New Problematics and Prospects for Public Space: An Experiment with Cul-De-Sac

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Times of rapid environmental and cultural change impelled by disasters, pandemics, and socio-political unrests deem essential broadened awareness and resilient tenacities for an urbanism that is set to act in post-traumatic modes. In times of precarity, urban public realm spaces in various shades and most mundane shapes are ever more vital to help cities heal by restoring their social longevity, improving people-environment relations and setting the pace for future generations. On top of effective micro and macro projects, successful cities stand out through vigorous middle-scale spaces in their boroughs, districts, and neighborhoods. This essay resumes discussions on the role of public realm in neighborhood commonplaces through experimentations via a didactic exercise reexamining cities' contemporary cul-de-sac forms and spaces.

The prevailing and familiar spatial layout of the cul-de-sac is explored and extrapolated. It is often the most obvious of things/topics around us that are not viewed critically or at all. Cul-de-sac as the topic of investigation is considered both literally and figuratively, a space with concrete dimensionalities, a symbol of designed seclusion as modern residential ideal and a metaphor for roadblock qualities cities and neighborhoods are facing today tangled with larger inequalities, uneven developments, and lacks in connectivity, permeability, sociability, etc. These effects have become emblematic of urbanizations *sacked*, disengaged, and close-ended conditions resulting in fear of the *other*, diminished public realm and depleted social life.

Starting with background studies and synoptic understandings of the genre's past and present, the essay follows through with a comparative undergraduate design studio exercise. The introductory, warm-up practice uses particular socio-spatial analysis methods in evaluating current conditions for stretching spatial opportunities. Advancing the cause, prospects and initiatives for the future public space, this piece concludes with a review of the pedagogical process, methodological application, and thoughts on the reexaminations of cul-de-sacs for enhanced and possibly unfamiliar experiences.

[As porous as this stone is the architecture. Building and action interpenetrate in the courtyards, arcades, and stairways. In everything they preserve the scope to become a theater of new, unforeseen constellations. The stamp of the definitive is avoided. No situation appears intended forever, no figure asserts its 'thus and not otherwise.' … For nothing is concluded. Porosity results not only from the indolence of the southern artisan, but also, above all, from the passion for improvisation, which demands that space and opportunity be preserved at any price.]

—Benjamin and Lacis, *Naples*

PUBLIC REALM *ANEW* RESTORING NEIGHBORHOODS

In a world with camera angles and viewpoints shifting, emerging lessons for urban design are lingering to be seen. Contemplating during the COVID-19 lockdowns, David Heymann (2020) discovers how his fairly-close-to-city-center Austin neighborhood has always essentially been "an immense cul-de-sac," which presents to him an exceptional productive-condition quality. "I've long enjoyed walking in the calm to think," he writes, indicating how the response to the pandemic has had little effect on this quality of stillness. Yet, all too suddenly, because of shortages in other downtown social spaces, the stillness was disrupted. More demands and many more neighbors are now appropriating any available public space presented to them. "People were suddenly out everywhere, all day." In realization of the discomfiting situation, by accident, Heymann starts walking in Austin cemeteries, sighting their immense green spaces as valuable rarities that is still, opportunistically, open to the public when other, park, pool, and trail spaces were all closed. Such post-pandemic observations on our most everyday urban entities in typical neighborhoods are invaluable. These must be done while underpinning the unique zeitgeist of the time related to mandates for navigating a new normal. Universally, these together can underline existing deficiencies in middle-scale urban spaces. Urbanites' frustrations with confines of standard social realm during unusual times is a prove to the needs for more elasticities with new and expandable typologies suiting everyday social life in ordinary neighborhoods.

Figure 1. Top: Real life appearing surreal due to pandemic lockdowns. Social life connections to prevailing public space manifest *Rear-Window*-like qualities awaiting *Cinema-Paradiso*-like solutions, recreating the public square anew. [Left] Cinema in Jacksonville, Florida is shown closed in March 2020 due to the coronavirus pandemic, Image Courtesy of Seth Langer, Source: Instagram @let.the.eat.likes. [Middle & Right] Scenes from Alfred Hitchcock's 1954 film "Rear Window" and Giuseppe Tornatore's 1988 "Cinema Paradiso" are coming to life, Images courtesy of the film-makers. Bottom: Months into the pandemic, societies find creative ways to appropriate available spaces to cope and thrive in adverse conditions. Greece's outdoor theatre tradition offering hope. Images Courtesy of Petros Giannakouris.[1]

Better cities and towns (small, medium, and large) bid better spaces at all scales, including in middle-scale spectrums of their boroughs, districts, and neighborhoods. In addition to high-quality buildings and infrastructures, successful cities distinguish through vigorous public realm spaces in the habitation units of typical residential neighborhoods. The commercially-driven and most artificially-invented downtowns and business districts, despite offering service-oriented privately-run spaces for social use, cannot genuinely identify as public space. They are often providing exclusive, more likely heavily gendered, raced, and classed social spaces. Aside from these kinds, all other public realm spaces have been long shrinking in many cities due to trends towards privatization, globalization, and the communications revolution, all too influential in shifting the supply-demand dynamics of public spaces (Banerjee 2001, 9). In the United States, beyond some handfuls of bountiful cities like New York, Portland, and San Francisco, efficacious neighborhood-scale public realm is often rare in most other average towns and cities. This is despite the significance of social life in the health and wellbeing of neighbors. Moreover, typical residential neighborhoods are often the foremost taken-for-granted urban units by local and state governments, city officials and policymakers who have long been standing stronger behind downtowns and commercial districts, instead.

This study explores current and prospective implications of the middle-scale neighborhood urban public realm spaces. These essential entities should have long ago been worked out in ways best fitting human scale and experience. Yet, the study asserts otherwise, that the middle scale is usually glossed over by officials, designers and urbanists alike, considering how typical neighborhoods are often not a focal attention in much of urban regeneration schemes. Despite ostensible government intends

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and funding allocation to improve neighborhood conditions, official decisions most often opt for more practical and short-term economic development, with reasons naturally leaning for prioritizations and stimulation funds in commercial districts and downtowns. Obviously, quicker monetary returns on investment for cities with taxation benefits is a key motive. The study invites that such dynamics must change, efforts must be redirected, and further attention must be paid to a fairer and more even development shares for all, mainly underprivileged and middle neighborhoods.

In the year 2020 with the COVID-19 pandemic, local public spaces and places have instituted further augmented values and are likely to continue their expanding worth. Cities, hence, must make more solemn pledges to further equitable and inclusive neighborhood regeneration efforts, for not just business districts, but also localized in most mundane sites of global urban fabrics. The recent study by Danish firm Gehl Architects on public space and public life during COVID-19 adds knowledge and evidence to the statement above.[2] Their recent research concludes on how, in the near future, smaller-size and further localized public spaces and places such as school yards, pocket parks, and small squares will be appreciated even more. It is probable that the more novel types of localized public spaces could serve more important roles in global urban life, compared to the past and also instead of larger centralized urban public spaces such as those in downtowns and city centers.

Drawing on the accentuated status of localized public spaces and reconsiderations for the urban middles, recipelike interventions can be effective in reimagining better neighborhoods of the future. Sim (2019) makes a pertinent case for soft cities that, conjured as relationship spaces, are enablers of human connections by sharing the essential quality of softness. Much less about grand ideas, soft cities are made for the human scale, relating their small body figures to various experiences. In contrast to the harshness of standard single-zoned city planning that is separating peoples, spaces and activities into silos, the soft city manifesto projects a quality of life that comes from the connectedness of even most conflicting everyday aspects in order to foster relationship-building across generations and contexts. Paris Mayor Anne Hidalgo's proposal for a 'fifteen-minute city' or Barcelona's new 'superblock' mobility strategies that are in favor of pedestrianization are exemplary cases showing ways paved to softer cities.

EXPERIMENT WITH CUL-DE-SAC

For evaluating public space deliberations related to urban middles, this study sets a narrow interpretative experiment. Conducted as beginning design-research studio exercise, experimentations take on the concept and typology of contemporary cul-de-sacs as subject. This is taken on as both concrete spatial conditions and abstract mental constraints,

presumed existing in contemporary neighborhood assemblies. Beginning with the spatial configuration's literal presence, the essay next stretches into its figurative dimensions, symbolism and metaphoric interpretations, associating it with the modern residential design ideal's generation of dividing conditions in/between neighborhoods.

The topic was assigned as preliminary analytic exercise in an undergraduate architectural design studio themed around intersections of neighborhood regeneration and public realm space. Unlike the standard setting [where each student works on an individual project], this studio is in essence collaborative and formally participatory. The main studio project after a short exercise always deals with a real client sponsoring a project. Students work in teams, intendedly not fixated on making grand designs or engaging default subjects, seen as being characteristic of normative architectural pedagogies. Challenges of the exercise, including the mundaneness of cul-de-sac layouts to begin with, aimed at developing critical abilities in *seeing* better and analyzing subtle environmental nuances in neighborhood settings. Investigations at large must be alluding to all other, *cul-de-sac-like* roadblock conditions that have left many cities with spatially-interrupted and socially-disconnected neighborhood fabrics.

Design-research goals of the exercise were both didactic and aspirational, requiring additional holistic (re)searching on ideas for rescuing urban middles from general dead-end mews. A premise was that cul-de-sacked situations are often leaving urban fabrics hemmed in on all sides, and left with not too many choices for breaking away. Trapped in the space and time, many neighborhoods are now facing myriad issues as a result of many causes, mainly, racial inequality, quality-of-life deprivation, and other lacks in accommodating diversity, walkability challenges, and the list going on. Understanding the conditions benefits from experimental processes and, eventually, not-one-size-fit-all recipes that can mix miscellaneous ingredients with protean tenacities for positive change. While acknowledging that design alone may feel short in undoing the wrongs (often, broader-than-design past political decisions and actions resulted from disinvestments in neighborhoods), if mixed with correct policies, reimagining new public realms are still possible. Approaches must help in opening up, internally reconnecting, and eventually healing neighborhood fabric.

From these introductions, the essay here twigs into two distinct parts: Exploration and Extrapolation. Explorations focus on the past and present of cul-de-sacs, looking at historic and global equals, likes or dislikes, and how patterns came to be. Extrapolations analyze and compare, seeking knowledge on theoretical ways of adapting localized public spaces for being indicative of porosity, dimensionality, interconnectivity, identity, spatial quality, etc.

Figure 2. Top: The town of Radburn, which is frequently cited as an early contemporary example, is where the layout became basis for modern planning. [Left] Original garden homes included cul-de-sacs with adjacent walkable green spaces. Image Credit: City Housing Corporation. Source: Historic New England.[3] [Middle] The Radburn Superblock. Drawing Credit: Clarence Stein, Henry Wright, and Marjorie Cautley. [Right] Plan interpretation of the Radburn model. Drawing Credit: Colin Buchanan (1963, 69). Bottom: Concocted *sacked* conditions facing each other and blocking the streets grid in St. Louis, MO. Image Credit: Lindsay Toler. Source: www.riverfronttimes.com.[4]

EXPLORATION

From French meaning bottom-of-bag, contemporary cul-de-sac has become a major urban sprawl configuration and common spatial indicator of urbanization growth in the 20th century. The diverging, looped or circular no-through road patterns break standard open street grid structures, chunking built fabrics into isolated compartmentalization with introverted pathway networks. In the United States, the condition has contributed to auto-centric superblock territorializations, sparsity of habitations and single-use residential zoning. (Figure 2). Also tied with a century of suburbia planning, the typology symbolizes not only modern city growth, but also desirable living styles based on seclusion, privacy, comfort, and fear of strangers. The scheme, however, is widely debated amongst academics and planning professional from manifold standpoints, diverging on such issues as permeability, walkability, socio-spatial connectivity, travel behavior, traffic safety, cost, triple bottom line of sustainability, housing preference, and criminological evidence. The scheme today faces increasing backlash regarding negative socio-environmental impacts on climate change, material and energy consumption, and public health challenges. Despite existing criticisms, the lattice-shape neighborhoods dotted

with cul-de-sacs remain popular as prime real-state location options for developers, realtors, and homebuyers.

Earlier studies characterized cul-de-sacs' positive and protective qualities as off-stage spaces with capacities such as constructive neighboring behaviors and relational change, sheltering from exposure to and access by outsiders, allowing and encouraging localize surveillance of incoming visitors, and providing privacy resulting in freedom (Seaton 1980; Ittelson, Proshansky, Rivlin 1970; Perry 1970). Seaton (1980) reports that veiled dwellings foster casual, carefree, and idiosyncratic behaviors, drawing on dwellers themselves self-reporting senses of wellbeing. Common in these early studies is a protectionist sentiment based of fear and the layout's success in the avoidance of the other. Conversely, Mayo's (1979) investigation challenges any affirmation of positive social atmospheres, reporting inconsequential difference in neighboring participation between the cul-de-sac, linear, and curvilinear street forms. In total contrast, Charmes (2010) views single-use, inward-focused residential enclaves as mono-functional pods. Similar to common-interest developments in homeowner associations and gated communities, the layout is considered minimizing unplanned social encounters, resulting in socio-spatial segregation and loss of public realm.

Recent studies disapprove the layout by making stronger arguments for grid streets (Morrow-Jones, Irwin, and Roe 2004; Duany, Plater-Zyberk and Speck 2000), while drawing on limits of cul-de-sacs as inadequate solutions for community development (Langdon 1989). New Urbanists as main opponents argue for interconnected grids, criticizing the partly-blocked streets as reason for more driving, causing lessened pedestrian experience, plummeting interconnectivity, human interaction, and spontaneous social exchange. There still are some recent studies that focus on cul-de-sac's reassuring affordances for family life and as children play spaces (Othman and Said 2012), and consumer preference alignments for lower-density suburban living in comparison to neo-traditional, New-Urbanist neighborhoods (Morrow-Jones, Irwin, and Roe 2004). Other studies meet halfway on strengths and weaknesses, acknowledging the layout's safe and quiet attributes, but with changes and reconsiderations for better future neighborhood development (Spivak 2008; Southworth and Ben-Joseph 2004; Cozens and Hillier 2008; Southworth & Parthasarathy 1996). Drawing on variations, Hochschild's (2015) quasi-experimental study shows not all behaving the same way, comparing typological differences regarding residential social cohesion, street design, and neighborly bond relationships. The study finds highest attitudinal and behavioral cohesion levels in bulb cul-de-sacs, followed by dead-ends, followed by through streets.

Alongside a contemporary discourse summary, historical comparisons on equivalent prevalence and differences are beneficial. The historic dead-end layouts of introvert semi-private streets existed universally long before the 20th century, some to-date visible or traceable in traditional city fabrics.[5] However, despite formal resemblances, outcomes were different. Before cars came along, pedestrian no-through streets were plausible, productive and conducive of social life. Old city fabrics were laid as tightly interconnected systems to enable pedestrian and animal flows. By current neighborhood sustainability standards, the historic layouts could be viewed as being instituted based on considerations of smart location, walkability, and energy efficiency, with proximity of pedestrian citizens and later streetcar networks to trades, markets, and mingling spaces. Early cul-de-sacs were often formed due to practical reasons like defense purposes in antiquity (Alberti 1966, 75) or keeping traffic away in the 18th century London (Kostoff 1992, 193). Well noticeable on Richard Horwood's 1792-99 map of London, streets such as Downing were typical residential cul-de-sacs. This English residential planning scheme was later imitated in other cities such as in the 19th-century private street formations of St. Louis, MO, USA. Buttressed by an absence in municipal zoning and private ownership of public spaces, the cul-de-sac conditions were formed to keep away the streetcar, switch tracks, and any unpleasant building encroachments. (193-194). With some private street place traces remaining in the city until today, the spatial displays of a cul-de-*sacked* city have been expanding since the 1970s. The city core has accumulated new kinds with added physical barriers (bollards, planters, objects, etc) put on public residential street ends (Figure 2: Bottom). As Grone (2019) expressively calls, this peculiar city of bollards today is broken by hundreds of interrupted closed roads due to a 1980s' obsession with blocking and taming traffic, hoping to increase neighborhood control, safety, and engagement.[6]

Historic configurations were not limited to residential quarters; comparable qualities formed in dense non-residential urban public settings. Bounded by Giorgio Vasari's 16th-century Medici offices, the open space of Florence's Piazza degli Uffizi is one such example, a space interchangeably referred to as piazza, street, and cul-de-sac. Fleming's (2006) research shows how the unusual physical and social characteristics of this vague-to-describe architectural space manifests theatrical and dramatic conventions. Emphasizing the presence of people, the space recalls both a "theater" and a "stage," assets based on which the cul-de-sac has successfully served as a thriving social space fostering user interaction. (701). Not a true interior courtyard, yet, perceived as one, Uffizi's U-shaped space has a short-end wall that is containing substantially greater details. Satkowski's reflections (1993) draw on how the narrow space shaped by building wings keeps with visual features of continuing facades to reiterate a street-like urban connector even though broken at end, much similar to a cul-de-sac (35). Regardless of elusiveness in characterizations, Uffizi at its essence was designed from the perspective of pedestrian experience, of how Florence citizens and visitors would best move through, as Fleming reminded, to play active roles as both spectators and actors.

EXTRAPOLATION

This part sets out to reflect on the educational assignation of the exercise in design studio. Focused on neighborhood regeneration and public realm, the studio project centers on public spaces, seen as key enablers whose lacks conversely disabling neighborhood vitality and depleting sociability between buildings. At-large themes revolve around wicked problems of disenfranchised neighborhoods shaped by uneven developments. Design-research analysis involved straight applications of tested methods (Gehl and Svarre 2013; Gehl 2011; Whyte 1980; Appleyard 1981; Appleyard and Lintell 1972). Following in pioneer urbanists' footsteps, students practiced direct, social life and public space, observation and documentation to find baseline understandings. Observing outdoor environments and publicly-available spaces provided double benefits, additionally allowing a more comfortable physical distancing, therefore, healthier learning spaces during the times of the COVID-19 pandemic.

This portion of the writing draws on the applied pedagogies and extracted lessons relevant to possibilities, limits, and trajectories of didactic investigations as such. The exercise in its goals was indicated not as a redesign of cul-de-sacs, but focusing on ways of seeing, understanding, and measuring their social and spatial attributes in the syntax of nondescript neighborhoods. The exercise creation process earlier had alluded to architectural education's needs for adjusting its default instructive settings as well as default subjects at the center of its pedagogies.[7] Not aligning with the archaic studio model where each student is working competitively on an individual project, the work setting of this particular studio is defined with teams and the entire class working together as one large group. The exercise was engaged as a nondefault experimentation with mundane space genres around us, such as the cul-de-sac, intending to present students, coming ready to studio to just design, with challenges instead forcing to rethink banalities. As a way to disturb the waters of a standard/normative studio subject selection, this was aiming at focusing novice learner attentions on alert observations, deliberate seeing and thicker interpretations. Key learning target was ability in studying subtler nuances and invisible spatial domains of ordinary neighborhoods. The anticipation was to help internalize the how-to, that the methodological knowing achieved through the exercise be then contributing to the overall studio project's undertaking. Roughly, the short exercise acted as preamble in attuning learner awareness in holistically recognizing and accurately analyzing contemporary neighborhood confines.

The exercise turned to *Making Architecture Through Being Human* (Plowright 2019) for a working methodology in teaching analysis literacy, as Plowright puts, "seeing in thinking and making in thinking (4)."[8] In addition to the readings, discussions, and applications, the process profited from hands-on virtual workshop and review sessions conducted by the author via

Zoom. The initial session introduced the Socio-Spatial Analysis (SSA) method as a tool, first, practiced with case-study applications (Figure 3) and, later, for the cul-de-sac exercise (Figure 4). The method highlighted the importance of a systematic analysis methodically guiding informed diagrammatic synthesis. When paralleled and combined with students' earlier Whyte-and-Gehl-style observations on how people actually use spaces in reality, the SSA method exposed an interesting problem: occasionally, expectations based on the SSA method and the previously-observed realities did not match. A diagnosis could assume that the mismatch is due to volatile effects of the issue of 'culture' in the context, itself being a social construct. It was concluded that, in addition to the SSA method, other tools may be needed to draw on cultural differences in actual uses of the environment. Although complex and difficult to measure and harder to diagram, culture could have been analyzed in the exercise with a relevant method in tangent with the SSA.

Despite culminating at its didactic context, the exercise preserves ongoing and future investigative potentials. Grounded in interpretations of cities and neighborhoods today more and more becoming cul-de-sacs within cul-de-sacs, futures ideas will draw on stitching back urban fabrics that have been separated not only by physical blockades such as highways, railroads, and speedways, but also by lesser-discernable socio-spatial barriers based on race, gender, class, etc. This is not a surprising insight; both past environmental and man-made factors have been leading the causes to many such disparities by design. Dejectedly more often they are those communities on the social, economic and environmental margins that tend to be on the wrong sides of cities' cul-de-*sacked* ends. Inopportunely, there are no quick fixes when it comes to rethinking these real and engrained roadblock conditions and for renewing those urban fabrics. Addressing cul-de-sac issues both in the literal/physical and figurative/socio-spatial senses can use ideas such as dimensionality, directionality, permeability, connectedness, journey, identity, and spatial quality in the environment, many of which elaborated by Plowright (2019). Dimensionality, for example, is seen beyond simple and artificially-narrowed measurements of length, width, and depth, looking at human environment complexities through many other psychological, social, and cultural knowledge dimensions (76-81). Overall, elegant solutions will benefit from a holistic start, by looking from distance while extrapolating with future-oriented actions.[9]

Converging with speculative projections on mending current threads of neighborhoods, a future extension of the exercise can begin with a scenario using metaphors such as textile fabrics' warps and wefts.[10] The scenario based on extrapolation may regard urban fabrics as representative or symbolic of a series of complex thread combinations with lengthwise warps and crosswise wefts. In interpretation, neighborhood repairments may use akin to cumbersome handiworks at
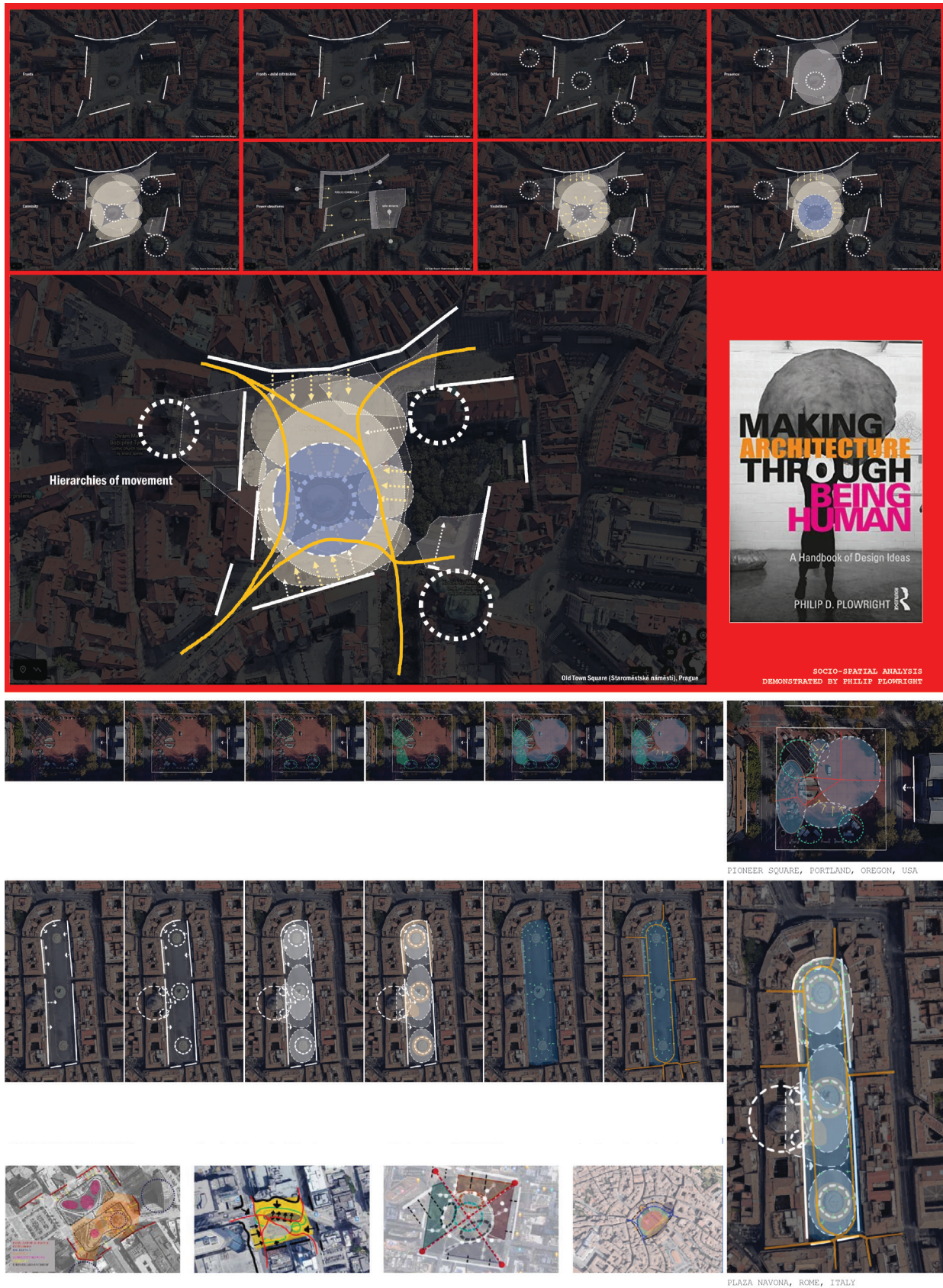
Figure 3. Case-study replications based on Plowright's Socio-Spatial Analysis (SSA) model (shown on top) in course taught by author.
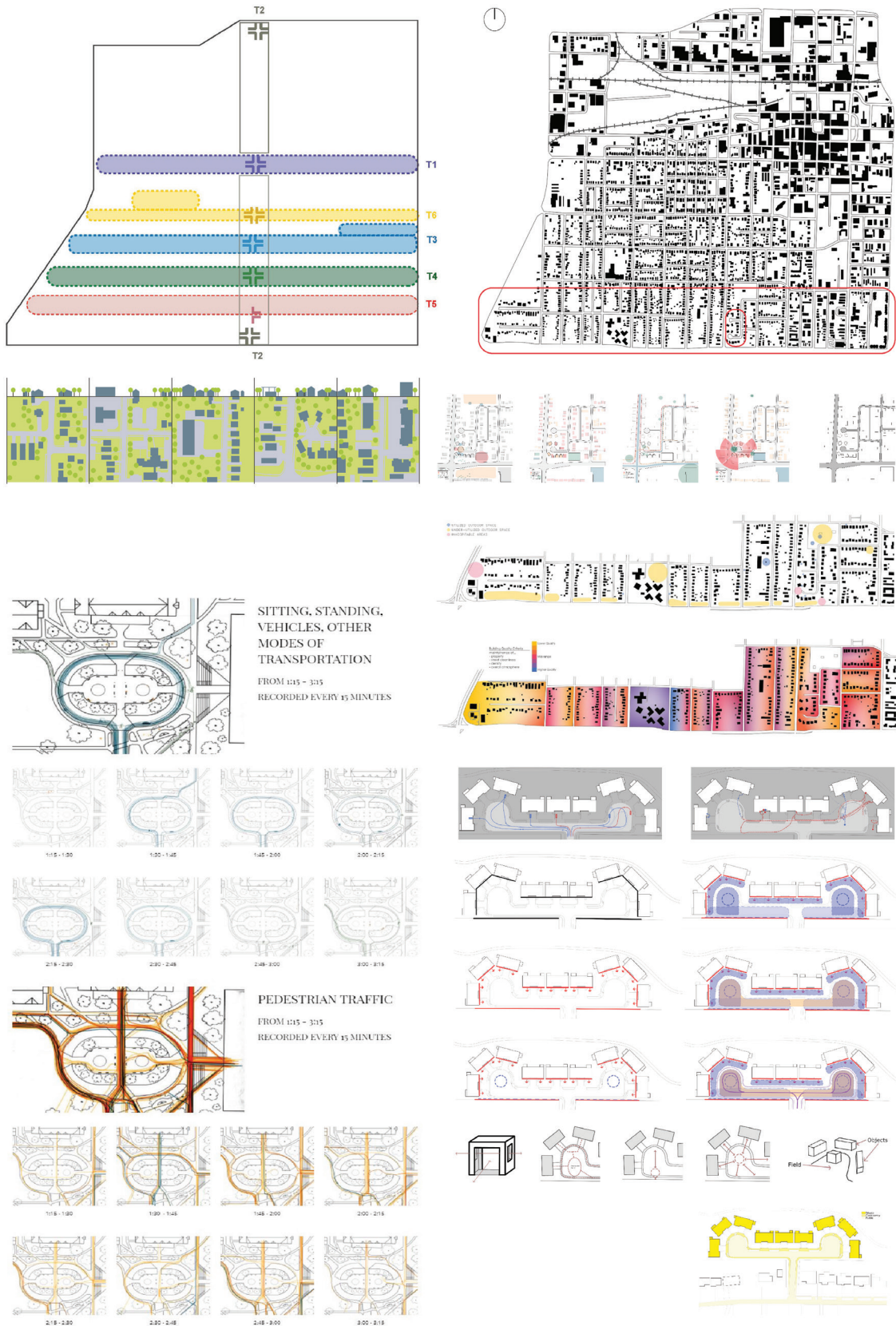
Figure 4. Snippets of design-research upshots from the exercise in course taught by author.

warp-and-weft overlap connections, with tasks induced from effective crossings of both *formal* and *socio-spatial* knowledge. The warps can represent the unwavering, rather static elements in the urbanization's weaving processes, analogous to existing physical qualities running lengthwise. The wefts/ woofs can connote the dynamic dimensionalities and other made-to-order socio-spatial recipes to be plugged in over time, inserted over, under, amid, etc, all running across existing warp threads. Mending the warps and wefts requires seeing and acting effectively likewise upon any cul-de-*sacked* conditions with new dimensionalities. Answers may be recipelike, original place recipes using varied and mixed ingredients in the remaking of public realm spaces and renewing social life. For a future cul-de-sac exercise, textile weave variations using fascinating 2d weaving and 3d-knitted structures in fabric patterns can make a seamless metaphor. Referencing unique ways in which warps and wefts can be interlaced can engender in cities new qualities of softness, comfort, depth, resilience, tear strength, and drape, to name a few.

FINAL THOUGHTS
Formulating meaningful and relevant assignment narratives right for a student group remains a wicked problem of pedagogy. At times like these, when significant changes are already happening in the environments around us, this intricate task becomes ever more challenging. On pedagogy, this essay ends with questions to direct actions moving forward. How should project excerpts be retuned now to become more expressive of concrete issues faced by societies while making sense to students (for instance, connecting, resonating, and being appealing to those early-year-in-education learners)? Instead of designed to be daunting, how can design problem excerpts and methods engaged be rather inspiring? Particularly, in the case of novice learners, how can correct dozes of the problems likewise satisfy desires for abstract explorations and speculative conceptualizations? With this in mind, how best to balance intangible games of exploration with important demands of addressing issues of significance?

There are adequate spaces in the education for both hard questions and fantasizing a world better than is via speculation and theoretical investigation. Yet, a question at stake might be on correct curricular balance that can, intentionally and transparently, at various stages, reinforce one over the other. Bypassing the essential, but, hard and not easily solvable societal problems, to say, avoiding messiest wicked problems as topics not only diminishes the depth of the education's content, but also its societal relevance. It may just be as good or even better to formulate project descriptions that ask for and focus on learning deeper seeing, listening, and critical understanding,[11] by not rushing for an ending design object. The cul-de-sac exercise also strived for deep scrutinization: attuning and cultivating nuanced environmental sensitivities by placing learners in interstitial spaces between abstract thinking and concrete demands, seeking balanced doses of both in one assignment formulation.

Deliberate efforts in clarifying the imports and methodologies of design-research early on can help enhance prospects of critical investigations. Architecture education has shaped a standard learner type with normative skills and behaviors. With reasons and consequences varying from place to place and on global scales, general traits may relate to the ways of bureaucratization, of: default settings, design topics, standardized assessment systems, overemphasis on historical conventions (mainly Eurocentric), and exaggerated conceited assumptions instigating in learners a world revolving around 'Design.' Certainly, there always are exceptions, or exceptional learners that know, behave, and act otherwise. However, a majority is observed shying away from pithy content where logical argumentation processes are more essential. Evidence is seen when asked for thoughtful assimilation in inquiry-driven design investigations that must extend and dissect design problems down from the surface. Part of the issue can blame an overreliance on digital technologies (causing for some a shorter attention span) and an overall failing of societies holding anti-science spirits in a post-truth era. Nevertheless, at least from distance, these same issues may seem less of a challenge in other, more positivist-driven disciplines such as sciences and engineering where reading, rational inquiry, and academic writing is more a day-to-day part of their educational process.

Despite obvious importance, design-research can appear confusing and even sometimes viewed as unnecessary or undesirable hassle by students, predominantly, at novice levels. This can leave learners resistant to deeper investigations before/for design formulations. At times, standard learners are observed looking jittery and impatient in getting quicker to the normative digital spinning of an object-design, or worst, getting over with the object design, altogether. Pedagogical efforts converging more on the cognition sides of the design process early enough at the undergraduate level can help in a more effective tilling of design-research aptitudes. Those may encompass investigative components linked both directly with the act of design (research embedded in the process of design), and indirectly, as distinct inquiries, both developing means and channels to discover new knowledge and insights. More questions than answers are ensuing. How can assignment narratives and micro-level instructional activities be designed in ways to perform better in coaching knowledge-based design processes and creating significant learning experiences? What new and progressive pedagogical models are out there for teaching the underlying complexities of enquiry in design? How can educators discover, practice, and internalize relevant operative tools and strategies for a generation of students raised in the era of the digital and social media, with shorter attention spans and vulnerabilities to post-truth conditions?

CUL-DE-SAC WITHIN CUL-DE-SAC

LOCAL
REGION
NATION
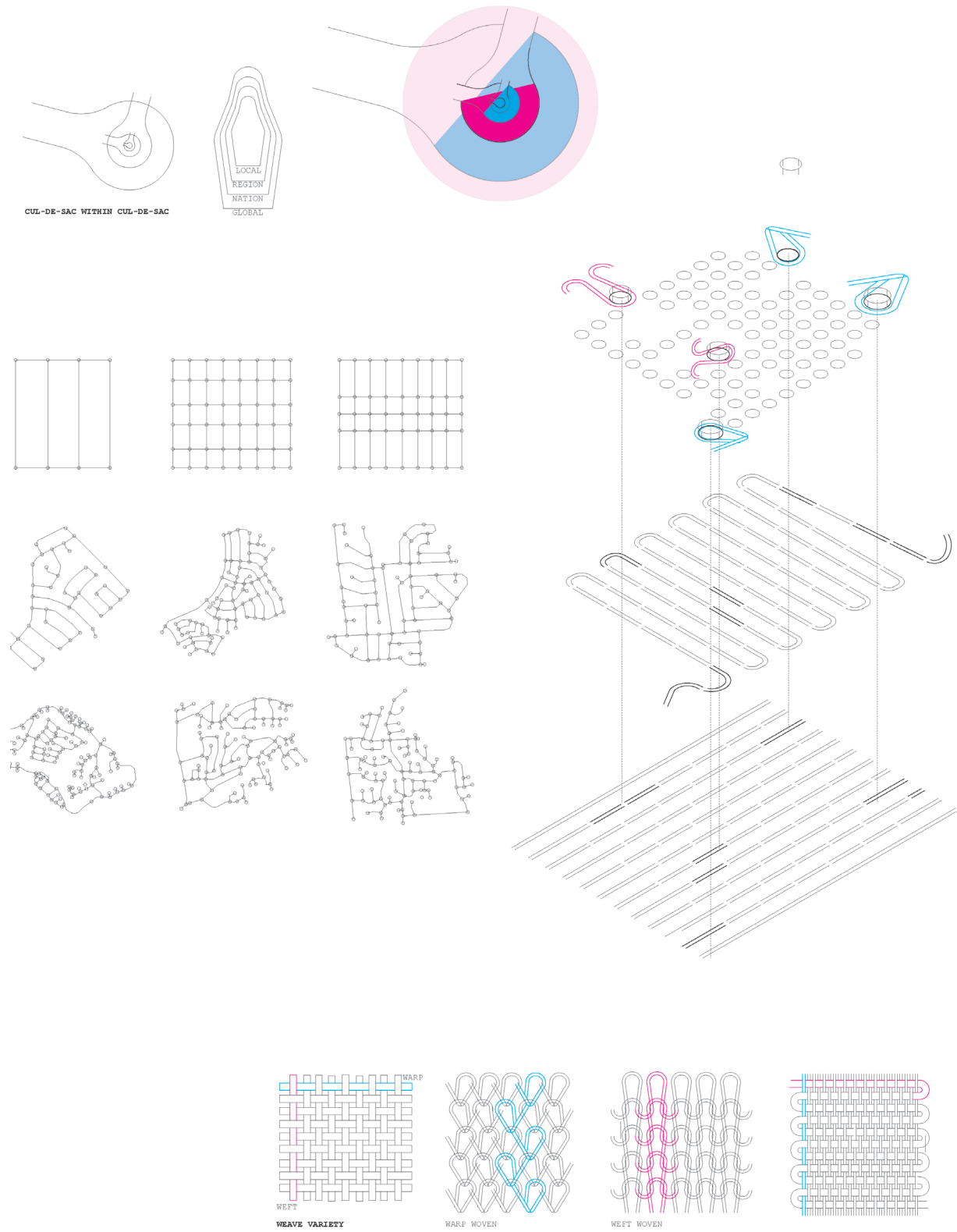GLOBAL

WEAVE VARIETY

WARP WOVEN

WEFT WOVEN

WARP

WEFT

Figure 5. Speculative projections on mending neighborhood threads. Image credit: author

Reflections on the essay's didactic context produce ideas not limited to education, extending to future livelihood of neighborhoods. The exercise process was lesser concerned with disputes over history or effectiveness [e.g. of street grid vs cul-de-sacs] or even so with finding designed ways to fully unravel cul-de-sacked conditions. Instead, the exercise was effective pedagogically and theoretically, opening up slivers for discourse on sociability and cross-disciplinary knowing when rethinking standard neighborhoods. In this COVID-era, Duany suggests how future residential quarters must include what he frames as 'compounds' rather than idiosyncratic dwellings.[12]

Can current spaces of/around cul-de-sacs including driveways and garages become a new life-blood of neighborly public realm spaces? Exercise upshots show how no one-size-fits-all approach may satisfy neighborhood reconfigurations, and that custom-fit localized dimensionalities can best interlace in to mark positive impacts. Outcomes emphasize cities as complex composites of both constructed things and organic beings, often experienced in tandem, but altogether still fragmentarily and at different scales. Therefore, city entities are needing more enablers in connecting scales and negotiating relationships, all from the most micro, to the middle, to the most macro, and back. In addition to the concept of scale, typological variations can be stirred by recipelike public-realm interventions in tackling missing middle issues of/in standard neighborhoods. A remake is possible with woven uniqueness into/with the warp and weft of urban fabrics. Miscellaneous ingredient mixings can hold thicker, and more diverse and variedly-intertwined social spaces. For these all to then offer possibilities for more improv neighborly ways of being, the urban middles must become porous spaces with places where "the stamp of the definitive is avoided," as Benjamin and Lacis (1925) had put. These are places where passions for improvisation can reside, demanding "the space and opportunity be preserved at any price" (165–166). All too essential for cities success, neighborhoods must now become yet again suitable, delightful and memorable for every and all.

ENDNOTES

1.   The two images are retrieved from: https://www.washingtonpost.com/photography/2020/06/19/these-photos-show-enduring-charm-greeces-outdoor-movie-theaters/?itid=hp_visual-stories-8-12_no-name%3Ahomepage%2Fstory-ans.

2.   See: Gehl Architects' report on Public Space & Public Life during COVID-19, retrieved from: https://issuu.com/gehlarchitects/docs/public_space_and_public_life_during_covid-19. Mobilizing swiftly after March 13 to reflect on the lockdown effects, the research team conducted eye-level lived-experience observation in four Danish cities and gathered thick data (different from the big data collected by Google and Apple). The goal was to understand how people use the city when merely the most essential and basic functions in the city are open. The study made comparisons between new data and previously completed studies on those same cities before the pandemic. They found how downtowns are largely deserted, but local meeting places are further thriving. The study likewise detected upsurges in user quantities spending time, exercising and playing in public spaces and larger percentage of kids, elderly, and women, compared to men. Based on their findings, Gehl researchers formulated two big questions to guide their future work: "will things ever go back to the way they were? Are there things that we are doing now, that will become part of the new normal?" They speculated no complete return to the ways of the past and predicated times of witnessing new trends in public spaces. What was predicated long before was accelerated by the pandemic; it had been foreseeable, according to the researchers, that downtowns and retail spaces could lose standing with more and more people getting used to online shopping and working from home. Although not impossible, Gehl researchers think that attracting people back to these areas will be a lot more difficult in the post-pandemic world, demanding a lot more innovation in recreating and presenting further exceptional experiences as draws.

3.   The top left image is retrieved from: https://www.historicnewengland.org/explore/collections-access/capobject/?refd=EP001.12.002.005.188. Conceived in the 1920s on former spinach farm land in Fair Lawn, New Jersey, this famous planned community became an early US sprawl development inspired by England's Garden City movement. Planned by Clarence Stein, Henry Wright, and Marjorie Cautley, the original housing enclave concept was meant to become America's first planned automobile-oriented suburb (Stein, 1957), be the first to help people live with the car. Houses were turned around: kitchens were facing cul-de-sacs, and living rooms and porches facing parks or paths to them. Superblocks were centered around parklands, detached from vehicle and pedestrian zones and traffics were relegated to periphery. Specialized road width hierarchies were amongst other features. According to Hampson and Taylor (2020), the town was planned based on idealism, originally to be a walkable and multi-use enclave with housing diversities, and exceptional recreational and social programs, safety for kids and fun for others. However, the outcomes did not turn out as the planners expected; with Great Depression came the housing market crash and eventually the planning company's bankruptcy, bringing to halt Radburn's full realization. See video for additional insights on the scheme: https://www.radburn.org/in-the-beginningthe-radburn-association.html#.

4.   The bottom image is retrieved from: https://www.riverfronttimes.com/newsblog/2014/04/10/why-st-louis-should-stop-turning-its-street-grid-into-cul-de-sacs-video.

5.   Historic cul-de-sac configurations were not just present in the Western world; many organically-shaped non-Western traditional cities exemplified similar close-end road layouts. Persian cities, for example, had those integrated as key neighborhood components. City fabrics marked orderly and logical hierarchies of public to semi-public to semi-private paths culminating at the end at the transitional thresholds into introverted and courtyard-style private homes. This same logic had connected the most private pedestrian paths, called *bombast* that is the equivalent to a dead-end cul-de-sac, to public streets called *khiaban* that is equivalent to street. Semi-private alleyways were called *gozar* and semi-public bazaar paths were called *raste*. The term *bombast* is the combination of the two words 'bon' [meaning 'end'] and ['bast' meaning 'closed']. Private cul-de-sac endings often included hexagonal shape spaces called *hashti* that is equivalent to the bulb of a contemporary cul-de-sac.

6.   See news article: Grone, Jack. "The Curious Tale of the St. Louis Street Barriers." *CITYLAB* (2019). Retrieved from: https://www.bloomberg.com/news/articles/2019-04-25/the-curious-tale-of-the-st-louis-street-barriers. Date Accessed: August 14, 2020.

7.   Neveu (2020) writes in the introduction to the recent issue of *JAE* that people have choices on how to see the world, but often there are the obvious things that are not viewed critically or at all, arguing that a good [architecture] education can adjust this default setting by developing abilities for seeing from other perspectives and growing empathy (161). See: JAE 74:2 Issue PDF at https://doi.org/10.1080/10464883.2020.1790960.

8.   The text clarifies how thinking processes used to understand can be similar processes that can be used to design the environment. These processes are embodied; how humans think is inseparable from senses and bodily experiences. (4-5). The book also recalls the mysteriousness of introducing architectural design to students, emphasizing the human self and engagement with the environment as the place to start. Generally, the text offers a broad reference to 51 concepts, notions, ideas, and actions useful for thinking about and interpretations of the human environments.

9.   Extrapolations are extensions of logic, as Plowright (2019) defines, based on the human ability to extend thoughts into a not-yet-existing future and adjust actions based on assumption of current trends continuing (196). The process starts with observation, to understand what we have and know, and then asking where things would go through a chain of logical assumptions such as asking "what might be the effect if …?" (198).

10. The use of the metaphor describing the physical forms of towns and cities as 'fabrics' in archi-tecture and design is no novelty. Remarks here highlight the relevance of weaving social life into most mundane city forms. More commonplace uses of the metaphor such as Lynch's (1954) only refer to formal qualities of the grain patterns of streets, buildings, blocks, and open spaces and their relative sizes (coarse and farther apart or small and closely knit). The intend here is an added focus on the socio-spatial connectivity of the fabrics instead of the formal or the objet d'art. This is looking closer at the social sciences of the complexities of everyday human and environmental experiences.

11. After a day of studio review of architecture students' neighborhood reimagining designs, a sociologist colleague of mine emailed me with a critical note, encouraging students to reflect on how "all social space is raced, classed, and gendered." My sociologist colleague, Dr. David Derossett wrote to me: "… a kind of general overarching observation that I'd encourage your students to reflect on [is that] … all social space is raced, classed, and gendered. …social space both reflects and reproduces dynamics and inequalities that exist in the broader social system. People of color, women, and the poor, all marginalized social groups, navigate and utilize social space, particularly urban social space, very differently than whites, men, and middle class people do. For example, there are case studies that refer to women learning to make a wider arc when walking on an urban street at night as they pass unlit open alleys. It's a troubling reality of gendered violence and something that rarely enters the mind of the average man walking

the same space. Much of urban space, particularly downtown business districts and the neighborhoods nearby them, are not really created to meet the needs of women and children. The thing that might be useful for your students, then, is thinking of ways to develop proposals that might more intentionally expand opportunities for uses that are more inclusive by intersecting social dimensions (race, class, gender, sexuality, etc.)."

12. This premise is founded on Andrés Duany's (the co-founder of DPZ CoDesign) recent ideas presented in a CNU webinar. Speculating that the post-pandemic world is probably here to stay longer than was assumed, he raises the following issues all now in jeopardy: density, public transit, open community (the idea of walking in to places any time), community engagement (bringing in hundreds of people in format of charrettes), face-to-face retail, Jane Jacob's famous festival of the sidewalk, uses of social third places, and effective governance. Drawing on needs for change, the time is seen challenging, but at the same time stimulating, not only for words and policies, but also for design with wonderful physical implications. According to him, it is time again for making communities "make more sense," not only with healthy spaces full of sunlight, fresh air, and cross ventilation, but also by including more community-oriented living spaces in our neighborhoods. He calls for them to be less about single dwellings, and more about 'compounds' or rather complex arrangement clusters that can also act in the absence of effective top-down governments. Beyond single houses, and even one neighborhood or city, the compounds should recreate what has been long missing between the dwellings: a missing middle. That includes neighborly common spaces shared between neighbors, and public realm spaces in and near the private residences. Towards remaking compounds instead of dwellings, with more room, flexibility, and adaptability, Duany draws on the effectiveness of ancillary house components as the COVID house of the future, for instance. With this, whatever was put in the back in the past needs to be now move to and put in the front. Examples are conversions of garages to admit guests or convertible ones also used as work places, as, based on Duany's ideas, the new life of the residences, driveways, terraces, and roof gardens may become the new plazas.

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