

# Betweenness as Possibility

Tweaking the focus on *terrains vagues* from objects to qualities

stare tra  
vaghezza  
centralità  
emersione  
**betweenness**  
**vagueness**  
**centrality**  
**emergence**

La letteratura anglofona in pianificazione e progettazione urbana tratta la qualità dello 'stare tra' con significati distinti in ambiti di ricerca specifici. Lo studio qualitativo della *unknown city* ed il suo carattere esperienziale usa l'attributo *in-between* con riferimento a luoghi definiti come *terrains vagues*, spazi indeterminati, o spazi di possibilità. Inoltre, l'analisi quantitativa della forma urbana parla di *betweenness* come misura di centralità in modelli reticolari di spazi determinati. La prima definizione di 'stare tra' riguarda soltanto alcuni luoghi, la seconda comprende qualsiasi nodo in una rete. La prima coinvolge le percezioni sociali della liminalità di un luogo. La seconda risulta dalla misurazione dello spazio attraverso modelli matematici. A partire dalle nozioni di *terrains vagues* di Sola Morales e di *campo di centri* di Christopher Alexander, questo articolo imbastisce un quadro concettuale per investigare sul piano qualitativo lo stare tra come localizzazione spaziale percepita associata a vaghezza e centralità, intese come qualità che caratterizzano tutto lo spazio urbano in diverso grado. Casi selezionati da rilevazioni in 67 siti a Beirut, Libano, forniscono l'evidenza empirica per una tipologia di fattori a descrizione delle tre qualità. Queste descrizioni costituiscono uno schema preliminare per una definizione della qualità dello 'stare tra' come motore morfologico di trasformazione, dispiegamento o emersione della forma urbana, verso ulteriori indagini su configurazioni territoriali a diverse scale. A sua volta, questa definizione offre uno sbocco per collegare le osservazioni sui *terrains vagues* con lo studio di condizioni di vaghezza, e di centralità vs. liminalità, in tutto lo spazio urbano.

The quality of betweenness features in the anglophone urban planning and design literature in specific research areas with distinct meanings. Qualitative scholarship on the unknown city and its experiential character uses the attribute *in-between* with regard to places defined as *terrains vagues*, indeterminate spaces, or spaces of possibility. Meanwhile, quantitative scholarship analysing urban form refers to betweenness as a measure of centrality in network models of determinate spaces. The first definition of betweenness is exclusive to particular places, the second encompasses any node of a network. The first engages social perceptions of the liminality of a place. The second relies on spatial measures based on mathematical modelling. Building on Solà Morales' notion of *terrains vagues* and Christopher Alexander's notion of *field of centres*, this article sketches a conceptual framework for qualitative inquiry of betweenness as a perceived spatial location associated with vagueness and centrality, understood as qualities possibly characterizing the whole of urban space to different degrees. Selected cases from observations in 67 sites in Beirut, Lebanon, provide empirical evidence for a typology of factors describing the three qualities. These descriptions constitute a preliminary outline towards a definition of the quality of betweenness as a morphological driver of transformation, unfolding or emergence, of urban form, to be further investigated in territorial configurations at different scales. In turn, this definition provides some leeway to connect insights from the literature on *terrains vagues* with the study of conditions of vagueness, and of centrality vs. liminality, over urban space as a whole.

**Guadagnoli, Giulia<sup>1</sup>**

<sup>1</sup> Critical Planning and Design Lab, Department of Architecture, University of Florence, Florence, Italy.  
<https://orcid.org/0000-0002-4954-3327>  
[giulia.guadagnoli@unifi.it](mailto:giulia.guadagnoli@unifi.it)

Citation: Guadagnoli, G. (2026). "Betweenness as Possibility", UOU scientific journal #11, 66-77.

ISSN: 2697-1518. <https://doi.org/10.14198/UOU.2026.11.08>  
This document is under a Creative Commons Attribution 4.0 International license (CC BY 4.0)

Article Received: 01/03/2026  
Received in revised form: 13/04/2026  
Accepted: 06/05/2026



## BETWEENNESS AS POSSIBILITY: AN INTRODUCTION

Focusing on qualities in the study of urban form, regardless of their attribution to clearly identifiable geographical objects, supports a broader and stratified understanding of their incidence. Moreover, it supports an explicit examination of the co-existence or association between distinct qualities, regardless of their actual attribution to the same single object. This article looks at betweenness, and its relationship to vagueness and centrality, considering their perceived incidence in urban space as a whole, rather than as exclusive attributes of particular places. This interpretation constitutes an original stance, compared to the intended meanings of *betweenness*, *vagueness* and *centrality* in specific research areas in the anglophone urban planning and design literature.

Qualitative scholarship engages the attribute 'in-between' in inquiries on the unknown city and its experiential character (Borden et al., 2001). In this context, this attribute is used to describe perceptions of marginality, peripherality and liminality regarding urban places named – among other definitions - *terrains vagues* (Solà Morales, 1995). Partially translatable as grounds characterized by vagueness, aka indeterminate spaces (Groth, Corijn, 2005; Rosa, Panayotopoulos-Tsiros, 2024), the term *terrains vagues* often refers to places lying in an interstitial state, possibly a left-over or residual, spatial location. Moreover, beyond strictly locational attributes, the association of vagueness and liminality stands on their interpretation as social perceptions, evoking an implicit binary associating centrality and the obviousness of determinate spaces. Indeed, the referenced scholarship puts one side of such binary interpretations into question, reclaiming the protagonism of *terrains vagues* in expressing

and confronting contemporary urbanization challenges (Groth, Corijn, 2005; Andres, 2013; Gandy, 2013; Tonkiss, 2013; Kavmasinou, Roberts, 2014; Silva, 2024). At the same time, betweenness stands as the defining attribute of particular places identified by vectorial objects (Kuhn 2012), and vagueness and obviousness remain confined to vectorial objects regarded as mutually exclusive. On the other hand, quantitative scholarship invested in the analysis of urban form refers to betweenness as a measure of centrality in models focused on mobility flows across determinate spaces. This measure assumes that any place enjoys a certain degree of centrality based on how many shortest paths between node pairs cross it (Freeman, 1977; Newman, 2005; Crucitti, Latora, Porta, 2006; Sevtsuk, Mekonnen, 2012; Serra, Hillier, 2019). In line with this article's standpoint, these definitions of betweenness and centrality encompass, to different degrees, any place featuring in a model. Nonetheless, their metrics-based understanding of the two qualities, grounded in mathematical models based on network science, considers them as objective locational attributes rather than social perceptions.

This article proposes a conceptual framework for qualitative inquiry of betweenness as a perceived spatial location and of its association with vagueness and centrality as perceived qualities of place. It defines betweenness as the quality of a place which is surrounded by, and possibly confined among, two or more places. This definition assumes that surrounding places exert a certain influence on the emergence of form in the place they surround. It also applies the notion of place to any possible scale, from the smallest to the largest (Tuan, 1975; Swyngedouw, 2004). Moreover, the inquiry defines vagueness as a social quality of place based on Solà Morales' (1995) stratified notion of *terrains vagues*, overlapping with cognate notions *spaces of possibility* or *differential spaces* (Harvey, 2012; Andres, 2013; Loi, 2024; see Schmid, 2022, p. 378, n.

228 for a recap on Henri Lefebvre's references to the concept behind these expressions). This definition bypasses misunderstandings associating *terrains vagues* to emptiness (Rosa, Panayotopoulos-Tsiros, 2024). Most important, it does not confine vagueness within particular places, but rather extends it to any place defined as a center of meaning (Tuan, 1975). Finally, the definition of centrality as a spatial quality of place refers to Christopher Alexander's notion of the field of centers, reflecting the progressive aggregation of centers into larger centers, or centers of higher intensity (Alexander, 2002). In this perspective, centrality unfolds as an emergent condition of intensity associated to betweenness depending on the relations among surrounding features<sup>1</sup>.

Selected cases from observations of 65 sites in Municipal Beirut, Lebanon, between 2010 and 2016, provide the empirical evidence to ground these conceptual definitions. In doing so, the proposed selection features a number of entries for a typology of user led physical installations or adaptations in open space, characterized by conditions of betweenness and vagueness. The typology highlights factors describing these two qualities. It also identifies three types of centrality based on the distinctive arrangements engendering betweenness: (a) 'joint', referred to places characterized by betweenness on a single bilateral connection; (b) 'junction', referred to places whose betweenness involves two or more distinct bilateral connections; and (c) 'hub', referred to places whose betweenness involves one multi-lateral connection where heterogenous factors converge. Meanwhile, factors of vagueness explain the conditions enabling the emergence of centrality from a situation of betweenness. In this sense, the typology justifies a conceptualization of betweenness-in-vagueness as a morphological driver of transformation, unfolding or emergence, of urban form, to be further investigated in territorial configurations at different scales.

## WALKING IN A CITY OF EXCEPTIONS: SERENDIPITY AND EXTENSIVITY IN THE COLLECTION OF EVIDENCE

Beirut, the field of this inquiry, has been portrayed as an example of permacrisis (Harb, 2025). Studies on urban governance in Beirut provide insightful examples on the notion of informality (Fawaz, 2016), in a country, Lebanon, which the International Monetary Fund has classified under the category of fragile and conflict-affected states (IMF, 2022). Furthermore, insider scholars describe Lebanon as an incapacitated state (Harb and others, 2025), where regulatory practice in urban planning takes exception as the rule (Krijnen, Fawaz, 2010; Fawaz, 2017), and the interplay of structural factors, urban planning failure and everyday coping mechanisms reproduces socio-spatial inequalities (Mady, 2025). Herewith, a combination of centralized governance and legislative paralysis maintained by sectarian power-sharing (Harb and Atallah, 2015; Chaaban and others, 2016) jeopardizes municipal regulation, oversight, law enforcement and maintenance of the built environment. As a result, everyday coping mechanisms meet with fragmented and contradictory municipal action.

This setting constitutes a fertile field for the study of vagueness as a condition for possibility and differentiation through the emergence of urban form. It also clearly calls for unglamorous interpretations of the implications of vagueness, highlighting both its opportunities and liabilities. As put by Mona Harb: "Indeed, the less a public space is planned and designed into an abstract space generating specific types of socio-spatial practices, the more it has the potential to be politically subversive – in the sense of having the possibility to become appropriated and claimed through spatial practices and experiences

in the Lefebvrian sense." (Harb, 2013, p.2). Through the cracks of fragmented municipal action, this possibility gives way to a swarm of overlapping, sometimes competing, spatial claims, on public space and beyond. The specific forms of allegiance and influence at play in each neighborhood either legitimize, merely tolerate or actively deny each claim, giving way to highly volatile spatial practices. Collecting evidence on these swarming everyday spatial practices required a combination of serendipitous and extensive survey.

Preliminary observations begun in 2010 as part of a newcomer attempt to get to know a seemingly unwalkable city through walking. It initially focused on the serendipitous discovery of pedestrian shortcuts through what were progressively revealed as widely permeable blocks. Later, these walks developed into opportunities for occasional encounters with urban practices (De Certeau, 1984), more specifically practices resulting into small scale user-led installations and adaptations of urban form. An initial occasional photographic documentation of the places emerging from such practices later developed in a more systematic survey. This twist came along in 2011, with the extensive walks done as part of the field work for the *Plan Vert de la Municipalité de*

*Beyrouth* (Municipalité de Beyrouth, Bureau de la Région Île-de-France au Liban, 2013), working for the consultancy firm URBI Architectes et Urbanistes, under the guidance of the late, and highly missed, Arch. Eng. Habib Debs (1958-2023). Walks continued beyond this assignment, both out of passion, and as part of the tasks undertaken as a graduate student within the M.A. in Urban Planning and Policy at the American University of Beirut (AUB). Along the way, the findings of these walks fed a photographic exhibition at the AUB City Debates 2014, a photographic essay on the ezine *Jadaliyya* (Guadagnoli, 2014), and the M.A. thesis (Guadagnoli, 2016). The thesis compiled the findings of the overall work and triggered in depth ethnographic investigation in specific places, shedding light on examples of the above mentioned interplay between everyday coping mechanisms and fragmented and contradictory municipal action. This article is the first publication based on these overall research findings, reinterpreted in the light of more recent work conducted by the author towards her PhD thesis (Guadagnoli, 2025).

Across such different undertakings, walks covered about two thirds of the surface of Municipal Beirut (Fig.1). These walks can be grouped in three types. First, regular walks intended for everyday personal purposes,

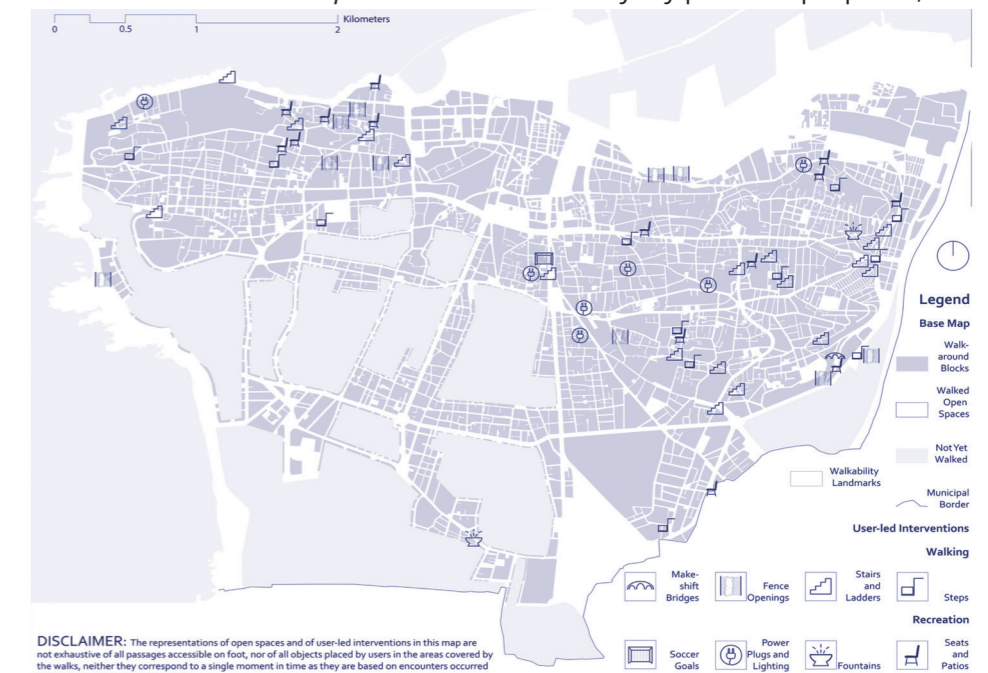


Fig.1 - Overview of the places surveyed in Municipal Beirut between 2010 and 2016.

recurrently searched, out of personal inclination, for alternative pathways along the same trajectory. These walks already allowed certain blocks to be covered in full detail, and to track the evolution of particular places over extended periods of time. Second, random exploratory walks in unknown areas allowed the survey's coverage to extend over new places. Finally, third, systematic walks secured coverage of all accessible open spaces visible on the cadastral map of the city. These walks targeted block by block most of the eastern part of the city and sections of the western part. Later in the process, targeted visits to particular places contributed to track their evolution over time. Photographs recorded installations and adaptations whose purpose appeared visually self-evident. The recording also underwent a work-in-progress refinement excluding portable installations temporarily extending private property entitlements just outside the front door of shops and homes, such as the widespread placement of clusters of plant pots, and plastic or foldable chairs and desks. This means that all instances recorded were unmovable, if not by destroying them altogether, or placed in a location which did not display conditions of entitlement for particular users. The recording was kept open ended. Meanwhile, seven places were also observed and photographed over time, documenting 6 types of interventions - replacement, damage, maintenance, removal, handmade upgrading, formal upgrading - determining their transformation over a few years. Furthermore, a selection of three places (Fig.2, Fig.5, Fig.7) was further documented by mapping and analyzing its urban context and holding informal interviews with stakeholders.

Finally, one place (Fig.5) went through in-depth investigation with participant observation, semi-structured interviews, detailed mapping and consultations towards a tactical neighborhood planning proposal, discussed in the above mentioned M.A. Thesis.

## SELECTED FINDINGS FROM THE FIELD SURVEY

Between 2010 and 2016, the field survey documented 65 places. It categorized these places into 8 classes, according to functions grouped into two broader categories of installations, those instrumental to walking and those instrumental to recreational practices. In the category of walking practices, cases included 9 fence breakthroughs, 12 steps, and 19 paths, stairs and ladders. Among recreational practices, including rest, cases included 14 make-shift seats, 2 fountains, 7 lighting poles and electricity plugs, and 2 soccer goal posts. The ownership of these places mostly ranged between private persons and the public domain, while few places were on land owned by private institutions or state agencies. Regardless of their ownership, all of these places were physically accessible to pedestrian circulation (Fig.1). Two more places, for a total of 67, also featured in the photographic survey, adding a category related to plant life, with two spontaneous tomato plants grown out of solid waste dumping sites (Fig.10). All images featuring below are by the author of this article, unless otherwise noted.

In this article, a selection of 9 places illustrates one example for each the above mentioned classes, with two examples, paths and stairs, splitting the related class in two distinct entries. This selection of user led physical installations or adaptations in open space provides supporting evidence for the below examination of spatial betweenness as possibility. The evidence shows how betweenness characterized by conditions of vagueness gives way to conditions of centrality. Four of these nine sites display adaptations and installations related to pedestrian need for shortcuts. The other five refer each to different recreational uses.

Observed fence breakthroughs display different arrangements. Most entail a physical modification revealing the actual stability and

regular use of the breakthrough. Some display a makeshift rough lay out. Some display a finishing touch, just enough to give a sense of legitimacy, while still allowing for easy redress in case of changing circumstances. In Fig.2, the finishing touch can be observed in the precision with which the grid was cut off the frame. Indeed, the preservation of the frame reveals the wish to keep open the possibility of blocking the hole again, if need be. Located between a large municipal sport facility and a sidewalk along a high speed ring road, the breakthrough stands on the opposite side of the gate of the facility, its official entrance, saving a long detour to users coming from the ring road. Here, facility-to-street betweenness meets two factors of vagueness corresponding to the interplay between two different concerned stakeholders. The ambivalence of the management of the facility mirrors the above mentioned fragmentation in local governance on the side of the



Fig.2 - Fence breakthrough (photo by Emanuela Piazza, 2011).



Fig.3 - Steps (2012).

public administration, tolerating informality while by-passing formalization. The centrality established by fence breakthroughs can be labelled 'joint'. This label corresponds to the horizontal bilateral connection characterizing their facility-to-street betweenness, occasionally ignoring the vertical betweenness of the steps added in the particular case portrayed in Fig.2. Steps of different shapes are commonly added in points requiring some kind of climbing over. Bricks or stone blocks used to build observed steps display different arrangements. Some are cemented into the ground (Fig.3), others are just laid on the ground and easily removable (Fig.2). Some work in combination with other furnishing, such as the lighting pole and the rungs in the railing in Fig.3 or the fence in Fig.2. Some work by themselves. The steps in Fig.3 are located between a large sidewalk on a boulevard and a private seaside estate, whose owner, one of the most prestigious private

universities in the country, is used to social responsibility policies. These steps display similar factors of vagueness to Fig.2. Fragmented local governance, from the public administration side, and private ambivalence, from the land owner side, allow anybody, able and willing to overpass, to enter the estate at any time. In turn, instead of opening an official public entrance with opening hours, vagueness preserves the option to easily restrict this possibility by removing the bricks. In the case of steps, betweenness refers to two trajectories, one horizontal and the other vertical. The related quality of centrality can therefore be labelled 'junction' as it involves multiple overlapping trajectories.

Paths are usually carved out of wild vegetation growing on vacant land, as in typical examples of *terrains vagues*. Carving typically occurs whenever alternative routes entail a much larger distance, in case of a dead end, of an irregular

road grid, or in case alternative routes entail exposure to heavy vehicular traffic or to security checks. In this class, betweenness concerns the streets connected by the path, maintaining a singular and bilateral character. The related quality of centrality established by this arrangement can therefore be labelled 'joint'. The key factor of vagueness can be attributed to the vacancy of the land, where perceived emptiness, together with the both physical and symbolic screen of wild vegetation, encourage access by people lacking mainstream mobility options. Occasional items lay along the path to help overcoming punctual obstacles, holes or steeper stretches. Fig.4 portrays a stretch of a long path carved by users along a north-south trajectory, flanked by the eastern stretch of the city ring road.

The path lies on the land which used to host the old, nowadays abandoned, railway. Here, as a



Fig.4 - Path (2012).

factor of vagueness, fragmented local governance lies behind the persistence of vacancy on such a large plot of land owned by a single institution. Regardless of various encroachments and infrastructural breaks determining a wide variety of landscapes along the way, until 2016 the path was still fully, if not comfortably, walkable for almost 2,5 km, from Armenia Street to the Adlieh Roundabout. The first closures were first observed during the last field visit in the southern stretch.

Makeshift stairs and ladders are typical features of *terrains vagues* in Beirut due to its hilly topography. In this example, betweenness concerns multiple connections, between the streets connected by the path created with the stairs, and between sites at different ground elevation. The overlap of these two connections, respectively on a horizontal and on a vertical plane, leads to label as 'junction' the quality of centrality established by this arrangement. Again, the key factor of vagueness can be attributed to the vacancy of the land. This is not uncommon in privately owned land in Lebanon, due to the speculative financial advantages of keeping properties idle as a result of conflict, insecurity and the lack of regulation, particularly in lots with topographic and locational constraints. Moreover, based on in-depth ethnographic investigation into the case portrayed in Fig.5, fragmented local governance interestingly brings in a contradictory set of ambivalences.

Three episodes in these stairs' almost four decades long life show how the municipality actually interfered by both disrupting and supporting moves, based on two specific functions among its prerogatives. The first function is the installment of street furniture. In this regard, municipal services treated in very different ways the two edges of the lot of the stairs interfacing with the public domain, on the top and the bottom of the lot sharply sloping ground. When the research's main interlocutor and his friends rehabilitated the damaged

sidewalk and set up a seating area along the northern lower side of the lot, the municipality adopted an abstract conception of the public domain by imposing the dismantlement of the seats, deemed as obstructions of public rights of way, even though the sidewalk was already interrupted and unusable as such. Vice versa, much later, when the municipality installed a parapet on the upper southern side of the lot, the parapet was divided into two sections to grant access to the shortcut in between, acknowledging the public benefits provided by the stairs. Then, moving to the second function, following up on an informal request by an influential neighbor, the Municipality once accepted to extend to the lot its maintenance service of green public



Fig.5 - Stairs (2012).

domain, occasionally watering the plants next to the stairs. Ironically enough, the unwillingness of municipal employees to coordinate with the users, led this supporting move to destroy recent plantings because water pressure from the water truck was too strong. These three episodes show the fragmentation of public regulation across different agencies, based on different decision making factors, bypassing both owners and users.

Makeshift seating spots are also a typical feature of Beirut sidewalks. Common within streetscapes typical of mild weather Mediterranean coasts, this practice in Beirut achieves a peculiar intensity, because of the above mentioned conditions of possibility for spatial claims through neighborhood social

dynamics. The purpose of these seating spots varies widely, from residential leisure, to shopkeeping, to army and private security posts and licenced or unlicensed valet parking services. Most of them consist of mobile elements placed just outside of homes and shops, and were therefore excluded from the caseload. Yet, in some cases, seats were assembled into unmovable installments. Or, in some other cases, they were located in the absence of adjacent homes or shops which may justify the entitlement of specific users. For example, taxi drivers hold seating spots in key junctions for vehicular traffic such as the place portrayed in Fig.6, close to many of the city most prestigious hotels. Notable in the picture is the role played by the planting pots, screening the

seat from the street and preventing parking in front of it. In this class, spatial betweenness entails multiple overlapping connections on a horizontal plane, along sidewalk alignments and along the sidewalk to roadway connection, particularly strong in the case of taxi drivers. The related quality of centrality established by this arrangement can therefore be labelled 'junction'. Lying in the public domain, the key factor of vagueness can be attributed to the fragmentation of local governance. Multiple visits to the site, between 2014 and 2016, evidenced the discontinuous presence of the taxi drivers, the removable character of the arrangement, with the seating pad occasionally placed or removed on purpose, and its instability, with a final smash on the supporting

tube ultimately preventing its reinstallation.

Public fountains on walls of private buildings are a typical feature of historic urban landscapes in the Islamic world, through the institution of *waqf* (Deguilhem, 2008). While those fountains were often intended for drinking, they may come to mind when observing the two ornamental fountains installed by private shopowners at the entrance of their shops, as observed during the field survey in two different neighborhoods of Beirut, Tariq Al-Jadideh and Geitaoui. While the ornamental role of fountains in public space, as well as in private estates, is commonly acknowledged in urbanism worldwide, the specific character of the two fountains observed in



Fig.6 - Seat (2014).



Fig.7 - Fountain (2014).

Beirut lies in their betweenness, at the interface of public space and private property. Indeed, while the fountain in Fig.7 lies entirely on the sidewalk and therefore within the public domain, the furnishing of the spot in between the two trees de facto turns it into an extension of the private realm of the shop onto the sidewalk. Justified during Ramadan time by the custom of adding festive decorations such as the lanterns, the extension turns here into an all-year-round set up with the relative permanence of the fountain. In this case, betweenness entails two horizontal connections: the sidewalk to roadway connection as a landmark attracting the attention of drivers to the shop, and the connection established by pedestrian flows along side-walk alignments. The quality of centrality established by this arrangement can therefore be labelled 'junction'. Moreover, the key factor of vagueness can be attributed to fragmented local governance, allowing the shop owner to set up this unique makeshift extension of his shop into the public domain.

Compared to previous examples, where betweenness involves one or more bilateral overlapping connections, the last three examples present a different quality of betweenness. In these three cases, multiple converging factors determine a single multilateral connection. Betweenness in these examples is characterized by three components simultaneously required for the operational purposes of the installation. The quality of centrality established by these arrangements can therefore be labelled 'hub'.

In Fig.8, the placement of a football goalpost exploits the connection between a paved ground, a blind wall and a street pattern making the place accessible from multiple sides. In Fig.9, a make-shift lighting pole and an electricity plug in the public domain exploit the connection between the electricity grid, the facility provided by a small public garden and the street. In Fig.10, a tomato plant exploits the connection between a dumpsite, some soil and solar

radiation to grow, while the adjacent pile of debris impedes circulation around it, reducing chances for its removal.

In the case of the make-shift football pitch in Fig.8, ambivalence on the side of the land owner allows for the relative permanence of the removable goalposts, granting the possibility to use the place as a car park if need be. Whereas with respect to the lighting pole and electricity socket in Fig.9 and the tomato plant in Fig.10, the vacuum left by a substandard service, respectively lighting in the public domain and solid waste collection and street cleaning, constitutes a key factor of vagueness. In the case of the lighting pole, this factor acts in combination with the fragmentation of local governance allowing for the set up of make-shift installments in the public domain. In the case of the tomato plant, the neglect of the site related to the persistence of a pile of debris brings an additional factor of vagueness, giving way to the emergence of centrality.



Fig.8 - Football goal posts (2016)



Fig.9 - Lighting pole and electricity socket (2012).



Fig.10 - Tomato plant (2015).

Table 1 provides an overview of all the conditions of betweenness as a possibility for the emergence of centrality, favoured by the conditions of vagueness at play in the observed places.

## “LESS IS MORE, MORE IS DIFFERENT” (BATTY, 2000, TITLE): BETWEENNESS AS POSSIBILITY THROUGH DIFFERENTIATION

This article provides an alternative reading on *terrains vagues*, tweaking the focus from geographical objects (Kuhn, 2012) to spatial qualities. It does so by revisiting the margin-center dialectic in scholarship on *terrains vagues* through the concept of betweenness. It casts betweenness as a spatial perception, meaning a qualitative understanding of the spatial location of a place, rather than of its marginality and centrality in terms of societal significance. Building on Christopher Alexander's notion of the field of centers, the article sketches a conceptual framework towards a work-in-progress definition of betweenness. In Alexander's terms (2002), betweenness can therefore be defined as a morphological driver of the unfolding of centrality in urban form, where 'unfolding' turns into 'emergence', in the language of complexity science (Batty, 2000). According to Alexander, "the rules are only approximate. [...] Nevertheless, as a rough rule of thumb, we may keep hold of the idea that centers are coherent entities, often marked by local symmetry, by differentiation, by the presence of a boundary, and by convexity, which cooperate to cause a field effect." (2002, p. 119). Taking Alexander's words as a definition of centrality, Table 1 shows the association between centrality patterns and different conditions of spatial betweenness, in the presence of factors of vagueness. Juxtaposing the three qualities, the table highlights how vagueness, breeding a swarming

	Use	Betweenness	Vagueness	Centrality
Fence break-through (Fig.2)	pedestrian shortcut	facility-to-street	private ambivalence+ fragmented local governance	joint
Steps (Fig.3)	pedestrian shortcut	street-to-facility ground-to-low fence	private ambivalence+ fragmented local governance	junction
Path (Fig.4)	pedestrian shortcut	street-to-street	vacancy+ fragmented local governance	joint
Stairs (Fig.5)	pedestrian shortcut	street-to-street lower elevation-to-higher elevation	vacancy+ fragmented local governance	junction
Seat (Fig.6)	rest	roadway-to-sidewalk	fragmented local governance	junction
		sidewalk-to-sidewalk		
Fountain (Fig.7)	attraction for customer	facility-to-street	fragmented local governance	junction
		sidewalk-to-sidewalk		
Football goal posts (Fig.8)	playing sports	paved ground-to-blind wall-to-street	private ambivalence	hub
Lighting pole and electricity socket (Fig.9)	power supply	electricity distribution grid-to-facility-to-street	fragmented local governance+ substandard service (public lighting)	hub
Tomato plant (Fig.10)	reproduction	dumpsite-to-soil-to-solar radiation	neglect+ substandard service (waste collection and street cleaning)	hub

Table 1 - Conditions of betweenness, vagueness and centrality in the observed places.

multiplicity of practices, provides an enabling condition for betweenness to unfold and for centrality to emerge. According to Alexander, unfolding enacts a process of differentiation of urban form headed towards the emergence of centrality. Yet, this spatial understanding of centrality, and of betweenness by extension, raises questions on the representation of space. As put by Alexander, it requires putting aside the "picture of space [...] that] has been put in our minds by Descartes and by the assumptions of mechanistic science, [...] specifically [describing] space as a neutral and strictly abstract geometric medium" (Alexander, 2002, p. 426), "the kind of inert and abstract Cartesian matter-space scientists have taken for granted for the last three hundred years" (Alexander, 2004, p. 23). Different scholars previously examined these questions of representation, alternatively addressing them as view, vision or model of space, from different disciplinary perspectives, highlighting the ontological grounds of the epistemological constraints posed by geometric space (Couclelis, 1999; Farinelli, 2003; Decandia, 2008; Davoudi, 2012; Webber, cit. in Paba & Perrone, 2017; Lefebvre cit. in Schmid, 2022). The conceptual framework sketched

in this article provides preliminary insights to craft an hypothesis about the emergence of urban form in the light of this literature.

This hypothesis suggests that vagueness, as conceptualized and documented above, may act as a magnifier of certain qualities of space, such as betweenness and centrality. In turn, this magnifying role may prove uniquely revealing, observing how the qualities here under consideration get otherwise ignored in modern geographic and geometric models of terrestrial space, represented as an inert, united, homogeneous and isotropic vacuum and neutral container (Couclelis, 1999; Alexander, 2002, 2004; Farinelli, 2003). By extension, this conclusion matters for spatial planning and design, and for scholarship on vagueness in urban space, because these qualities also get ignored in the study, and in the planning and design of places conceived according to those models of terrestrial space. Therefore, this article ultimately sheds light on the ontological implications of framing the question of vagueness in terms of spatial objects such as *terrains vagues*, or in terms of qualities, such as betweenness, vagueness and centrality, and their association.

## WORKS CITED

- ALEXANDER, Christopher. *The Nature of Order Vol. 1. The phenomenon of life*. Berkeley, California, The Center for Environmental Structure, 2002.
- ALEXANDER, Christopher. *The Nature of Order Vol. 4. The luminous ground*. Berkeley, California, The Center for Environmental Structure, 2004.
- ANDRES, Lauren. Differential Spaces, Power Hierarchy and Collaborative Planning: A Critique of the Role of Temporary Uses in Shaping and Making Places. In: *Urban Studies*, 2013, issue 50(4), pp. 759-775.
- BATTY, Michael. Less is more, more is different: complexity, morphology, cities, and emergence. In: *Environment and Planning B: Planning and Design*, 2000, issue 27(2), pp. 167-168.
- BORDEN, Iain and others, The Unknown City. *Contesting Architecture and Social Space, A Strangely Familiar Project*. Cambridge: MIT Press, 2001.
- CHAABAN, Jad and others. Beirut's 2016 Municipal Elections: Did Beirut Madinati Permanently Change Lebanon's Electoral Scene? Case Analysis Series, Doha: Arab Center for Research and Policy Studies, 2016.
- COUCLELIS, Helen. Space, Time, Geography. In Longley, Paul A. and others, eds., *Geographical Information Systems: Principles, Techniques, Management and Applications*, 2nd Edition, Abridged, Wiley, 2005 (first edition 1999), p. 29-38.
- CRUCITTI, Paolo, Vito Latora, Sergio Porta. Centrality in networks of urban streets. In: *Chaos: an interdisciplinary journal of nonlinear science*, 2006, issue 16(1), 015113.
- DAVOUDI, Simine. The Legacy of Positivism and the Emergence of Interpretive Tradition in Spatial Planning. In: *Regional Studies*, 2012, issue 46(4), pp. 429-441.
- DECANDIA, Lidia. *Polifonie Urbane: oltre i confini della visione prospettica*. Roma: Meltemi, 2008.
- DE CERTEAU, Michel. *The Practice of Everyday Life*. Berkeley: University of California P, 1984.
- DEGUILHEM, Randi. The Waqf in the city. In Salma K. Jayyousi and others, *The city in the Islamic world (2 VOLS.)*. Leiden: Brill, 2008, pp. 929-956.
- FARINELLI, Franco. *Geografia, Un'introduzione ai modelli del mondo*. Torino: Einaudi, 2003.
- FAWAZ, Mona. Exceptions and the actually existing practice of planning: Beirut (Lebanon) as case study. In: *Urban Studies*, 2017, issue 54(8), pp. 1938-1955.
- FAWAZ, Mona. Informality as exception: case studies from Beirut. In: Deboulet, Agnes, ed., *Rethinking Precarious Neighborhoods*, 87. Etudes de l'AFD n° 13, 2016, pp. 87-103.
- FREEMAN, Linton C. A Set of Measures of Centrality Based on Betweenness. In: *Sociometry*, 1977, issue 40(1), pp. 35-41.
- GANDY, Matthew. Marginalia: Aesthetics,

Ecology, and Urban

Wastelands. In: *Annals of the Association of American Geographers*, 2013, issue 103(6), pp. 1301-1316.

GROTH, Jacqueline and Eric Corijn. Reclaiming Urbanity: Indeterminate Spaces, Informal Actors and Urban Agenda Setting. In: *Urban Studies*, 2005, issue 42(3), pp. 503-526.

GUADAGNOLI, Giulia. Dodging City Archive Beirut Chapter. In: *Jadaliyya, Photography* page, 2014.

GUADAGNOLI, Giulia. Tools for tactical neighborhood planning and design: lessons from user led physical interventions in Municipal Beirut open spaces. M.A. Thesis, American University of Beirut, 2016.

GUADAGNOLI, Giulia. Ontological and formal analysis in representation, of, and for, the spatial organization of the built environment: examining assumptions and ambiguities across description and prescription in spatial planning. PhD Thesis, University of Florence, 2025.

HARB, Mona, Sami Atallah. Lebanon: A Fragmented and Incomplete Decentralization. In: Mona Harb, Sami Atallah, eds., *Local governments and public goods: assessing decentralization in the Arab world*. Beirut: The Lebanese Center for Policy Studies, 2015, pp. 189-224.

HARB, Mona and others. Rebuilding post-blast Beirut: nonprofit urban governance, sectarian moralities, and emerging commons. In: *City*, 2025, Special Feature: Urban politics and religious actors: Learning from the cities in the Middle East, pp. 1-21.

HARB, Mona. Urban crisis as infrastructure, not event: A view from Beirut. In: *Dialogues in Urban Research*, 2025, issue 3(3), pp. 293-298.

HARB, Mona. Public Spaces and Spatial Practices: Claims from Beirut. In: *Jadaliyya, Cities* page, 2013. <https://www.jadaliyya.com/Details/29684/Public-Spaces-and-Spatial-Practices-Claims-from-Beirut>

INTERNATIONAL MONETARY FUND. Strategy for Fragile and Conflict Affected States, Policy paper, 2022. <https://www.imf.org/en/publications/policy-papers/issues/2022/03/14/the-imf-strategy-for-fragile-and-conflict-affected-states-515129>

KAMVASINO, Kristallia, Marion Roberts. Interim spaces: Vacant land, creativity and innovation in the context of uncertainty. In: Patrick Barron, Manuela Mariani, eds., *Terrain Vague: Interstices at the Edge of the Pale*. London: Routledge, 2014, pp. 187-200.

KRIJNEN, Marieke, Mona Fawaz. Exception as the rule: High-end developments in neoliberal Beirut. In: *Built environment*, 2010, issue 36(2), pp. 245-259.

KUHN, Werner. Core concepts of spatial information for transdisciplinary research. In: *International Journal of Geographical Information Science*, 2012, issue 26(12), pp. 2267-2276.

LOI, Martina. Urban motorways as spaces of possibility: Urban interstices and everyday

practices around a motorway in Sardinia. In: *Urban Studies*, 2024, issue 61(13), pp. 2548-2564.

MADY, Christine. Organised Chaos or Induced Disorder? Reading Beirut through its Juxtapositions. In: Ranabir Samaddar, Enrica Morlicchio, Sandro Mezzadra, eds., *The City as the Southern Question, Alternative Histories of Urbanisation After Gramsci*. London: Routledge, 2025, pp. 90-107.

MUNICIPALITÉ DE BEYROUTH, BUREAU DE LA RÉGION ÎLE-DE-FRANCE AU LIBAN. RECONQUÉRIR LES ESPACES PUBLICS DE BEYROUTH, Vers une politique d'aménagement durable, AFD, MAÉ.

NEWMAN, Mark E. J. A measure of betweenness centrality based on random walks. In: *Social Networks*, issue 27(1), 2005, pp. 39-54.

PABA, Giancarlo, Camilla Perrone, Place matters, spatial implications of post-metropolitan transition, in Balducci, Alessandro, Valeria Fedeli, Francesco Urbi, eds., *Post-metropolitan territories and urban space*. London: Routledge, 2017, pp. 256-265.

ROSA, Brian, Dimitrios Panayotopoulos-Tsiros. Is the terrain still vague? Reconsidering indeterminate spaces. In: *Social & Cultural Geography*, 2024. DOI: 10.1080/14649365.2024.2431013.

SERRA, Miguel, Bill Hillier. Angular and Metric Distance in Road Network Analysis: A nationwide correlation study. In: *Computers, Environment and Urban Systems*, Volume 74, 2019, pp. 194-207.

SEVTSUK, Andres, Michael Mekonnen. Urban Network Analysis Toolbox. In: *International Journal of Geomatics and Spatial Analysis*, issue 22(2), 2012, pp. 287-305.

SCHMID, Christian. *Henri Lefebvre and the theory of the production of space*. London: Versobooks, 2022.

SILVA, Cristian. The spatial ontologies of interstitial spaces: Insights from Belfast's "interfaces" and the spatialization of the in-betweenness. *Journal of Urban Affairs*, 2024. DOI: 10.1080/07352166.2024.2419062.

SOLÀ-MORALES, Ignasi de. *Terrain Vague*. In Davidson, ed., *Anyplace*. Cambridge: MIT Press, 1995, pp. 118-123.

SWYNGEDOUW, Erik. Scaled geographies: Nature, place, and the politics of scale. In: Eric Sheppard, Robert B. McMaster, *Scale and geographic inquiry: Nature, society, and method*, 2004, pp. 129-153.

TONKISS, Fran. Austerity urbanism and the makeshift city. In: *City*, issue 17(3), 2013, pp. 312-324.

TUAN, Yi-Fu. Place: An experiential perspective. In: *Geographical review*, issue 65(2), 1975, pp. 151-165.

## NOTES

1. "A recursive field effect in which centers are induced by other centers", Alexander, 2002, p. 119.