

The Analysis of the Role of Ambient Smell in the Built Environment and the analysis of the Methods of Used to Investigate its Impacts on Humans in the Disciplines of Architecture and Urban Planning: A Critical Literature Review

Abstract

Studies conducted in different disciplines demonstrate that smell can have various profoundly and extensively a-effects on different-dimensions of human existence. Despite the significant ee-and-effects of smell as one of the environmental variables in the built environment, interior designers, architects, urbanists, and urban planners have paid little attention to it seems that the role of “ambient smell” and the way it its-effects on humans has been given very little attention by interior designers, architects, urbanists, and urban planners. In tThis article reviewed the relevant literature focusing on ,the role of the smell element in architecture-was investigated by reviewing the literature review. The paper then n, through a reviewed particularly of-the studies conducted in the disciplines of architecture and urban planning ,which-evaluatinged the impacts of ambient smell on humans. It also examined-, the methods, tools, and techniques used in these studies-. were examineThe obtained results of these investigations show that there are-revealed four gaps in th: i) e field of studies related to environmental smell and its effects on humans. These gaps include the neglect and underestimation of the environmental element of smell and its effects on humans in the studies and the design processes, ii) the lack of a-standard frameworks, methodologies, and strict empirical criteria and protocols, iii) the use of traditional tools and methods for data collection, and iv) disregard for not using-up-to-date neuroscience technologies, simulation tools-and-methods, and-advanced visualization, and computating technologies. Therefore, it is suggested that to-establish-a standard, expandable, and replicable framework be created by defining-and-conducting comprehensive research aimed-at-investigatinginto the effects of ambient smell on humans. This approach-helps to resolve the existing gaps and exploit the potential of this environmental-variable-ambient smell to create more suitable and desirable spaces-to support-ing human health and well-being.

Keywords: Ambient smell, Built environment, Architecture, Neuroarchitecture, Environmental variables, Odor

1. Introduction

Human life and architecture are inextricably linked to each other. In other words, mMost of the human time is spent in architecture-buildings in a way that it is impossible to imagine living a life-without themit. Today, the vast majority of the world’s population spends more

Commented [WU1]: Sorry to say it frankly...it seems u have had a good general review of the architecture field in terms of ambient smell, but not very ‘critical’, as claimed by the title of the article. To review the literature more critically, u need to discuss outstanding studies in this domain, focusing on the methods each has used, followed by the drawbacks and benefits of the methods used by each study, the findings obtained by each methodology, comparing and evaluating them and so on. And then from these comparisons, evaluations, analyses, and discussions, u can elicit the gaps and key challenges in the field. Then, u can suggest best solutions to the gaps and challenges based on the discussions provided on the existing literature.

Commented [WU2]: Why u have included ‘odor’ in Keywords, but overlooked ‘scent’? As ‘odor’ mostly means ‘bad smell’, I guess u need also ‘Scent’ that means ‘good smell’ in addition to ‘Smell’ that means both bad and good smell in general. So, IF u agree, plz either add ‘Scent’ to the Keywords list, or delete ‘Odor’. NOTE: IF u add something, plz use capital after semicolon(;) like others.

Commented [WU3]: All through the doc., the green-colored parts need to be re-checked by the authors to be what they mean. Here, for example, By ‘architecture’ in your original text, I guessed u meant ‘buildings’, so I modified this way. Note: ‘architecture’ does not mean ‘building’, it just means the art/science of constructing buildings. Accordingly, I modified the way u can see now. Chk plz to be right what u mean.

Commented [WU4]: All through the doc., the green-colored parts need to be re-checked by the authors to be what they mean.

What did u mean by ‘architecture’ in your original text? I guessed u meant ‘buildings’. Note: ‘architecture’ does not mean ‘building’, it just means the art/science of constructing buildings. Accordingly, I modified the way u can see now. Chk plz to be right what u mean.

than 90% of their lives indoors ~~and within architecture~~ (Spence, 2020; Liqun and Yanqun, 2011; Wu et al., 2007; Brasche and Bischof, 2005; Kosonen and Tan, 2004; Klepeis et al., 2001). ~~D, and during the~~ COVID-19 pandemic and subsequent lockdowns, this ~~increased~~ ~~reached up to~~ |100%| in some cities, ~~such as Melbourne,~~ for an extended period, ~~such as Melbourne.~~ ~~It becomes more worrying with many s~~Studies ~~have-indicatinged~~ that built environments affect ~~(both directly and indirectly)~~ all aspects and dimensions of human life, ~~including-such as~~ emotion, perception, behavior, health, and well-being ~~both directly and indirectly~~ (Cooper, Boyko and Cooper, 2011; Countryman and Jang, 2006). ~~Sarah Williams Goldhagen.~~ ~~In her book the author of-titled~~ *“Welcome to Your World: How the Built Environment Shapes Our Lives”*, Sarah Williams Goldhagen maintained that there is no such thing as a neutral environment, i.e., built environments either help humans or harm them. She ~~has~~ also pointed out that nothing plays a significant role in shaping our identity as much as architecture does. This ~~finding has~~ defined such an important ~~ee and~~ role for architecture; ~~such~~ a position and significance ~~that~~ was previously less conceivable (Pedersen, 2017).

Commented [WU5]: It seems to be kind of exaggeration. Plz chk more and if you are not sure about that, u can simply put the word 'roughly' before the percent: "...increased to roughly 100% in..."

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