgent sites of "radical openness and possibility" (hooks 1990: 153). bell hooks locates this possibility in the margins,

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referring to both physical location and social identity. "To be in the margin is to be part of the whole but outside the main body" (hooks 1984: xvii). Rather than an obscure space, the margin becomes "a central location for the production of a counter-hegemonic discourse" (hooks 1990: 149). For spaces and people, to be "marginal" is to be both marginalized by existing systems and to assume the divergent power of the margin, shifting away from the dominant center.

_____ Empowered marginality is central to queer theory that celebrates divergence from normative gender expression. Gender is constituted by a person's behavior and actions in relation to "culturally conditioned habits of embodiment and activity" (Walker 2021: 241). Within a heteronormative context, the dominance of cisgender expression "can be subverted, transformed, modified, loosened, escaped from, and/or rendered more fluid through engagement practices that creatively deviate from [it]" (ibid.). Practices of "queering" are defined not by set characteristics but rather by their divergence from restrictive normative frameworks. There are infinite ways that an individual's self-expression might defy such norms. This multiplicity reveals the limits of constructed gender binary standards and how they fail to encompass the full range of human identities and orientations.

_____ Queer spaces are those where individuals whose gender expression diverges from heteronormative standards are free to act in ways that affirm their identities. They exist "in a spectrum of different forms, shaped by and catering for a range of different queer communities and individuals" (Furman 2022: x). They are situated, each with its own "story, urban and architectural contexts, needs, aesthetics, tribulations and joys" (ibid.: x). Though the formats, typologies, and characteristics of queer spaces vary, they are spaces defined by their ability to affirm specific aspects of human identity. "In contrast to the highly urbanized, hard outside, the inside of the nightclub is luscious, soft and colorful. [...] Spaces throughout are for abilities which are seen and unseen, from physical capacities to spectrum disorders and sensory sensitivities." (Summers 2022: 80). By supporting the specific needs of one marginalized aspect of human identity, queer spaces become mutually beneficial for many. Operating both within and outside the conventional homogeneity of the built environment, queer spaces instigate affirmative trans-formation from within.

DESIGN FOR NEURODIVERSITY _____ Like the neurodiverse human population it serves, an equitable built environment should offer affirmative infrastructures that celebrate variation, divergence,

and multiplicity rather than perpetuate false neutrality. Despite their layers of administrative oversight, regulatory standards, and functional requirements, public spaces could become more radically inclusive if their homogeneity were more often disrupted. To implement the affirmative infrastructures to do so, a set of opportunistic site conditions should be defined. As shown through the examples discussed in this text, spaces situated within transitional, exceptional, and marginal contexts might hold greater potential for conversion.

_____ Streets are simultaneously regulated and haphazard spatial infrastructures where a range of human vulnerabilities and shared needs converge. They are where people move, linger, meet, gather, act, pause, sleep, perform, and express themselves, as well as arteries of various public and private modes of transportation, and where vital utilities and services are delivered to residences, businesses, and essential municipal systems. As cities shift away from car-centric planning toward more pedestrian and multi-modal transportation networks, streets are being reimagined as vibrant, adaptable, and restorative community spaces.[9]

_____ Heightened demand for the transformation of streets surged in NYC during the COVID-19 pandemic that instigated the rapid conversion of more than 83 miles of city streets into car-free, pedestrian-friendly open spaces for multiple shared uses during the time when collective gathering in indoor spaces was restricted.[10] The NYC Open Streets program instigated a rapid and widespread conversion of streets, despite their inherent complexity of infrastructural systems, vehicular and foot transportation, sanitation networks, utilities, goods and services delivery, the pedestrian right of way, and more. Successful instances of Open Streets showcased how the suspension of vehicular traffic and private parking could create opportunities for gathering, recreation, outdoor classrooms, street festivals, political activism, artistic expression, and other forms of cultural and community use.

_____ As pandemic-driven initiatives to re-appropriate available outdoor spaces catalyzed a visible rethinking of streets across New York City, they also created new opportunities for designers and artists to participate in their conversion. In 2021, the feminist design practice WIP Collaborative, of which I am a co-founding member, created a streetscape installation in response to an RFP calling for designs to invite and encourage people to re-emerge into public space after months of social isolation during the pandemic. The installation, entitled *Restorative Ground*, boldly transformed a street in Lower Manhattan into an immersive landscape of choice,

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offering a range of environmental characteristics to support diverse needs.

_____ The design of *Restorative Ground* was informed by interviews WIP conducted with neurodivergent self-advocates and neurodiversity experts about their spatial preferences. Our findings emphasized the importance of environmental variation and choice to suit a range of individual needs. Through open-ended conversations with the design team, participants responded to a visual collage of images displaying various characteristics ranging from spatial to material to activity and use.

_____ Self-advocate responses revealed the insufficiencies of conventional public spaces. For families of autistic children, it is beneficial to have access to calm, semi-protected spaces adjacent to more open environments, where they can pause or "escape" when feeling over-stimulated. For neurodivergent young adults, spaces to play and be active that aren't restricted to young children can be difficult in typical urban environments. Physical qualities like various surface textures, material tactility, spatial compartmentalization, and incorporating different color families can be positively stimulating and soothing for individuals with various sensory sensitivities. In response to these conversations and findings, WIP's design of *Restorative Ground* integrated different spatial characteristics into a cohesive streetscape installation offering a variety of accessible spatial experiences and use options.

_____*Restorative Ground* provided a range of experiential qualities in carefully crafted high and low stimulation zones with tactile materials and textures. Intended to support specific individual needs and sensory preferences by offering areas with distinct environmental qualities, its design enabled individuals to inhabit and use the space in ways that felt most supportive to them. The installation maintained a cohesive overall geometry while offering specific elements such as large communal tables for focused use, an angled peak for active play, and an oversized hammock for calm relaxation.

_____ As an infrastructural intervention, *Restorative Ground* straddled a portion of the street and sidewalk, occupying the allowable

// **Figure 3**
WIP Collaborative's *Restorative Ground* in Hudson Square, Lower Manhattan, 2021
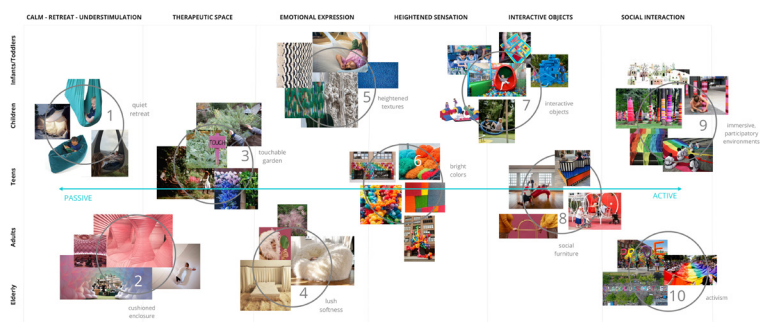
// **Figure 4**
Digital collage used for interview with neurodivergent self-advocates, experts, and family members, 2020

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footprint designated by the NYC Open Streets program for private restaurant dining, claiming the eight-foot-wide street parking lane and extending over a portion of the adjacent sidewalk. Reimagining this space for collective use rather than private business, the design both conformed to and diverged from the design guidelines for street seating structures under these programs. In keeping with those requirements, the geometry provided a flush, accessible edge at the sidewalk and the required 36-inch-tall protective barrier along the street-facing side. The resulting wedge-like volume was carved and sculpted to create the installation's dynamic terrain punctuated by shapes and surfaces to invite various kinds of occupation and engagement.

// Figure 5
People enjoying the hammock in the calm zone of *Restorative Ground*, 2021

_____ The distinctive color, material, and finish applications of *Restorative Ground* including orange-red recycled rubber, stained marine plywood, rough synthetic turf, and soft nylon netting enhanced both the distinction of specific zones as well as the overall continuity. These were design choices made to foster a shared space intended to ease some of the tension, uncertainty, and trauma associated with public spaces during the pandemic. Having learned from the neurodivergent self-advocates about their lived expertise in navigating generic public environments and which spatial characteristics feel most comfortable and engaging to them, WIP aimed to create a space that was immersively distinct from its context, providing both flexible specificity and open-endedness in its composition.

_____ Through its dynamic form, multi-textured surfaces, and non-prescriptive approach to the design of public space, *Restorative Ground* offered an alternative to conventional urban streets and open spaces. At the time of the installation's construction in 2021, outdoor venues for individual respite, social gathering, and collective healing were desperately needed as society re-entered the public realm after the pandemic lockdown. This extended period of COVID-19 emergency was defined by many top-down actions from lockdowns to prevent disease spreading to the city-mandated conversion of streets to enable outdoor gathering. That conversion revealed the agency of streets to be transformed, affirmative infrastructures, offering divergent spaces of refuge amidst broader circumstances of uncertainty. *Restorative Ground* offers a prototype for that transformation by designing for specific and diverse aspects of human identity and experience instead of conventional norms.

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WIP Collaborative is now engaged in a long-term, phased research and design prototyping effort called "The Neurodiverse City" in partnership with The Design Trust for Public Space and a collaborating design team from Verona Carpenter Architects. Building on the learnings from *Restorative Ground*, WIP has developed a research approach to better understand the experiential qualities of streetscapes through a surveying process with neurodivergent self-advocates. Through both on-site and digital surveys, the project aims to better understand how individual preferences shape human experiences of existing street conditions, to design and test ways they could be improved through physical alterations and additions. Moving from singular installations towards systemic change, the project seeks to further explore how divergence could be supported and enabled in the built environment at the scale of accessible urban infrastructures that could be implemented on streets across the city.

Incorporating qualities of both art and infrastructure, *Restorative Ground* offered a site-specific conversion of a public space in a moment of transition. Like the other public works discussed, the spatial transformation it created responded to both physical and sociopolitical contexts, posing broader questions of societal values and systems of power. Like queer spaces and the self-appropriated learning environments of neurodivergent users, affirmative infrastructures instigate spatial alternatives to the conventional standards of the built environment to better support specific human needs that are not typically addressed. Importantly, they pose counternarratives to the status quo and against the generic homogeneity of their contexts. They might occur at different scales, but always in support of a range of human behavior and the various ways bodies move, sit, rest, lounge, linger, gather, climb, jump, hunch, rock, lurch, swing, lean, tuck, embrace, and stand alone and together.

To affirm is to assert as valid, to express belief in, and to confirm human identities made vulnerable by power imbalance, structural inequity, social disenfranchisement, or their own divergence from norms. Affirmation is the work of intersectional feminism, disability justice, queer liberation, and other social justice efforts. In the built environment, affirmative infrastructures enable divergence from the generic, one-size-fits-all composition of space, offering flexible agility rather than static complicity.

For practitioners of the built environment, designing for divergence begins by centering the interests and expertise of individuals and groups that are underserved in conventional public

// **Figure 6**
People of all ages spending time at
***Restorative Ground**, 2021*

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spaces because their identities and bodies do not conform to the normate standards that have guided conventional design practices to date. It combines techniques learned from artistic and activist spatial practices and seeks opportunities to productively deviate from regulatory conditions. As articulated in feminist, disability, queer, and critical race theories of human liberation, the lived experiences of persons whose identities counter dominant norms offer powerful, alternative ways of knowing and worldmaking. They elicit conspirative spatial practices that can shape built environments in ways that affirm both individual identities and collective needs, and the multiplicity of human experiences they represent. By embracing the divergence of bodies, minds, spaces, actions, and human expressions, the design of the built environment can foster the affirmative multiplicity necessary to truly serve and support every body.

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Figure 1: Pamela Council, *A Fountain for Survivors*, 2021, © Michael Hull for Times Square Arts, Source: https://www.pamelacouncil.com/artwork/a-fountain-for-survivors
Figure 2: Photograph of Liz Christy in her community garden on Bowery and Hudson, 1975, © Don Loggins, Source: https://joannaingrid.wordpress.com/2013/04/23/remembering-liz-christy-on-earth-day/
Figure 3: WIP Collaborative, *Restorative Ground*, 2021, © Hudson Square Properties
Figure 4: WIP Collaborative, Digital collage, 2020, © WIP Collaborative
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// About the Author
Lindsay Harkema is an architect, educator, founder, and co-founding member of WIP Collaborative, a shared feminist practice of independent design professionals based in New York City. Her research and design projects center on care, equity, and co-creation in the built environment and engage the public realm at a range of scales to create opportunities for positive change. With WIP Collaborative, she is engaged in long-term research projects about feminist spatial practice and community-led design for neurodiversity in the public realm. She teaches architecture studios at Cornell University, The City College of New York, and Barnard College, and has previously taught at Syracuse University and The New School. Harkema completed her Master of Architecture at Rice University and her undergraduate degree in architecture at Washington University in St. Louis. She is a licensed architect in New York state. Recent publications include: Harkema, Lindsay and the members of WIP Collaborative (2023): Community and Collaboration. In: Fiehn, Rob et al. (eds.), *Collective Action! The Power of Collaboration and Co-design*, Design Studio Vol. 6, pp. 30–39; Harkema, Lindsay (2021): Towards a Generic Public. In: Kenniff, Thomas-Bernard / Lévesque, Carole (eds.), *Inventories*, Montréal, Bureau d'études de pratiques indsciplinées, pp. 66–75, and Harkema, Lindsay (2019): The Private Space of Collective Resistance. In: Bhatia, Neeraj and White, Mason (eds.), *Bracket [Takes Action]*, Vol. 4, pp. 58–67.

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