



The Value of View

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Windows – Everywhere!



Photo copyright Lisa Hescong 2019

Windows serve many functions:

- Security
- Weather protection
 - Rain, wind, snow
- Heat Flows
 - Solar gains, heat loss
- Ventilation
 - Filtration (insects, dust)
- Communication, egress
- Privacy
- Daylight
 - Modulation
- View



View was the big winner in my “daylighting and productivity” studies !

In three populations, 7 outcomes

2003

More consistent effect than daylight illumination

- Call Center n = 105 workers
 - **+7% to +12%**
 - Worker speed
- Desktop study n= 201 professionals
 - **+10% to +25%**
 - Improved working memory
 - Less fatigue, fewer complaints
- Schools study n= 9000 students
309 classrooms
 - **+7% to +30%**
 - Improved math & improved reading scores



Poor Workplace Access to Daylight and Views

- Real estate pressures force deep plate buildings
- **67%** of existing California office space has no potential for daylight illumination
- **37%** of American office workers say they have no access to a window view during their workday

The New York Times

Don't Get Too Comfortable at That Desk

By STEVE LOHR OCT. 6, 2017



Renovated Microsoft offices have a variety of work spaces for employees. Left, a phone-booth-style room for privacy, and right, an isolation room. Stuart Issett for The New York Times

We'd all like to work in a "Healthy Building"

"Biophilic Illusions"
and
"Technologic Nature"

- Is simulated health acceptable ?



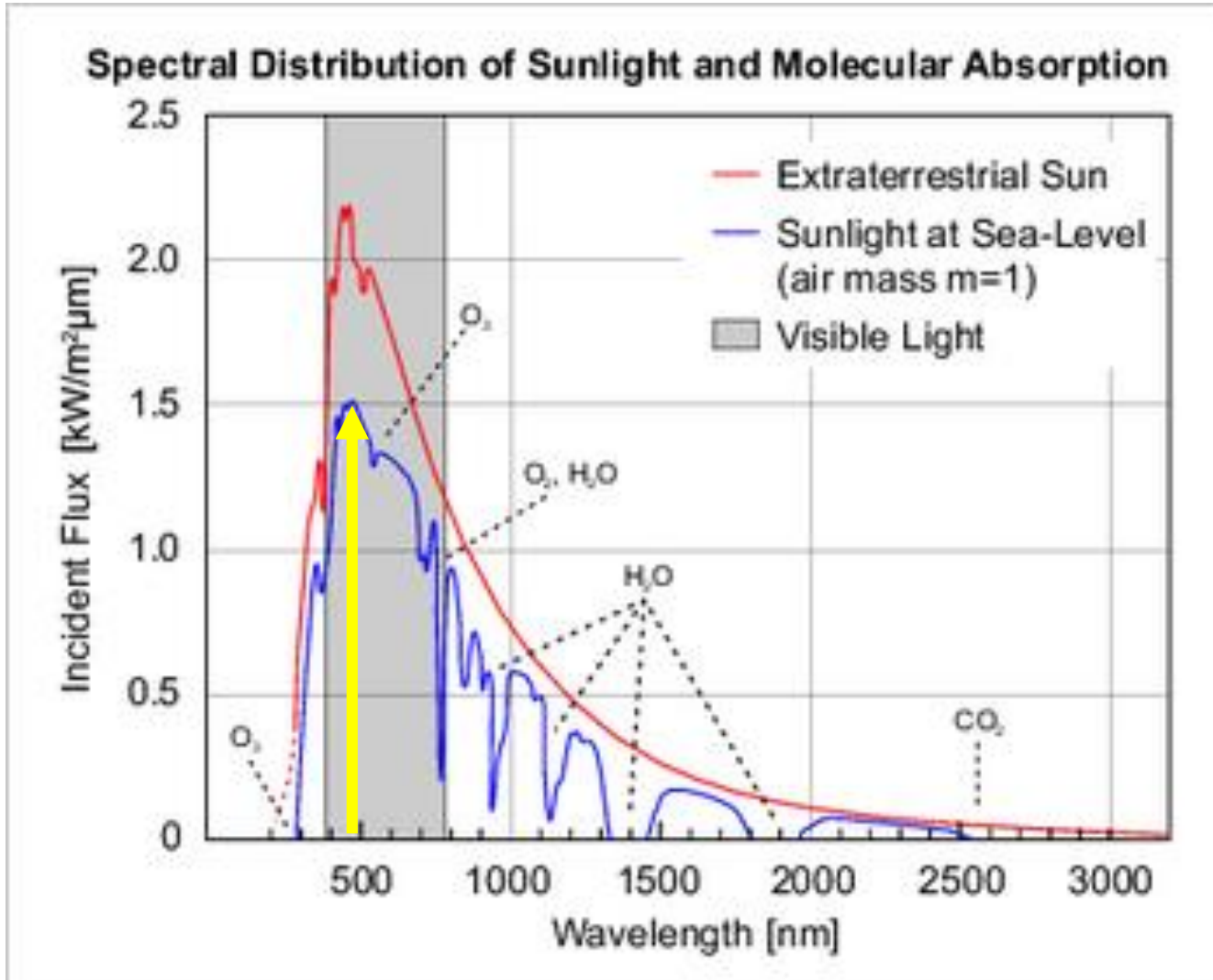
Simulated Views are big business

- We have the technology
- Should we use it?



Lumina Tower, San Francisco,
Imagineering by Obscura

Circadian stimulus comes
from what we look at

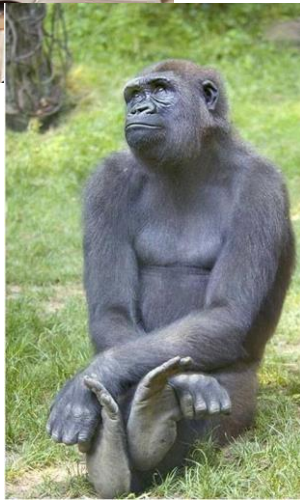


Americans spend 47% of their waking hours “Mind Wandering”

Glancing, up and usually to the right....Preferably out a window...

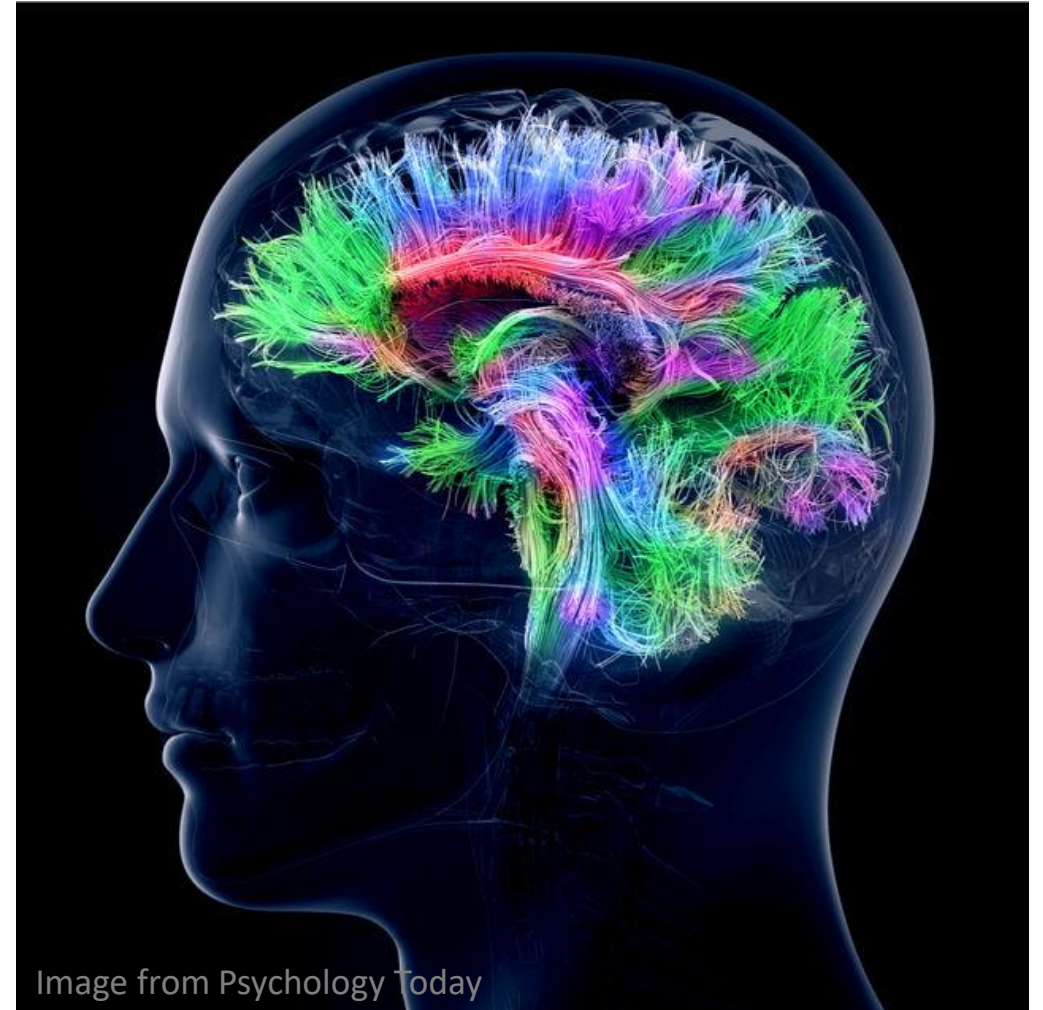


Killingsworth and Gilbert,
Harvard U, Science,
Nov 11, 2010
N = 2250



Default Mode Network (DMN) and Mind Wandering

- Identified in 2001 via fMRI brain scans
 - Thought of as the brain's resting state
 - Active between intentional "tasks"
 - But, equally energetic as tasks !
- Concurrent with Mind Wandering
 - The brain flips back and forth between task networks and DMN about every 2 ½ minutes
- DMN now understood to be central to self-awareness
 - "the Autobiographical Self"



Mind Wandering = “Insight”

- The more people ‘daydreamed’ :
 - Larger working memory
 - Better long term ‘memory consolidation’
 - More planning for future actions
 - Better incubation for creative problem solving

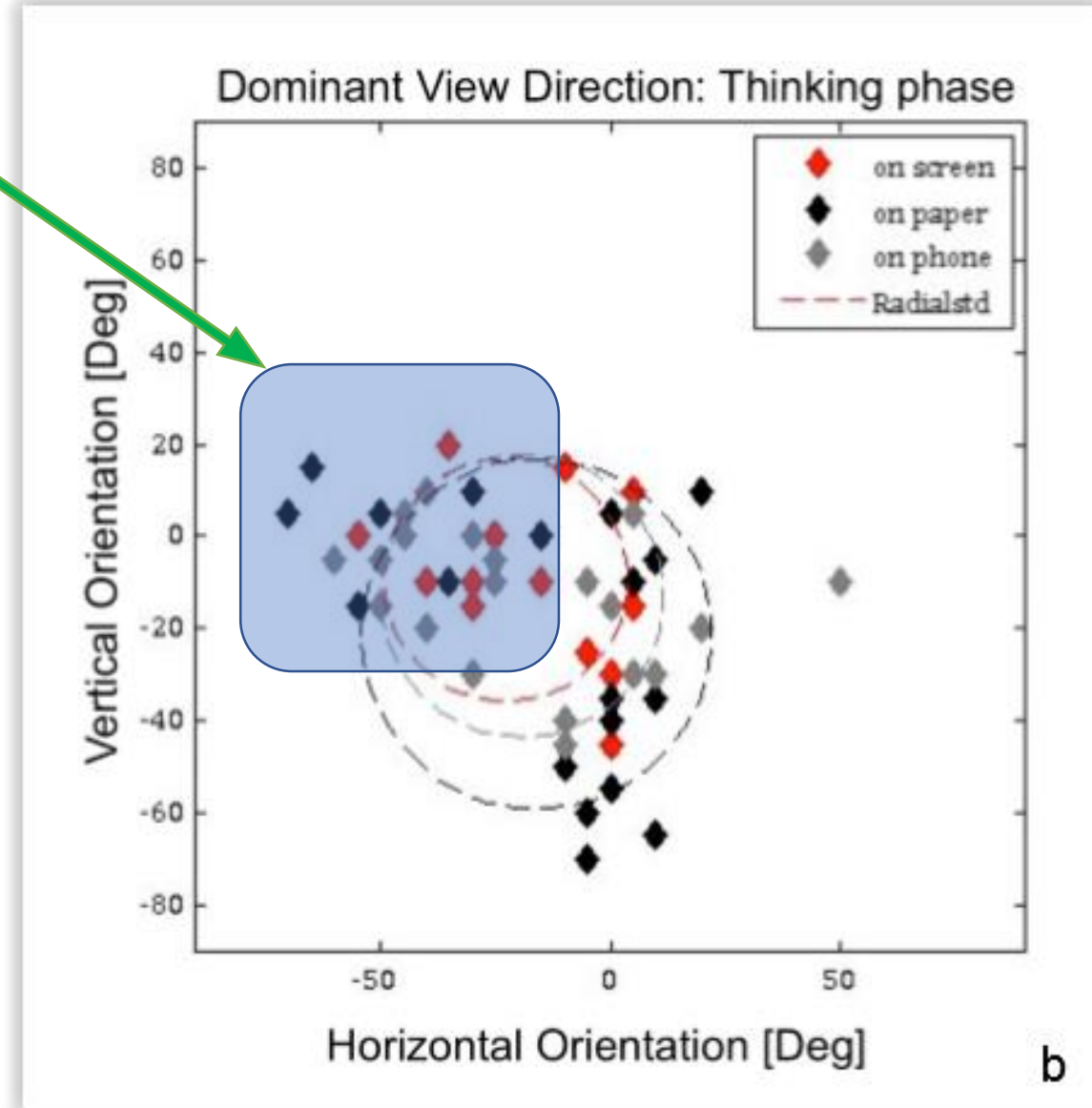


*“Your brain is working for you
even while you are resting...”*

EFPL Studies Gaze Direction

- While working at a desk
 - 3 task types
 - Computer, phone, paper
 - 4 phases
 - Input, thinking, output, interaction
- About 40% of all task time
 - Most often while “thinking”

*Looking out
the window*



Sarey Khanie et al. (2013). Investigation of gaze patterns in daylight workplaces: using eye-tracking methods to objectify view direction as a function of lighting conditions. In Proc. of CIE Centenary Conference 2013 "Towards a New Century of Light",

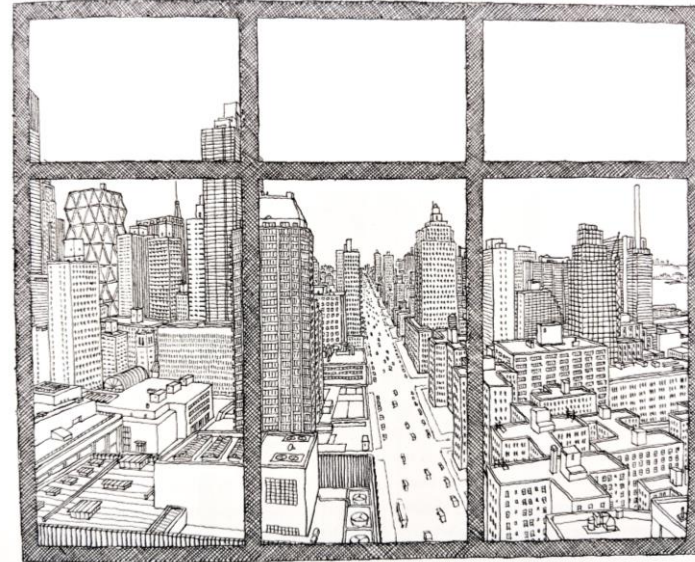
Mind wandering while working

- Per Harvard study, people mind-wander most often while at work
- People are often unconscious of glancing out a window
 - Every minute or two...
- Sense of time changes
 - Time passes slowly while bored
 - Time passes quickly while daydreaming



A mental balancing act

- Inward v outward
- Compression v expansion
- Mental focus v sensory input
- Work v day dreaming
- Present tense v time travel
- Fantasy v reality



Images from Matthew Pericoli:
“The City Out My Window” and
“Windows on the World”

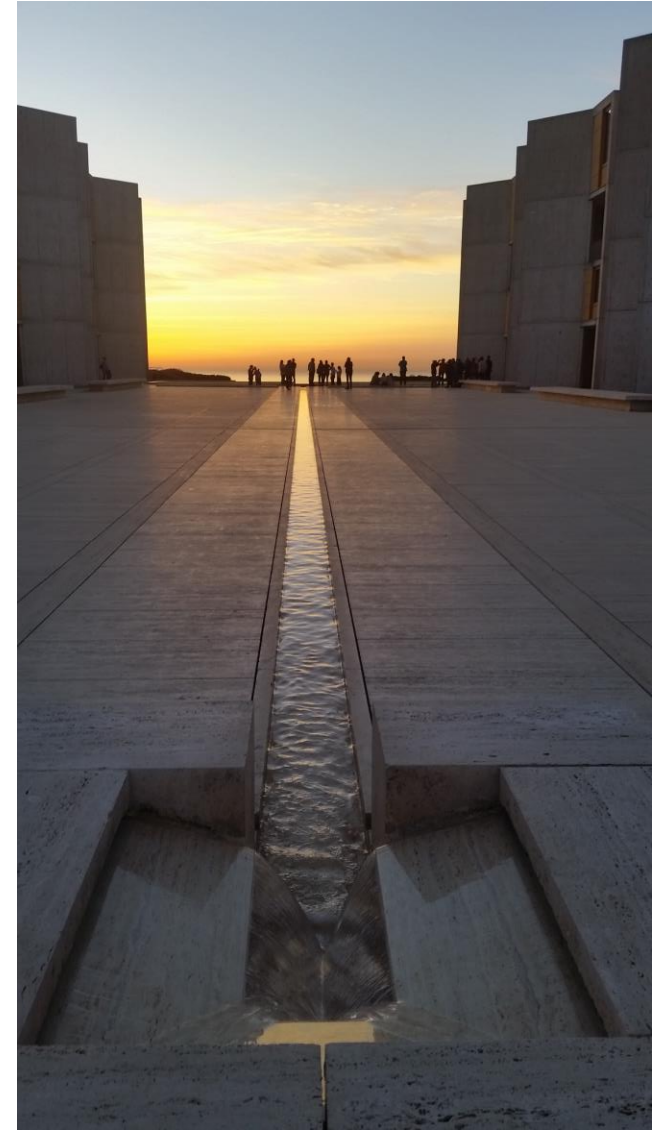
Great architecture celebrates the view

- Creating social focus
- Reinforcing cultural context
- Expressing deeper philosophies



Wayfarer's Chapel, Lloyd Wright, architect,
Palos Verdes, California

Salk Institute, Louis Khan, architect,
Laguna, California





Coming Soon:

*Visual Delight: Daylight, Vision and
View in Architecture*

MIT Press 2020

Thank you for your interest !

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Julius Exner, 1900, Girl from Fano, Velux Window Museum