

## **Grammar of olfactory imagination: Linguistic and spatial logics of smell, memory, and place**

Cities are often understood through their functional and visual dimensions, while everyday sensory experiences that shape how people *feel* in urban spaces remain largely underexplored. Among these, smell is a particularly understudied sense, even though it connects closely with emotion, memory and place. Historically, smells have been treated as nuisances to be removed through zoning and environmental regulations. Such practices risk the homogenization of urban environments, potentially diluting the emotional and cultural ties that link people to place. This study posits smells as an important aspect of urban wellbeing and sensory richness. To build toward this olfactory lens, the study examines over 500 visitor entries from the Scent Library at the Rubin Museum of Art, where participants recalled their smell memories through paired texts and drawings. We combined thematic and semantic coding with text mining and image analysis to identify recurring patterns in how people express smell experience. These analyses form the basis for a dual grammar of olfactory imagination—one linguistic and one spatial—that reveals the mental syntax through which smell mediates memory and attachment. Specifically, the linguistic grammar constructs a co-occurrence matrix that captures a triadic relationship among smell objects, spatial anchors and emotions, while the spatial grammar maps scene logics aligned with Lynch's typologies of path, nodes and edges. Together, the results show how olfactory imagination produces its own cognitive syntax linking everyday experience, extending the visual discourse in urban studies and contributing another building block to the growing body of multisensory experience research.