OPEN ACCESS

The 4th World Sustainability Forum
1 - 30 November 2014

http://www.sciforum.net/conference/wsf-4

World Sustainability Forum 2014 – Conference Proceedings Paper

Convivial Greenstreets as Force and Context for Urban Sustainability

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Received: 29 September 2014 / Accepted: 27 October 2014 / Published: 1 November 2014

Abstract:

This paper introduces the concept of *convivial greenstreets*, explores examples drawn from select western European cities, and observes their role as local-scale settings for sustainability and social expression. Focusing on private sector green installations along tight urban core streets, it finds that street-side plants, tiny gardens, and related accoutrements appear to contribute as both context and pretext for conviviality—a crucial trait of civil society in the contemporary city. Through an interplay of empirical observation and broad reading of urbanism literature, essential attributes are defined that tie together characteristics of street-side gardening, interacting agents, and spatial and physical contexts. A typology is constructed with examples drawn from a corpus of site photographs and field notes. Select streets that exude an especially intertwined greenness and open-armed conviviality are profiled. I conclude by suggesting that, beyond the provision of ecosystem services, convivial greenstreets may provide spatial and ontological contexts within which plurality can thrive and sustainability capital can accrue in the evolving metropolis.

Keywords: conviviality; sustainability; greenstreet; urban gardening; green infrastructure; sustainable urbanism; landscape typology; urban morphology.

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1. Introduction

1.1 Research Impetus: Experiencing a Particular Kind of Place

This paper introduces the concept of the *convivial greenstreet*, describes its essential characteristics, and submits that such places may contribute to sustainable and inclusive places in the city. The impetus for this ongoing research project evolved over a decade of periodic observations in western Europe, and through the realization that the particular kind of urban spatial phenomena I was encountering had yet to be clearly reified in sustainability, urban design, and urban morphology literatures. In contrast to the generic public streetscape, these tended to be smaller-scale, walkable, and spatially intimate streets in and around the city core—linear spaces imbued with foliage, flower and fruit, and visibly well tended. In such places it was readily apparent that pedestrians slowed their pace, curious over a plant or a bit of intriguing green infrastructure, or pausing when met by a waft of fragrance or a serendipitous butterfly. At routine times of day, when inhabitants, shopkeepers, and visitors crossed paths, friendly greetings were expressed. Children actually played in the streets after school. It seemed that both the horticultural activity and the objects of horticulture were serving as pretext for a sort of civic "*gezelligheid*" (Dutch) or "*gemütlichkeit*" (German)—both terms translate imprecisely as a warm and sociable togetherness. Certain streets in certain cities felt especially verdant, affable, and alive. Some of the more notable examples hinted at a locally expressive kind of neighborhood sustainability—both in terms of the physicality of the space (ecology, materiality), and in terms of the planterly discourses (verbal, sensory, semiotic) in which sustainability values and practices might be shared and reinforced.

A singular definition of *convivial greenstreet* is a delicate task, reminiscent of Malcolm Miles' difficulty in defining the closely related concept of the "architectural everyday" ([1], p. 3]. Three key facets of the places observed—the social (conviviality), the material/ecological (greenstreet flora and its infrastructure), and the spatial (street volume)—are captured in the phrase "convivial greenstreet." This paper attempts to balance the "green" and "conviviality" parts of the equation, represented in both the practice of participants in a particular location and the quality of places and shared human togetherness ([2], p. 346). Supported by the literature, I argue that, when sufficiently intense, the greenstreet is the active spatial context for a material culture of personalized-yet-interactive horticulture that expresses, demarcates, instructs, appropriates and contests.

In documenting the *convivial greenstreet* and developing it conceptually, I draw from empirical observation across a selection of small and larger cities in The Netherlands, the German Rhineland area, Belgium, and Paris. Data are then considered in light of a review of literature on larger themes and conceptual analogies in sustainability and urbanism discourses. As elaborated below, this exploration of the essential characteristics of the convivial greenstreet results in a variety of types [3]. Finally, implications for theoreticians and practitioners are posed, and a call is made for expanded study of the convivial greenstreet as a distinct phenomenon that deserves a place in the canons of sustainability science and urban morphology.

1.2. Basis in Literature

A wide reading through the literature across several fields hints at, but does not give shape to, the concept of convivial greenstreets. However, the idea fits into several theoretical schemas, with

analogies found in urban studies, phenomenology, ethnography, urban semiotics, and landscape urbanism and morphology literatures, among others. This provides some reassurance that the idea can be reified, and suggests that it might be a fruitful theme for further scientific inquiry and application in planning praxis.

Jonathan Sacks said, "Culture is society talking to itself…and society is losing the plot" [4]. By extension, place-based urban culture relies on human-scale discourse in the public space that binds together the private spaces—in particular, the street [5]. One way of encouraging this "talk" and reinvigorating the small "plots" of everyday life along the street—largely extending outward from homes, shops, and local institutions—is to have something growing, expressive, and perhaps even therapeutic to tinker with and mingle over in the intersections between public and private spaces [6,7].

Spending time on site I began to see conceptual links between apparent social phenomenon of streetside greenery being tended by diverse inhabitants on the one hand, and themes in the literature on the other. For example, greenstreets seemed to be the foci of *ad hoc* "speech communities" that form a kind of landscape-based "language" [8] and inter-dialectical communication, or "pidgin" ([9], p. 6), gathered around horticultural practices that, with enough time and interest, may form a "community of practice" [10]. While further study is needed, my observations suggest that particular kinds of greenstreets are especially open to sustainability discourse, while presenting a model for environmental sustainability [11,12]. Although Miles' chief concern is urban vernacular architecture, he profiles cases that are quite analogous to the greenstreet. He writes, "An understanding of the architectural everyday contributes to sustainability by emphasizing the specifics of locality…sustainable solutions to urban problems will be found outside the dominant structures of development" ([1], p. 203).

In a seminal critique of industrial society in the 1970s, Ivan Illich's *Tools for Conviviality* called for alternative economies and social constructs that would "enlarge the range of each person's competence, control, and initiative, limited only by other individuals' claims to an equal range of power and freedom" ([13], p. 12). His manifesto was portentous, a rejection of the maximal rationality and institutional professionalism that worked against spontaneous initiative and creative intercourse among persons in the city ([2], p. 343). Years later, Miles would refocus the question onto urban places, asking, "Is it possible, then, that cities could be regenerated according to the needs of dwellers? ... Is it entirely fanciful to imagine cities in which the guiding principle is not coercion or productivity, but joy?" ([1], p. 3-4).

Other scholars concur. Hard and Misa examined local forms of spatial culture (but not greenstreets) in their search for counterpoints to the gloom of urban homogenization and globalization. They called for the co-construction of urban technological structures as the "second nature" of the city, part of the support system that affords it life ([14], p. 15). In linking urban quality of place, the rise of the creative class, and economic vitality, Kloosterman and Trip [15] and Florida [16] point to vibrant and pedestrianized street life as important variables.

So it seems that convivial greenstreets may provide a suitable space for these urbane projects to flourish. First, however, an examination of a few more of the nuances encountered is in order. In the greenstreets sense, conviviality is more than *bon mots* on the pavement. In its most intimate form, it frames personal connections to the life cycle of plants and the pleasures of flower, fruit, fragrance and texture, set within the public sphere that lies just outside the doors and windows of the inhabitants along a street. Greenstreets, and other green spaces in the city, provide connections to natural

processes and phonological rhythms that have become all too scarce in the denser parts of the city [12,17,18]. One of Ramsden's interviewees captures the essence, "If I want I can stop and look over the bridge, which is an essential thing on bridges: you just have to stop and look. Walking over the Cut and noticing the tide every day. It's my little bit of countryside… I can see the seasons" ([19], p. 229).

Note that conviviality and community in this context are not the same things. Communities have members and non-members, with members often making decisions about in– and exclusions. On the other hand, conviviality is contingent and dynamic and sometimes eventfully inclusive of visitors drawn to pause along their way. All the while, the greenstreet performs double duty as a public corridor that also accommodates the passage of others [20]. Yet at its core conviviality draws on community for its cohesion. The spatio-physical environment and adjacent land use activities provide the continuity within which the convivial mood ebbs and flows, peaking now and then during daily events of personal engagement with the greenstreet materiality or inter-personal and inter-community interactions along the street.

Jane Jacobs wrote, "Sidewalks, their bordering uses, and their users, are active participants in the drama of civilization" ([21], p. 30). But she also calls for "eyes on the street, eyes belonging to those we might call the natural proprietors of the street…Once a street is well equipped to handle strangers, once it has both a good, effective demarcation between private and public spaces and has a basic supply of activity and eyes, the more the merrier" ([21], pp. 35, 40). Thus, the objective is not *laissez-faire* conviviality; rather, the civil and trustworthy kind that is universally expected of, but only sometimes delivered by, the human-scale city street. While probing the rise of urban "communities of similarity" and "mixophobia" as antitheses to "communities of difference", Bauman implies that place-based conviviality involves "the art of negotiating shared meaning…a *modus covivendi*" ([22], p. 32). I sensed this ambivalence in a few of the many streets observed, yet would assert the far greater role of greenstreets as antidotal to a range of urban dysfunctions. The promise, and in key instances reality, of the convivial greenstreet is to provide a context for what Miller ([23], p. 131) calls a "Dionysian consciousness" where inhabitants and regular or cameo passersby participate in the dance of the good city. Plants and the practices that nurture them breathe energy into the setting, helping release participants for a while from the weightiness of the city.

2. Methods

During this concept-formation phase of research my focus is on the 'what/where' and 'who' of convivial greenstreets—a robust first-pass inventory and synthesis of tangible elements such as materiality, vegetation, civic and green infrastructure, spatial volume, human activity, and land use adjacencies [24,25,12]. However, by professional inclination and simply because these ideas compel one to take advantage of real time on site to pose questions of 'how' and 'why', my approach adopts some common reflective and phenomenological tactics to observe and perceive places in their context ([26], p. 303; [27]). Thus, besides compiling a catalogue of physical features, I took on the role of "snapshot" ethnographer and *flâneur*—the immersed scholar who critically observes people and urban spatial practice ([28]; [29], p. 21). My inquiries also involved "weaving critical ideas into the narrative" through the act of walking ([30], p. 153).

Supported by insights from the literature, my methodological intent was that the findings would provide a scaffold from which to build further specialized inquiries. Future phases of study may seek

to deepen the socio-phenomenological content of the work, perhaps following Kusenbach's "go-along" method of accompanying individual informants on their natural interactions along the street ([31], p. 463).

The Netherlands, the Rhineland area of Germany, and Belgium were chosen as the primary study areas for their well-known progressive urbanism, affinity to horticulture, and efficient adjacency. Paris was added as late venue when colleagues at the Akademie für Internationale Bildung (AIB) in Bonn invited me along on a week-long field trip in October, 2014. Specific cities were chosen for their potential to house convivial greenstreets. Criteria included socioeconomic diversity, urban density and walkability, as well as accessibility for the author. Bonn, Germany served as research base in 2013 and 2014 because of my academic association with AIB. Colleagues there proposed specific neighborhoods in Bonn and Andernach, as well as quarters in the nearby larger cities of Cologne and Frankfurt. Professional contacts and relatives in the Netherlands suggested the smaller and highly walkable Dutch cities of Leiden, Delft, Leeuwarden, and Katwijk, as well as inner-ring districts in the larger city of Amsterdam. The specific location and timing of field studies were as follows:

Country/City	Quarter/Neighborhood	Date(s)
The Netherlands		
Amsterdam	Jordaan, Grachtengordel-West	July 2011, Oct. 2014
Delft	Binnenstad, Centrum-oost	July 2011, Oct. 2014
Leiden	Binnenstad-Zuid/Noord, Stationsdistrict	July 2011, Oct. 2014
Leeuwarden	Centrum	July 2011, Oct. 2014
Katwijk	Katwijk aan Zee central core	Oct. 2014
Germany		
Cologne	Ehrenfeld, Altstadt-Süd, Sülz Lindenthal, Neustadt-Süd	May 2013, Sept. 2014
Bonn	Altstadt, Zentrum, Südstadt	May 2013, Oct. 2014
Frankford	Innenstadt	May 2013
Aachen	central core	Sept. 2014
Aldenach	central core	Oct. 2014
Belgium		
Brussels	Saint-Giles, Forest, Ixelles	Aug. 2011, Sept. 2014
Ghent	Centrum, Patershol	Sept. 2014
France		
Paris	Le Marais, Quartier d'Amerique, Montmartre, Quartier Latin	Oct. 2014

The triangulation process of finding study sites was fleshed out through querying online sources about neighborhood characteristics (e.g., the city's home website, Lonely Planet). The list of target neighborhoods was affirmed through virtual walkabouts on Google Street View. Productive field studies took place over the course of several weeks each during the summers of 2011–2013 and September and October of 2014. Each field visit began by crisscrossing likely neighborhoods on foot until suitable locations were encountered. Time spent in a quarter or neighborhood varied from several hours to as long as three days, depending on the extent and intensity of greenstreet artifacts encountered, and whether the phenomena occurred on just one street or were evident across a network of streets throughout an urban precinct. As listed above, most of the cities were visited twice within a three-year time span or less.

Site inventories targeted streetside gardening and green installations. Individual features were noted in a fieldbook and photographed both up-close and laterally from a few steps back to place objects in the context of their surroundings. Note here that 'street' includes the entire spatial volume: streetscapes, entryways, stoops, facades, balconies, windows, alcoves, railings, and anything else that might accommodate plants and related infrastructure, as perceived by one occupying the street. Photo-locations were mapped at the scale of street and nearest intersection, cross-referenced to Google Maps using an Apple iPad3 with cellular capability.

Because the inventory was an extensive exploration sampling multiple cities, exacting field measurements (e.g. dimensions of a stoop-garden) were not conducted, and census taking (e.g. number of green installations/block) were limited to visual estimates on location. Both during and after inventorying, activities and social interactions along the street that seemed to be in any way associated with streetside horticultural were observed and noted. Lastly, features of the streetscape or adjacent built form that were part of the on-street discourse, such as bicycle culture or wall stenciling, were noted.

3. Results and Discussion

The primary goal of this research is to flesh out the concept of convivial greenstreets based on the interplay of insight gleaned from the literature and data collected on site. The first question "what are we looking at?" was followed by data sifting to look for patterns that could inform a conceptual framework. The result is a synthesis of three interrelated ways of looking at convivial greenstreets: i) a hierarchical synopsis of the range of greenstreet physical elements inventoried ii) a distillation of the key qualities that distinguish the convivial greenstreet, and iii) an empirically grounded typology of broad categories of greenstreet social functions and spatial/land use contexts. Note that, because of the many variables and permutations observed, it seemed there was little use in attempting to specify a firm point at which a street would pass or fail the test of green conviviality. However, greenstreet exemplars that attracted close examination during fieldwork are highlighted in section 3.4.

3.1. Greenstreet materiality

A hierarchical synopsis of physical greenstreet elements encountered during field studies is shown in Figure 1. This is an amalgam of the entirety of object types (forms and materials) inventoried from all study sites. As a snapshot of a dynamic phenomenon, the summary is inherently incomplete. No single study site or even neighborhood contained all elements listed. Since plant forms and related infrastructure come and go and inhabitants' cultivation practices evolve [10], the process of fleshing out Figure 1 should be considered an ongoing and open project.

This field data synthesis should prove useful as a kind of taxonomy to assess the elemental diversity of greenstreets. For example, the variety of materials and tangible expressions of identity is evident in the Private Sector portion of Figure 1. While the diagram provides an itemized compilation, it is important to realize that greenstreet elements interact along a continua of space and time in their contexts, from the scale of individual perception at single moment on the street, to the collective network of interacting private and public sector installations within their typological frameworks (discussed later) at the neighborhood/city quarter scale over periods of days, seasons, and longer.

Figure 1. Hierarchical synopsis of convivial greenstreet elements.

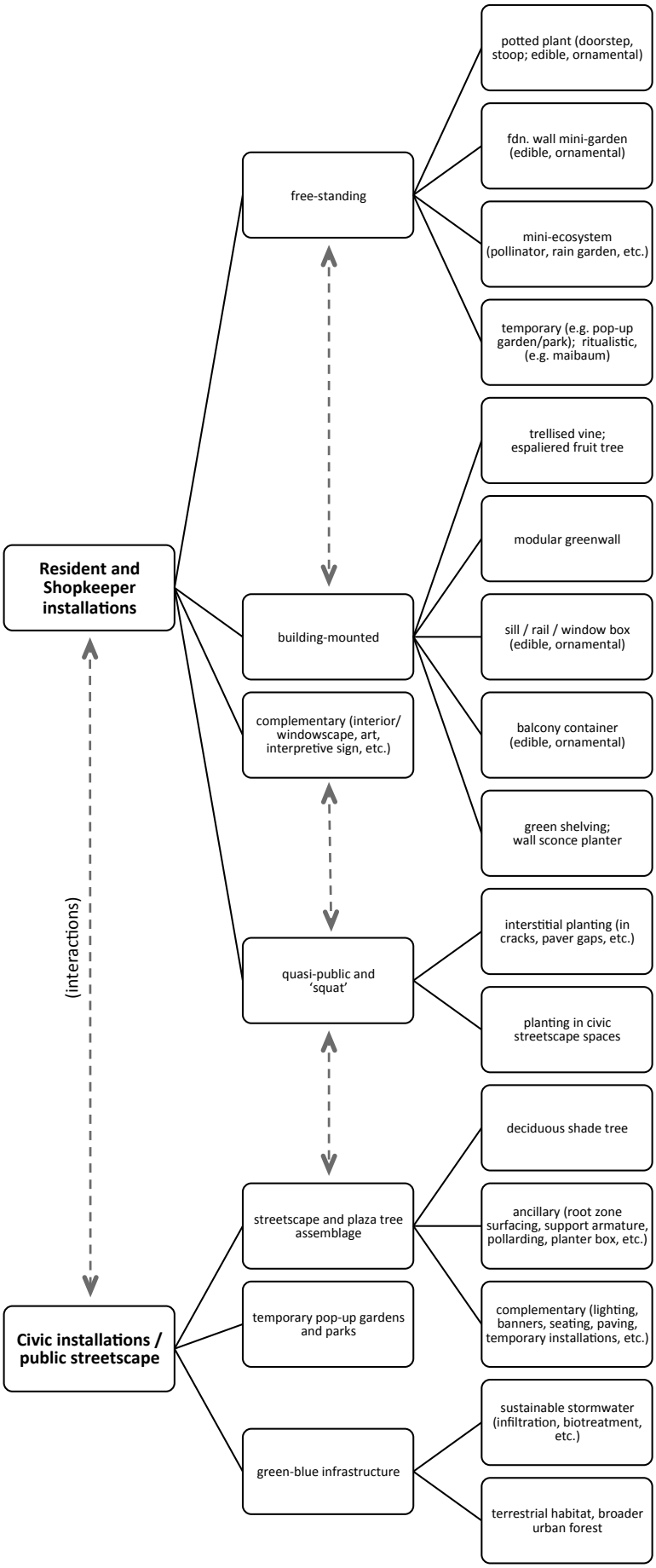

Figure 1 could also potentially be used as a checklist, either along a particular branch of scholarly inquiry, or simply as a way that community groups and practitioners might frame possible interventions along their greenstreets.

3.2. Convivial Greenstreet Attributes

Time spent studying greenstreets in action provided valuable insight on a wide range of physical phenomena along the street. Moreover, as ethnographic *flâneur*, time spent in study areas provided glimpses into the social life of both emerging and well-established greenstreets. Combined with theoretic grounding gained through the literature review, these activities allowed synthesis of the unifying characteristics—essential attributes—that define greenstreet form and, to an extent, function.

Essential Attributes:

1. Inhabitants as greenstreet flora-keepers. Residents are instigators, planters, and primary caregivers of greenstreet flora, and thus are the major producer and consumer of greenstreet culture. Smaller-scale businesses that participate in the greenstreet flora enterprise can be considered 'working-hour inhabitants', and play a role similar to residents, as in Type 1b and 2a mixed-use contexts (see Table 1). In many cases, green installations appear as acts of benign appropriation of space on the street. (The possibility that these are streetside indicators of post-materialist leanings in the neighborhood remains to be investigated).

2. Greenery in tight quarters. Inhabitants install and tend plants along the street because their outdoor garden locational options are very limited (see Figures 3c, 3e, and 4b). As a result, and in contrast to the suburban landscape, there is substantial and largely positive 'friction' between streetside flora and inhabitants, passersby, and shopkeepers. Greenstreets as a social environment work best in the denser residential and finer-grained mixed-used urban quarters largely because of the combination of limited space and flora-keeper presence. The residential side streets of Amsterdam's Jordaan neighborhood are exemplars in extent and intensity, as shown in Figures 3a and 4a. More broadly, the frequent correlation between urban density and the "creative class" is noted by Florida [16] and others.

3. Accommodating spatial volume. The street volumetric space between building façades accommodates greenstreet-associated activities and socialization functions. Streets are walkable and the pedestrian zone (whether the entire street or sidewalks) is reasonably unhampered by motor traffic. Inhabitants and passersby feel comfortable in the spatial volume of the street, where human scale, built form, street width, and flora are in some harmony. As shown on Table 1 and Figure 4b, an ideal configuration is the Type 1 spatial ratio of 2:1–1:2 and a maximum of 4 storys in height. Note that this corroborates with urban design literature [5].

4. Intensity, variability, sustainability. Up to the point of saturation, the more plants and related accoutrements there are along the street the greater the level of convivial social interaction. Likewise, diversity of plant forms (e.g. herbs, vines, smaller woody plants) and range of values present (e.g. sensory appeal, novelty, food production, habitat) generate appreciative emotional responses, inter-personal queries, knowledge sharing, and cooperative tendencies.

Secondary Attributes:

In addition to the essential attributes noted above, secondary supportive contextual attributes were observed. For example, fine-grained, human-scale land use mixes with ample residential content tended toward more intense and inter-personal conviviality, while coarse-grained land uses flanking streetscapes installed by public or corporate entities generally presented a more dispersed and impersonal sense of conviviality. Critical theorists might see in such street furniture, tree rows, regulatory signs, expensive paving and other demarcations a spatial order designed to uphold institutional control in the civic realm ([14], p. 8).

Study sites in Amsterdam and Delft (see Figures 3a, 3c, 4a, 4b) were among the most elaborate and well cared for in terms of intensity of plantings in tight quarters and range of plant forms and cultivars. Other sites, such as Bonn's Altstadt neighborhood, showed a light-handed, quirky, and dispersed pattern of resident installations along a streetscape dominated by Japanese cherry trees in the public right-of-way (see Figure 2). Altsadt was also one of several neighborhoods where competing streetscape semiotics was amply apparent. Exploring along Körnerstrasse in the Ehrenfeld district of Cologne revealed the presence of several competent local enthusiasts who led and taught within a greenstreet "community of practice" [10]. Such resident lay-horticulturists are consistent with Krippendorff's listing of creative contexts in which a competent individual "expands the space of possible actions" ([33], p. 4) and stimulates co-generation of place-based knowledge [34]. It is possible, too, that these and other key greenstreet participants play the role of social bridger—the "transversal enabler" who prompts convivial connections in the community ([2], p, 352).

Figure 2. Mini-ecosystem shelf planters along the sidewalk in the Altstadt neighborhood of Bonn, Germany. The sign loosely translates, "wild plants from the countryside"

Several intriguing examples of apparent municipal complicity were observed, where residents carved out planting spaces adjacent to building foundation walls and out into the pedestrian zone, clearly within the public right-of-way. For example, Figure 3b shows a case in Cologne where a merchant has removed a sidewalk paver to provide rooting space for an espaliered dwarf fruit tree. In

contrast, Brussels' Forest quarter supports a program that provides installation assistance to residents wishing to garden along the public streetscape, most often in street tree planters. Whether by benign neglect or policy, these municipalities are helping to advance the greenstreet agenda.

Considered together, these analyses add substance to the premise of the convivial greenstreet. Site observations strongly suggest that streetside plants can have semiotic meaning imparted through symbols and signs that reveal inhabitants' values. Figure 2, for example, shows both symbolic ("wild" plants) and literal signs offering instruction on urban ecology to neighbors and passersby. As urban populaces become increasingly mobile, the physical greenstreet may help provide some much-needed continuity and neighborhood-scale identity. Beyond heightened livability, a thriving greenstreet flora can become the locus for a variety of convivial relationships brought together by streetside gardening, where the ontological security of the domestic interior and the ontological risks of the street overlap and are mediated. As a number of scholars point out, such place-based, local conviviality is integral to building sustainability capital [1,2,58].

3.3. A Working Typology

Having catalogued key greenstreet materiality in Figure 1 and posited essential attributes, the final step was to look for patterns that might suggest classes, or types, of convivial greenstreets. A typological approach seeks logical and useful classification through the ordering of items into groups based on similarities or differences [36], a necessary precursor of further specialized and comparative inquiry. The typology shown on Table 1, below, is descriptive and, as an introduction, quite broad-brush. Referenced by practitioners and neighborhood groups, a regionally attuned version could stimulate awareness of the greenstreet values and practices of local inhabitants, perhaps prompting participatory and enlightened urban place-making.

Greenstreet categories emerged in two ways: as assessed by correlating field data with the essential attributes criteria noted above, and through patterning study locations as recognizable, repeated phenomena in which the aggregated elements of a single or several street blocks were compared to the larger pool of study sites.

The Table 1 typology reflects the several broad categories of greenstreet and shows that they vary in the degree to which they meet the essential qualities of 'greenstreet-ness' discussed in section 3.2. Types 1a and 1b are those capturing the essential attributes of the more robust convivial greenstreet. These are places where streetside green installations display the most variety, creativity, and care, and where eye-to-eye human interactions are most evident. Type 2 greenstreets possess some of the same horticultural and infrastructural trappings as Type 1 (for example, Rue de Moscou of Saint-Gilles, shown in Figure 4c), but fall short in some of the four essential attributes discussed above.

Relative to Type 1, Type 2b greenstreets lack persistent and convivial inhabitation, authorship, mixed cultures, and cues to personalized care. A prime example is Zeil, Frankford's core commercial broadstreet (see Figure 4d)—an elaborate pedestrian allée of pollarded plane trees intermixed with high-tech media and lighting infrastructure, and bounded by mostly corporate chain stores. On the other hand, Zeil's high degree of social mixing and programmed street activities is rarely apparent on Type 1 greenstreets, if only because their spatial volume is not sufficient and special events are not commercially programmed.

Figure 3. More greenstreet elements. **(a)** Streetside assemblage, Jordaan neighborhood, Amsterdam. **(b)** Espaliered fruit tree in paver gap, Cologne. **(c)** Sill planter and windowscape, Delft, NL. **(d)** *Maibaum* tied to lamppost, Bonn. **(e)** Commercial wall trellis, Cologne.

(a)

(b)

(c)

(d)

(e)

Table 1. Typological framework of convivial greenstreets.

Convivial greenstreet type	**Immediately Adjacent land use**	**Building height–street width ratio; Building height**	**Key interacting agents / actors**	**Convivial activity cadence** (hours)	**Observed level of relative conviviality** (active periods)	**Exemplar** (place; photograph)
Type 1. Residential						
Type 1a.	entirely Residential	2:1–1:2 2–4 storeys	resident–resident; resident–passersby	home day-time, especially pre-workday, noon and evening	higher	Jordaan neighborhood, Amsterdam, Figs. 3a, 4a
Type 1b.	mostly Residential; some smaller-scale Commercial and Institutional	2:1–1:2 2.5–4 storeys	resident–resident; resident–merchant; resident–passersby	overlap of business open and home day-time	higher	Trompetstraat, Delft, NL, Fig. 4b
Type 2. Mixed Commercial						
Type 2a.	smaller-scale Commercial; some Residential mixed in	2:1–1:3 3–5 storeys	merchants–passersby merchant–resident passersby–passersby	business open; minor pre/post-business	moderate–higher	Neustadt-Nord, Cologne, Fig. 3e
Type 2b.	larger-scale Commercial and Institutional	varies	passersby–passersby employee–passersby	business open, festivals	lower–moderate	The Zeil, Frankfurt, Fig. 4d
Type 3. Celebratory, Ritualistic	Varies	varies	varies; participants, consumers	varies; reflects celebration / ritual itinerary	moderate–high during festivities	*Maibaum* (birch Maypole) month-long ritual in some German cities, Fig. 3d

Figure 4. Convivial greenstreet types. **(a)** Type 1a. Jordaan neighborhood, Amsterdam. **(b)** Type 1b. Trompetstraat, Delft, NL. **(c)** Type 2a. Rue de Moscou, Saint-Gilles, Brussels. **(d)** Type 2b. Zeil, Innenstadt district, Frankfurt.

Type 3 streets are convivial and green in transient ways associated with events, festivals, and rituals. A good example is the Rhineland's festive *maibaum* (decorated birch cuttings, see Figure 3d) installed at the beginning of May to mark the coming of spring, initiating an exuberant, month-long period of youthful courtship.

3.4. Exemplar Convivial Greenstreets

Seven specific locales stood out as exemplars most clearly demonstrating the concept of convivial greenstreets. These are streets that accommodate both extensive and intensive greenstreet features, some of which are highly creative and idiosyncratic. Not surprisingly, all are human-scaled residential Type 1a or 1b streetscapes that are consistent with the essential attributes discussed above. Exemplars typically exhibit relatively continuous streetside horticulture where at least 50 percent of the adjacent units or 50 percent of the length of either side of the street have some sort of green installation. Each example has unique qualities that allow it to stand apart from its local urban context. Brief profiles are provided below.

Figure 5. Exemplar Type 1a and 1b convivial greenstreets.

Trompetstraat

Location: Centrum-oost neighborhood, Delft
Type: 1a (east block), 1b (west block)
Land use: primarily row homes
Demographic: mixed moderate–middle-income young families, retirees, young professionals
Street ratio / Building height: 1.5:1 / 2-3 storys
Lanes: single, limited access, no on-street parking
Comments: best example of a convivial greenstreet of the 400-500 streets surveyed; hyper-accommodating spatial volume; highly active mixed age cohorts; endowed with idiosyncratic horticulture, children and bicycles; strong cues to care, with many first-floor kitchens immediately facing the street.

Nieuwe Leliestraat

Location: Jordaan district, Amsterdam
Type: 1a, some 1b on ground floors
Land use: primarily attached walk-up apartments; interspersed ground floor craft shops and corner cafes
Demographic: mixed moderate–upper-income young professionals, artists, young families, students
Street ratio / Building height: 2:1 / 3.5-4.5 storys
Lanes: single, one-way, limited on-street parking
Comments: the best of Jordaan's extensive collection of greenstreets; diversity and intensity of installations make for the most vibrant overall convivial greenstreet district encountered.

Körnerstrasse

Location: Ehrenfeld district, Cologne
Type: 1a, some 1b on ground floors
Land use: medium-density walk-up attached apartments
Demographic: mixed low–medium-income families, students and seniors
Street ratio / Building height: 2:1 / 3.5-4.5 storys
Lanes: single, one-way, on-street parking one side
Comments: one of the most progressive greenstreet neighborhoods in Cologne; when residents commit to maintenance, plant materials in 'pop-out' planters are provided free by the City of Köln under their "Pimp-up Ehrenfeld" program.

Michaelstrasse

Location: Altstadt neighborhood, Bonn
Type: 1a
Land use: medium-density walk-up attached apartments
Demographic: mixed low–medium income families, students and seniors
Street ratio / Building height: 1.5:1 / 3.5-4 storys
Lanes: single, one-way, angled on-street parking one side
Comments: recently installed *woonerf*-like street with street tree pits and planter areas accessible to adjacent residents to plant as they like; maintenance support provided through Bonn's Office of Urban Green.

Quartier d'Amérique 'villas' (alleys)

Location: 19th Arrondissement, Paris
Type: 1a
Land use: lower-density attached row homes
Demographic: mixed low–upper-income; diverse makeup of young families, blue collar workers, and young professionals
Street ratio / Building height: 1:2 / 2-3 storys
Lanes: pedestrian-only access; peripheral or sub-surface parking throughout neighborhood
Comments: unique to Paris; row-homes built to restricted height standards due to gypsum bedrock; all greenery is on private property that visually infuses and encroaches on the network of pedestrian alleys.

Chaussée de Forest, #209–215

Location: Saint-Gilles, Brussels, Belgium
Type: 1a
Land use: attached row homes
Demographic: mixed low–medium-income; young families, blue collar workers, and young professionals
Street ratio / Building height: 2.5:1 / 2.5 storys
Lanes: none; effectively a pedestrian commons side-lane adjacent a sloped 'shard' of available soil
Comments: an intriguing collaboration between the originators-gardeners (shown) and the district of Saint-Gilles.

Rodelijvekensstraat, #21 and #23

Location: Ghent, Belgium
Type: 1a
Land use: medium-density attached row homes in slot street arrangements, unique in Ghent
Demographic: lower income, mixed enclave of Turkish ethnicity and students
Street ratio / Building height: 1.2:1 / 2.5 storys
Lanes: temporary single-lane access; laneway effectively common shared pedestrian space and temporary parking
Comments: a compact, chaotic assemblage of apparently communal potted plants, vines, and on-grade planters; ornamental and edibles.

4. Conclusions

4.1. Implications and Further Questions

These observations and the resulting typological synthesis invite a range of social and physical science questions. For instance, is there enough of intrigue in the convivial greenstreet premise to prompt deeper inquiry into landscape hermeneutics at play ([37], p. 226)? Would there be merit in exploring the semiotics of convivial greenstreets in their various forms [38,39]; for example, Bonn's enticing Altstadt district? Backhaus notes "Landscape is not only the complex system of environmental elements such as air, water, soil, etc. Landscape is also a mental institution, a symbol" ([39], p. 9). More formal semiotic inquiry may well prove useful in figuring out dynamic communication ecologies along the street. Are greenstreet "texts" open or closed [40]? Referencing Joan Nassauer's scholarship, do "messy" greenstreet installations require "orderly frames" as visual cues to care [41]?

Comparative studies of greenstreets could yield great insight into how their forms emerge from social variation. In a study geographically and spatially similar to the greenstreets I investigated, Vera [42] examined the expressive material culture of the archetypal Dutch residential streetside window (large, open to the street, copiously decorated) and compared them with patterns of German and Flemish windows (smaller, draped in the evening, sparsely decorated). Perhaps greenstreets could pose similar questions of both regional-scale civil society and street security implications. In another Dutch study involving the role of the windows and inter-visibility in residential mixed-use environments, van Nes and Rueb [43] found that uncurtained residential windows looking out into crime-prone areas contributed to heightened inter-visibility and, hence, improved social control and safety. Indeed, during evening forays through Katwijk aan Zee's tight pre-WWII subdivision I encountered large, curtainless picture windows fronting brightly-lit living rooms that would certainly detract from the temptations of darker and visually-isolated streets. Could the extension of dwellers' presence out into the street, both bodily and as signified through plant installations and garden paraphernalia, perform similar functions?

There could be merit in applying Merleau-Ponty's [44] embodied phenomenology of visceral space and "expressive gesture" in a greenstreet context, or viewing the greenstreet through the mingled

senses ("synaesthetics") of the landscape phenomenologist who argues that "Phenomenological landscape studies…attempt to capture the poetics and politics of paths and places" and that "All landscapes have profound significance and meaning for persons and groups" ([27], pp. 28, 31). Even *avant-garde* approaches to the cityscape, such as recent scholarship on "urban hacking" could shed light on the social-political functions of convivial greenstreets [45,46].

A few memorable city quarters, such as Bonn's Altstadt district, show evidence of the ideological tug-of-war between streetside convivial culture (e.g. door-step vegetables free-for-the-taking), counter-culture (e.g. stenciling and graffiti, see Figure 2), and civic authority (e.g. Bonn's Office of Urban Green cooperative plantings with contact signage). Recent literature seems to corroborate the importance of exploring the contested nature of streetside environments [47] and more generally civic infrastructure, as in Miles' account of a public lavatory that was recoded by expressive individuals through an overlay of horticultural whimsy ([1], p. 165).

I share Daniel Purdy's concern that the corporatization of European public urban spaces pushes the underclass behind the scenes [48]. The presence of "dark" social capital has been noted ([11], p. 138], and contested conviviality has been addressed by Peattie, even while describing conviviality as "the very nourishment of civil society itself" ([49], p. 250). Yet Nowicka and Vertovec cite studies suggesting some conflict is integral to conviviality. They assert, "Conflicts over everyday issues such as gardens, corridors and rubbish are modes of civil interaction," and argue that conviviality and social capital in the multi-cultural city is "a normative and often idealistic aspiration which does not exist in a vacuum" ([2], pp. 352, 346). These frank and nuanced perspectives hint at the likelihood of both more and less genuinely convivial greenstreets.

Then there is the insipid specter of commodification that sells the trimmings of the greenstreet rather than its spirit. For example, the Greenhome Decorating website [50] markets boutique doorstep horticultural hardware that seems to promote social class distinction and diffidence to the street, counter to a greenstreet ethic of inclusion and personal engagement. The authentic quality of the 'real' greenstreet is perhaps nowhere so evident as it is when food is grown by inhabitants and shared with any and all walkers along the street. Using conviviality as a framing element for her work on urban food systems, Susan Parham writes, "Sharing food together allows for a daily physical and social re-creation of the self that is also fundamental to the sense of human connection to others" ([51], pp. 10-11). These and other researchers are invited to weigh in on who benefits from streetside greenery, and whether inclusive or exclusive forms of conviviality are gaining ground in particular locales.

Beyond studying the evolving material and social qualities of sustainable greenstreets, a slate of ecosystem services and landscape performance variables remains to be described and quantified. For example, the quieting effects of urban vegetation, both aural and in terms of traffic calming, could be investigated. A German study found a firm link between urban traffic noise and heightened blood pressure in children [52]. Might similar effects of traffic calming be at play along the greenstreet? A quick perusal of de Groot et al.'s ecosystem services typology ([53], p. 396) suggests that easily two-thirds of the 23 listed ecosystem functions could be at work along the coupled human and natural system that is the robust greenstreet. Compared to streets void of plant life and fauna, greenstreets may provide values associated with biodiversity, microclimate amelioration, stormwater infiltration, contributions to urban food systems, and others.

Nevertheless, a few municipalities have already made a leap of faith. Cities on both sides of the Atlantic have initiatives that recognize "squat" gardens, or even "feral" spaces of the kind encouraged

by Manbiot [54]. The City of Bonn's *Ökologischer Lehrpfad* ("Ecology Trail") celebrates wild plants and tiny habitats associated with unmaintained corners of the cityscape, and the City of Seattle's Street Use Gardening Permits program encourages some plantings by dwellers in public tree plots [55,56].

Another worthwhile line of inquiry may be to what extent greenstreet installations are self-sufficient. Those I observed were more often horticultural than ecocultural, requiring material and energy inputs needed to bring flower and fruit to the often-inhospitable environment of the city. Systematic and comparative research initiatives, such as the Landscape Architecture Foundation's Landscape Performance Series [57], could be a useful tool in assessing the extent to which greenstreet inputs may flesh out the balance sheet of urban ecosystem sustainability.

4.2. Final Thoughts

This paper has introduced the concept of the convivial greenstreet, cited relevant literature across multiple fields, observed some of the more apparent phenomena within a dozen progressive cities, and formulated a normative greenstreets framework. But it is just a beginning, with further reification and application reliant on the participation of interested scholars and practitioners.

Streetside gardening is at its core a bridging system, a *lingua franca* between the diverse actors along the street. From that standpoint, greenstreets are a hopeful phenomenon—a desire that city dwellers have to emerge; to freely engage their neighbors and the diverse life of the street; to both confront and embrace its possibilities and complexities. Such an impulse is an old one: the German expression *Stadtluft macht frei* ("Urban air makes you free") has medieval roots.

In discussing sustainable futures through the integration of biological, social and cultural needs, Miles asserts that conviviality "…leads to a creativity which is localized and self-sustaining, and a basis for sustainability in forms of habitation which reclaim the production of space." ([1], p. 228). Similarly, Bauman writes, "It is in the city that the strangers who in the global space confront each other as hostile states…learn each other's ways, negotiate the rules of life in common, cooperate and, sooner or later, get used to each other's presence and, on an increasing number of occasions, find pleasure in sharing company" ([22], p. 38). Finally, Dovey calls for "new ways of putting roots in place which resist the totalizing retreat in space or time and the paralyzing view that freedom is found in enclosure" [58], p. 175).

This paper suggests that convivial greenstreets in their quotidian guises are already contributing to the long-term collective venture that is the sustainable and gregarious city. As a model, it might well fit on a slate with ongoing projects like Slow City-inflected design and the social aspects of the emerging European City Model ([51], p. 18; [59]). Certainly, as an urban landscape type, the convivial greenstreet merits recognition for the largely positive and potentially transformative contributions it could make to sustainable life in the city.

Conflict of Interest

The author declares no conflict of interest.

Acknowledgments

I thank the L. D. Astorino Companies Endowment and the Department of Landscape Architecture and College of Arts and Architecture at Penn State University for financial support. The Academy for International Studies in Bonn graciously hosted me during periods of field research.

The author took all photographs.

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