論 文 の 内 容 の 要 旨

論文題目 **Visual connectivity of the everyday outdoors as landmark in the dense vernacular fabric of central Tokyo:** Morphological approach in Wakaba, Shinjuku

（東京都心の高密度都市組織内における都市の目印としての日常屋外空間の視覚的接続性に関する研究：新宿区若葉地区を対象とした形態学的アプローチ）

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Strolling among the small pockets of narrow back alleys in an otherwise globalized central Tokyo weaves a singular relationship to the urban space and leave the impression of coherent fabrics with a good readability. The eye of the observer can be stimulated by the everyday urban landscapes embedded in densely built-up neighbourhoods of the old town and their unique identities: It finds beauty in the quiet atmospheres displayed within often carefully planted resident's outdoors, the complexity of the visual skins made of different materials from the buildings to the open spaces and their arrangements, but also the continuous homogenization with global standards constructions (standard designs for massive buildings and their outdoors) and scale (large against small human scale). The vernacular landscapes of privately owned outdoor spaces made by residents are concerned by this anonymous and continuous mechanism of transformation. Despite the lack of built legacy from the pre-modern Edo period and the dynamic of global transformations coupled with a perpetual incremental renewal and change, there is a persistence of a distinct local identity, visually assessable (given the presence of many devices for the creation of privacy, in spatially cramped conditions). The analysis of such singular cognition attached to the small-scaled neighborhoods can help to apprehend vital elements shaping their (picturesque) atmosphere.

The densely built-up small-grained urban fabrics of the historic urban landscape (HUL) in metropolis, some of them qualified as informal patterns or hotspots of disaster hazards- because of their narrow streets and flammable materials, were often the urban popular pockets for a long time and mostly the target of clearances and redevelopments. However they display distinct atmospheres and can help to apprehend and mitigate the overpowering large scale of the metropolis. In Tokyo, the regeneration of these areas is complicated by the mix of modern and older urban forms, combined with economic pressures from the global real estate market and political choices. The fragile conditions of such fabrics cannot resist the quick turnovers of urban shapes. However, the evaluation criteria for the old dense urban fabric, hardly takes into consideration the atmosphere emanating from the morphogenetic singularities of these patterns or the value of small proportions in narrow alleys and carefully tended outdoor structures, as landmark. These features are easily destroyed or affected by such transformations like merging of

formerly small-scale-plots, broadening of alleys that were only accessible for pedestrian or cats, and government-advocated "consolidation" of the urban fabric with inappropriately huge condominiums right next to tiny wooden buildings. The small proportions, the connective characteristics of outdoors' fabric and the richness of the ambiguous public-private status are highly vulnerable to careless redevelopment. The emphasis of conventional planning is mostly on the streetscape of main thoroughfares, whereas the interior of urban blocks is neglected, forgetting subtle types of small outdoors, such as tiny lanes, pocket backyards, or "residual" spaces in between houses. I argue therefore that, the perceived atmosphere results, in some cases, from a coherent dense structure at the smallest scale.

The distinct method I introduced, belongs to the fields of morphology and phenomenology by interrogating the relationship between a subject and the urban space. It refers to some extent to spatio-configurational analysis, however being distinct from network study field. The site- selection process while strolling in Shinjuku, the resulting analytical method, and observation of the field, focused on the visual sense. Such "visual behaviour" toward the different outdoors led to an analytical method based on the field's viewpoint assessment, with restricted visual tools. The curiosity stimulated my stops in some vernacular small-grained fabric from the old centre, whether through the tiny visual breakthroughs toward the block's innermost, the wellbeing in nice green displays made by residents, the evidences of landscape elements and more fundamentally the possibility to get a coherent image of the place. Such aspects reinforced intuitively the sight, as being a strong media to isolate urban entity and to shape a language ("visual behaviour") adapted to each specific structure of the urban fabric and its scale. Besides the reading of the element of the landscape and the urban morphologies, the viewpoints give precise information on the transparency or the blockage, the long or short visual occurrences, etc. They draw a sort of "visual pattern", elaborated by each walker and which shape the walker appropriation and imaginary of the place. Hence, the viewpoints on the contrasting outdoors became not only a tool for electing the area of study but the object itself of this research. I focused on the living areas of Wakaba's 2nd and 3rd districts as a case study of the vernacular dense fabric of the capital. Wakaba was an informal and popular neighbourhood during the late Meiji. It consolidated over the time and shaped a strong community, which overcame the WWII damages. During Japan's inflated asset bubble of the 1980s with skyrocketing land prices, in between the nagaya of Wakaba, named "the Little Asakusa", the atmosphere used to be very lively. The place slowly transformed into a service and quiet residential area. The resulting densely built-up fabric, carefully arranged with greenery, contributes to the beauty, the wellbeing of the place and the pride of the elder residents, evoking a nostalgic "atmosphere of Shitamachi". However, Wakaba is nowadays labelled at the highest risk's rate in case of disaster because of its dense fabric of juxtaposed wood houses and tiny outdoors. There is a need for elaborating further specific designs and criteria of analysis to underline the specificities of their distinct atmospheres, for a better regeneration of such urban fabric of the landscape. Fundamentally it pledges for the reconsideration of the multiplicity, the complexity and the elementary organic scale. Such criteria are attached to the

cognition of a place and shape the intelligibility/ readability of Wakaba's vernacular and densely built-up structure. Some scholars analyzed the spatial conditions of the vernacular old urban fabric: Conzen studied its morphogenesis; Sitte found rules behind the artistic effect emanating from the outdoors' arrangements of the organic old center; Alexander also highlighted the organic process behind such (small or average scale) urban composition. In parallel, Lynch, Gehl, Salingaros, Antrop, and other scholars from the studies of biophilia and the phenomenology emphasized the cognition of space and its emotional relationships, by stating as an example, different criteria [such as complexity, human scale, coherence, enclosure, transparency, imageability, linkage, etc] behind the readability of a place and its perceived positive or anxiogenic assessment. The latest works on small Tokyo also emphasized this aspect, by binding density, intensity and resilience. The Vienna Memorandum, apprehended the visual relationships within the HUL with methods applied mostly for the long distance scenic views or the skylines at the large scale, or through the transmitted visual illustrations. However the small scale viewpoints, as valuable landmark from the cultural landscape was never approached. Actually, additional criteria on a cognitive basis could help in determining the local visual landmark, part of the identity of such small-grained densely built-up urban features. The analysis of the viewpoints on their outdoors can subtly reveal another type of cognitive landmark for such place.

The morphological characteristics of the field and the modes of appropriation from the residents, partly define what they consider as valuable from their plot to the neighbourhood. Using analytical tools based on the eyesight is an alternative on the evaluation of the richness of a place. I introduced the viewpoints analysis in Wakaba neighbourhood, as both sides: a morphogenetic and configurational spatial analysis of outdoors' transformation and the cognitive observations of the features on the field. It is based on the elaboration of a range of visual tools applied to a layered analysis of the outdoors, through maps from different periods for the first side. Such tools are simple view lines from the public space, which are blocked by a construction or transversal. The method supposes different statistics on the evolution of the resulting view lines' maps. It permitted to get an analysis, adapted to the small-grained fabric, finer than with usual morphological approaches, and to define a sort of visual landmark of the place. By overlapping layers of outdoors from the past times to nowadays, the embedded structural spatial arrangements can be highlighted. The observation of the field's "visual skins" secondly implemented the approach with usual criteria of the spatial readability. The visual tools can also functionally help to apprehend the rules behind the positive emotion provoked by the complexity of the visual field, by identifying the visual connective capacities of such outdoors, and by introducing a new notion, the visual connectivity.

I borrowed the notion of connectivity, stemmed from the Graph Theory, to better grasp the structural and functional characteristics of the dense outdoors that I identified with the visual tools. For Diestel (2005, p.12), the connectivity "corresponds to the minimum number of elements (nodes or edges) to be removed in order to disconnect the remaining nodes from each other" (e.g. for the structure to lose its viability). Thus, in the nodes and paths dialectic, the connectivity can be used for spatial configurational

and urban network analysis, whether through calculations or through field's analytical methods. With calculations and observations of the nature, the ecological landscape field proposed both respectively structural and functional connectivity for fauna and flora. The space syntax analysis used the notion of connectivity, exclusively as calculation results to predict human behavioral responses in public spaces of the cities. Differently, I developed the notion of visual connectivity from the viewpoint analysis, as a landmark specificity of Wakaba dense patterns. It supposes supplementary tools based on visual nodes and paths and their progressive structuration, shaping a sort of visual "skeleton" or a visual structural matrix, that I named the structural visual connectivity. The field's analysis of the "visual skin" comforted such model with the definition of the functional visual connectivity.

The viewpoints analysis is a singular and not yet implemented approach for the consideration of a local visual urban identity and a contribution to the ongoing research on the outdoors morphogenesis, in the case of very dense fabric in the vernacular Tokyo. The visual tools can evaluate the richness displayed through the tiny everyday open spaces in such small-grained blocks. It reveals singular visual patterns/identity in the different parts of the neighborhood. The method could highlight some qualities of the visual scenery in the blocks and their innermost, such as being visually open/closed, lively/monotonous, their organicity, etc. The structures of the visual connectivity represent richer visual experiences, where the walking paths in private areas of the block are limited to few accesses. They highlight the inner-richness of the block and the back alleys. They call back to the embedded vernacular/ organic order, shared by the individuals/walker, through the layers of spatial appropriation's practices, but also the stimuli from the outdoors at the smallest and densest scale of the fabric. Such distinct outdoors are not residual and play a role for the maintenance of the local atmosphere. Moreover, I identified the dis-connective configurations, which are potential threats impacting on the fabric's dislocation and the atmosphere. They can benefit any place-making stakeholders, starting by designers. The method is refined and enabled observation of processes, usually taken over from emotional expressiveness of the place. It is a contribution to the place making analyses, by broadening the scope and the ordinary practices. Each actors shaping and regenerating the space should recognize and compose with the visual landmark, the visual connectivity in such place, as a supplementary criteria, but also pay attention to the threatening dis-connective patterns. In conclusion, the methodological advancements of the viewpoint analysis [as both, a visual spatio-configurational approach to get the coherent visual structuration of Wakaba and a cognitive functional approach on the field to correlate the structural results with the reality of the atmosphere perceived], is a contribution to the analysis of the dynamic fields of morphogenesis of the small-grained dense fabrics and their regeneration processes. The visual landmark and visual connectivity underline part of the visual identity perceived in vernacular place and could further ahead be used for issues regarding the preservation of the HUL.