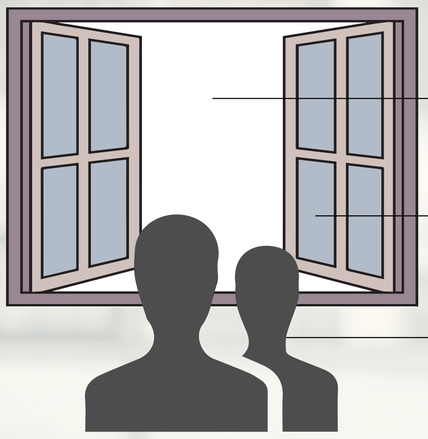

Outside View Quality

View Quality Index (VQI)
Ko et al. (2021)

content

Dynamism

clarity

access

Dynamic view
Perception

Dynamic
Representation

Dynamic view
Evaluation

Dynamism of View-Out in relation to Daylight

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Research Summary

The importance of access to a view to the outdoors and exposure to daylight through a window on the health and well-being of building occupants has been recognised in the fields of building science and environmental psychology. Especially for urban citizens who spend most of their time indoors, the long-term health implications for having a quality view and a sufficient amount of daylight are profound. Although the level of satisfaction with a view-out is inherently subjective and observer-dependent, a recent study by Ko et al. (2021) has defined visual access, clarity, and content to be the three determining factors for view quality. Furthermore, previous studies have suggested that certain features of the view content result in a higher quality, including dynamism, such as human-related activity, traffic, natural and weather-related movements. However, the extent to which movement and daylight in views provides occupants with further awareness of their surroundings has not yet been investigated. Similarly, there is a limited number of existing view-out indicators and research methodologies that acknowledge dynamic and temporal aspects of the view. In addressing the current gap in research on view-out, this thesis aims to examine specific effects of dynamism in relation to daylight on view-appreciation through the use of fisheye lens videos and VR technology.

Dynamic Perception

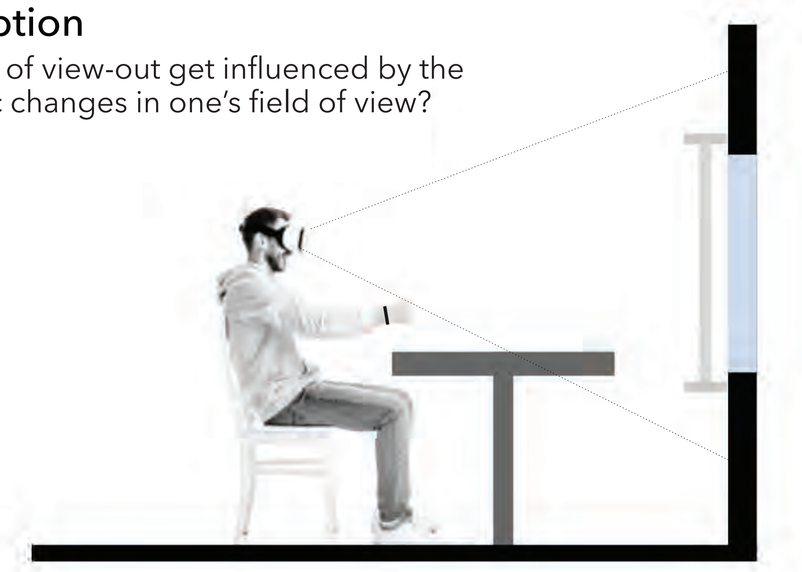
Does the perception of view-out get influenced by the presence of dynamic changes in one's field of view?

Eye-Tracking Measurements

Heart Rate Variability

Electrodermal Activity

Subjective Questionnaire



Dynamic Evaluation

A new methodology for conducting research on view-out by incorporating its inherent dynamic qualities whenever they may matter to its evaluation, with a dedicated focus on changes related to daylighting conditions

Dynamic Representation

A new research framework for representing view scenes

Canon RF 5.2m F2.8L
Dual Fisheye lens
+
Canon EOS R5
+
Adobe Premiere Pro

Equirectangular
Projection
+
Pico Neo 3 Pro
Eye VR HMD

Daylight

View

Environmental Contexts - built environment density

(1) high density

(2) medium-density

(3) low density

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Yunni joined LIPID as a PhD candidate in the Doctoral Program of Civil and Environmental Engineering (EDCE) in September 2021. Yunni has previously pursued B.F.A in Interior Architecture at Rhode Island School of Design (RISD) and B.A in urban studies and cognitive neuroscience at Brown University. She also worked as a lighting designer and a consultant for an architectural firm in Germany and received various fellowships and grants in the past to participate in design exhibitions in Italy, Morocco, Portugal, France, and the United States. By learning from the field of daylight studies, Yunni hopes to better understand human impact as well as biological capability towards spatial perception.

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