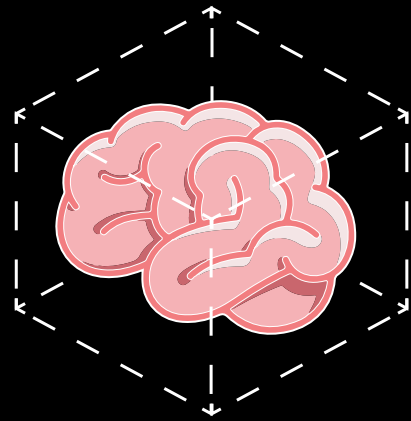
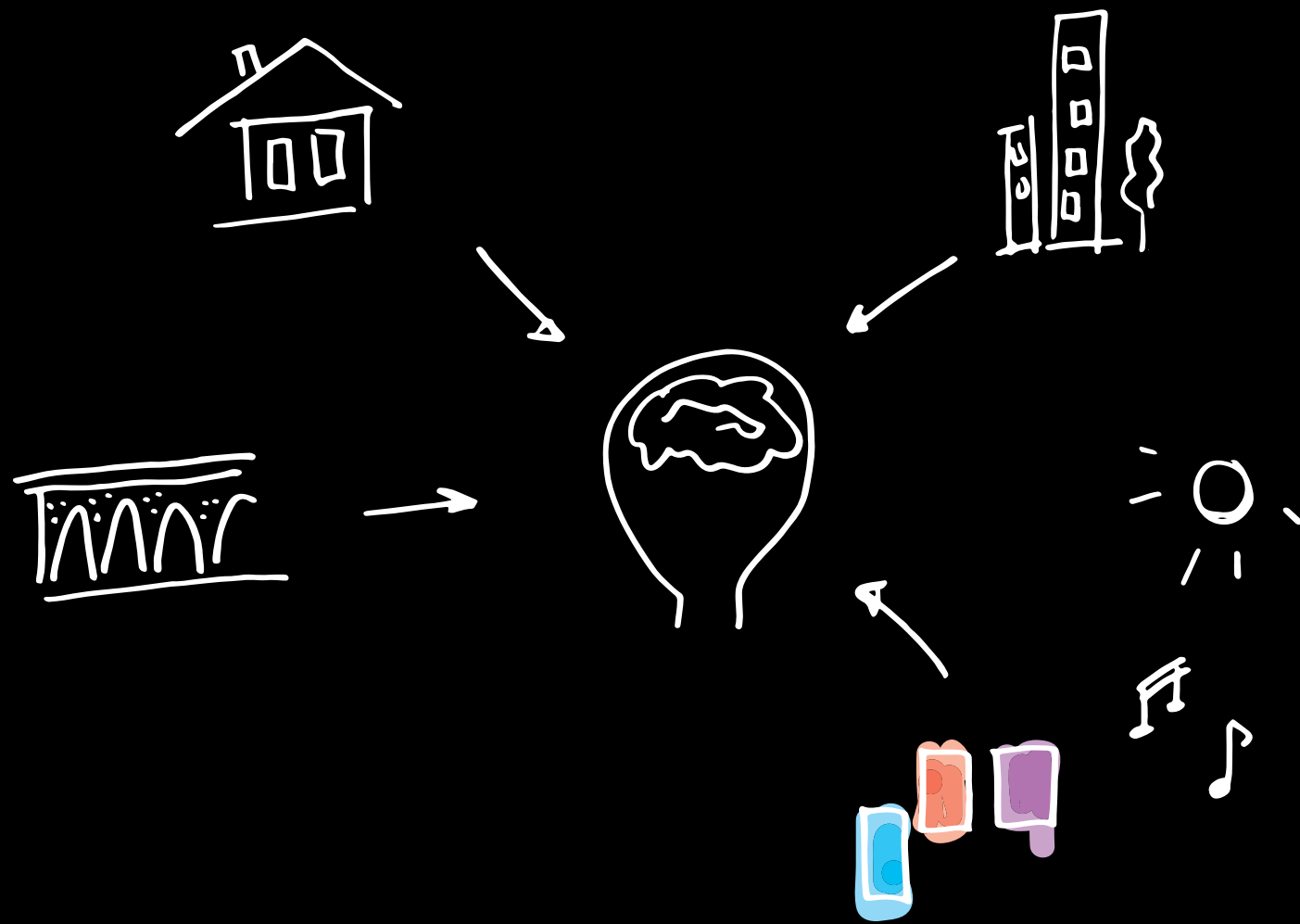


space
for the brain



ruimte
voor het brein

*ground for focus and creativity for every brain
graduation project explore lab
lauren broshuis
april 2020*





Faculty of Architecture

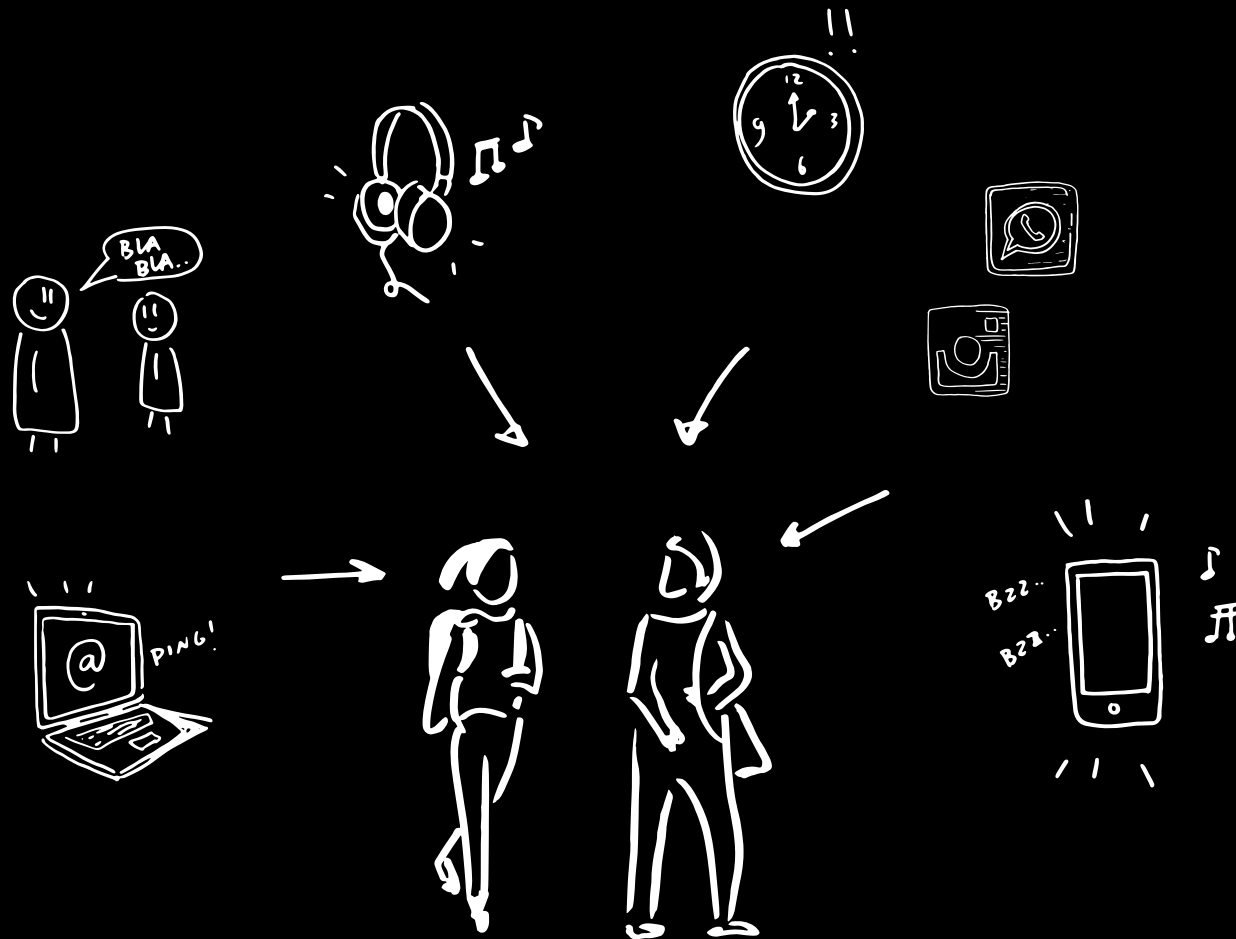


stimulate creativity
stimulate well-being

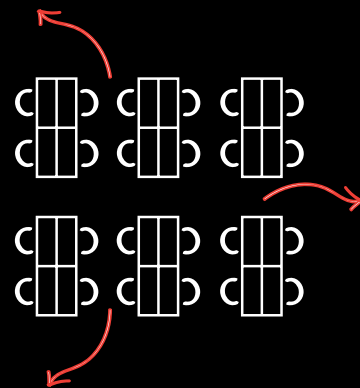


overstimulated

The Human Brain is Loaded Daily with 34 GB of Information

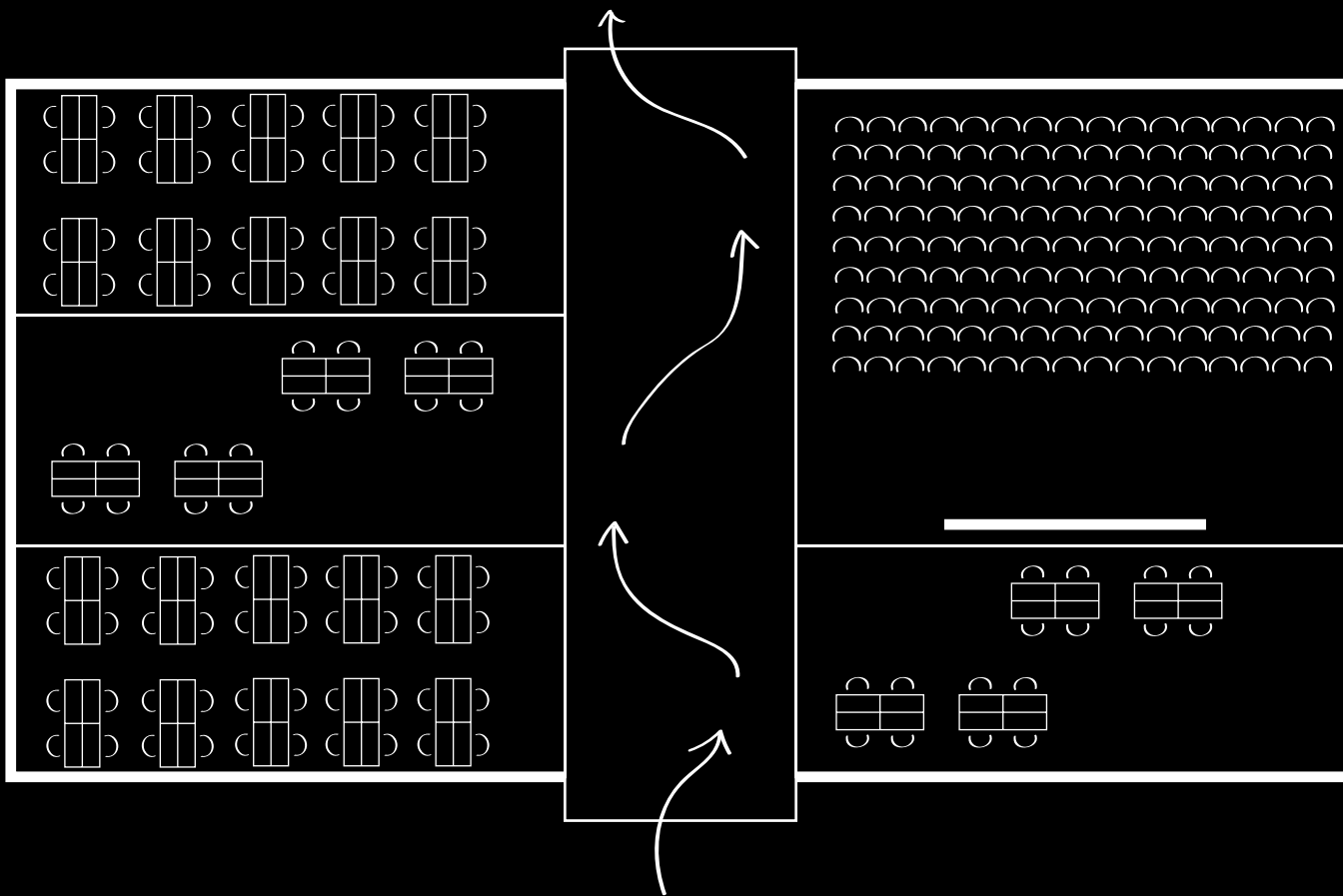


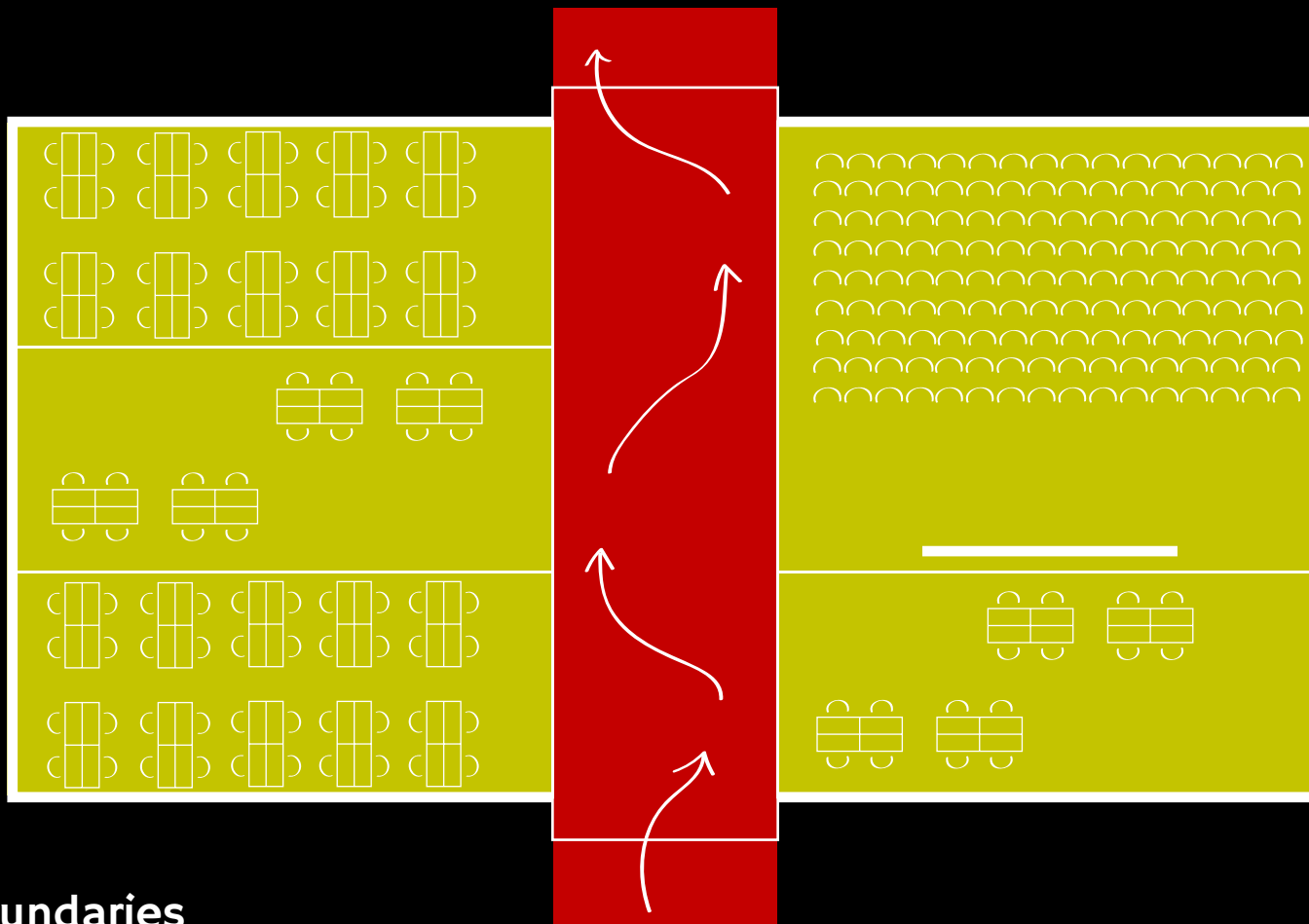
Through mobile phones, **online entertainment services**, the Internet, electronic mail, television, radio, newspapers, books, social media etc. people receive every day about 105,000 words or 23 words per second in half a day (12 hours) (during awake hours).



open office trend



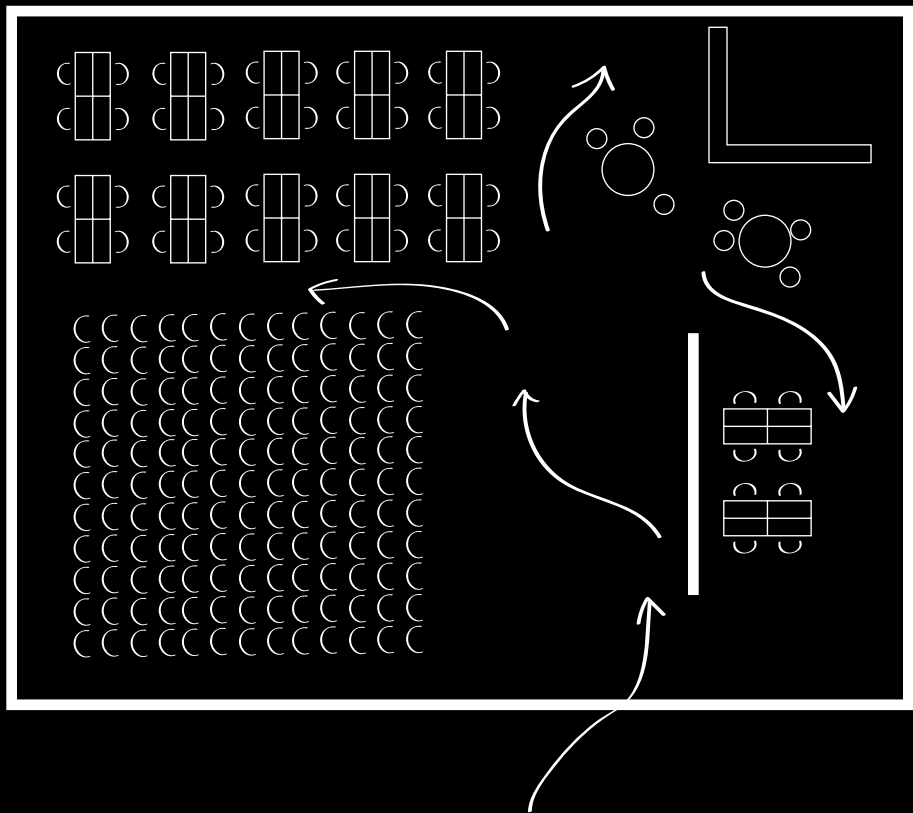


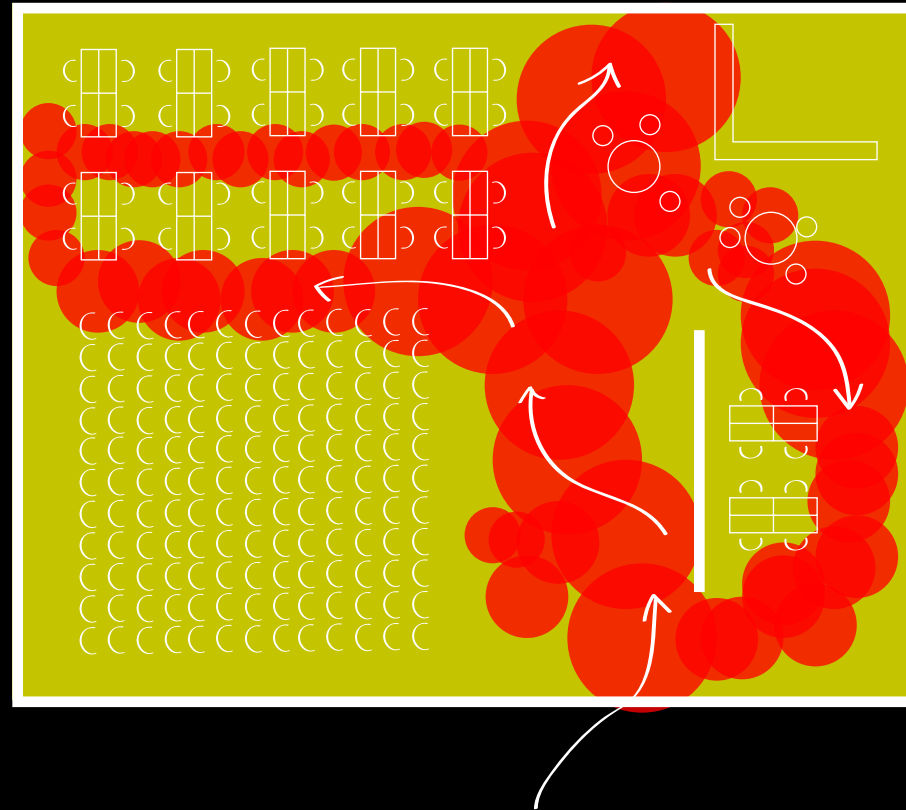


- + clear boundaries
- + less distractions / overstimulation
- little interaction
- less 'lively' environment

Arizona State University







- + lot of interaction
- + 'lively' environment
- lot of distractions (overstimulation)
- no clear function









Open office plans are as bad as you thought

The Open Office Concept Failed. So, What Now?

Google got it wrong. The open-office trend is destroying the workplace.

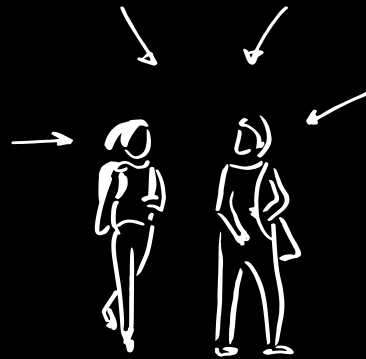
Open offices seem great — until you work in one

Why Open-Plan Offices Don't Work (And Some Alternatives That Do)

The impact of the 'open' workspace on human collaboration

Why It's Time to Ditch Open Office Plans

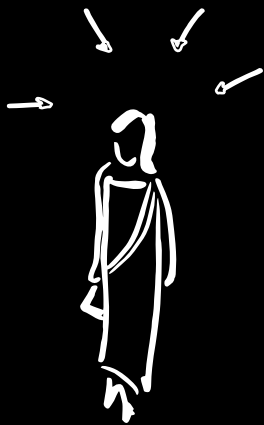
Facebook's Utopia, Our Nightmare: Open Offices Are Destroying Productivity



no one-size-fits-all



hyper-sensitive



younger



extravert



autism



introvert



stressfull



experiment

Orange Hall



Studio Space



BK Library



Canteen

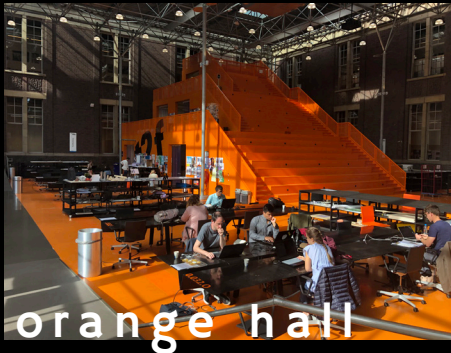


Model Hall



Stairs





orange hall

- pleasant
- comfortable
- stimulating
- exciting
- peaceful
- controlling



studio space

- pleasant
- comfortable
- stimulating
- exciting
- peaceful
- controlling



bk library

- pleasant
- comfortable
- stimulating
- exciting
- peaceful
- controlling



ketelhuis

- pleasant
- comfortable
- stimulating
- exciting
- peaceful
- controlling



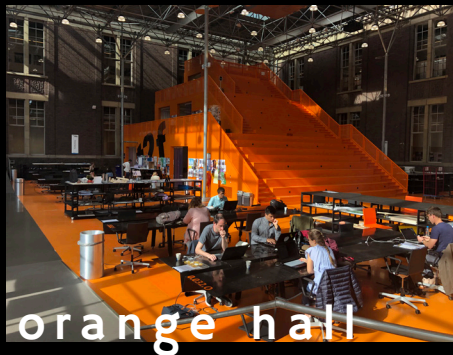
model hall

- pleasant
- comfortable
- stimulating
- exciting
- peaceful
- controlling



stairs

- pleasant
- comfortable
- stimulating
- exciting
- peaceful
- controlling



pleasant
comfortable
stimulating
exciting
peaceful
controlling



pleasant
comfortable
stimulating
exciting
peaceful
controlling



pleasant
comfortable
stimulating
exciting
peaceful
controlling

distracting:

background noise
other people
colour
spatial measurements

other people
spatial measurements
background noise

background noise
other people

pleasing:

daylight
spatial measurements
other people

daylight
objects
spatial measurements

daylight
spatial measurements
other people
aesthetics
materials
colour



studio space

- pleasant
- comfortable
- stimulating
- exciting
- peaceful
- controlling



ketelhuis

- pleasant
- comfortable
- stimulating
- exciting
- peaceful
- controlling



stairs

- pleasant
- comfortable
- stimulating
- exciting
- peaceful
- controlling

distracting:

- background noise
- other people
- objects
- colour

- background noise
- other people
- objects
- materials

- other people
- background noise
- colour
- aesthetics
- spatial measurements
- objects

pleasing:

- daylight
- spatial measurements
- artificial light

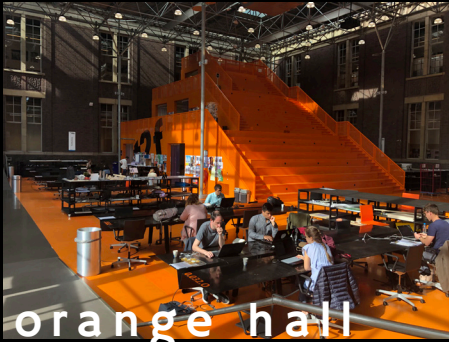
- aesthetics
- materials
- daylight
- spatial measurements
- objects
- colour

- daylight
- colour

high interaction



low interaction



orange hall

- small talk
- use earplugs
- talkative to others
- explore around
- phone call
- discussion
- group meeting



studio space

- use earplugs
- small talk
- talkative to others
- discussion
- make model
- explore around
- group meeting
- tutorial / phone call



bk library

- work individually
- use earplugs
- think out task
- explore around
- creative ideas



ketelhuis

- small talk
- talkative to others
- phone call
- discussion
- explore around
- use earplugs



model hall

- make model
- small talk
- talkative to others
- explore around
- use earplugs
- phone call / tutorial
- creative ideas
- discussion / group meeting



stairs

- phone call
- small talk
- talkative to others
- explore around



personality



environment

personality

introvert



extravert

morning-evening person / distracted / breaks /
time at the faculty / creativity / focus

mental disorder / age / gender / current mood

external factors



internal factors

focus is stimulated by...

noisy environments

colour

surrounded by working students

music

exercising

reading

nature

good night of rest

quiet environments

meditation

creativity is stimulated by...

noisy environments

colour

brainstorm sessions

conversations with others

other media

reference projects

music

exercising

reading

nature

good night of rest

quiet environments

boredom

meditation

creativity



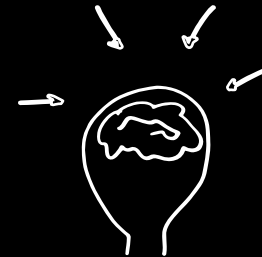
extravert



external factors



introvert



internal factors



introvert



**more stimulating /
exciting**



extravert



**prefers to study
@ BK**



more pleasant/
comfortable



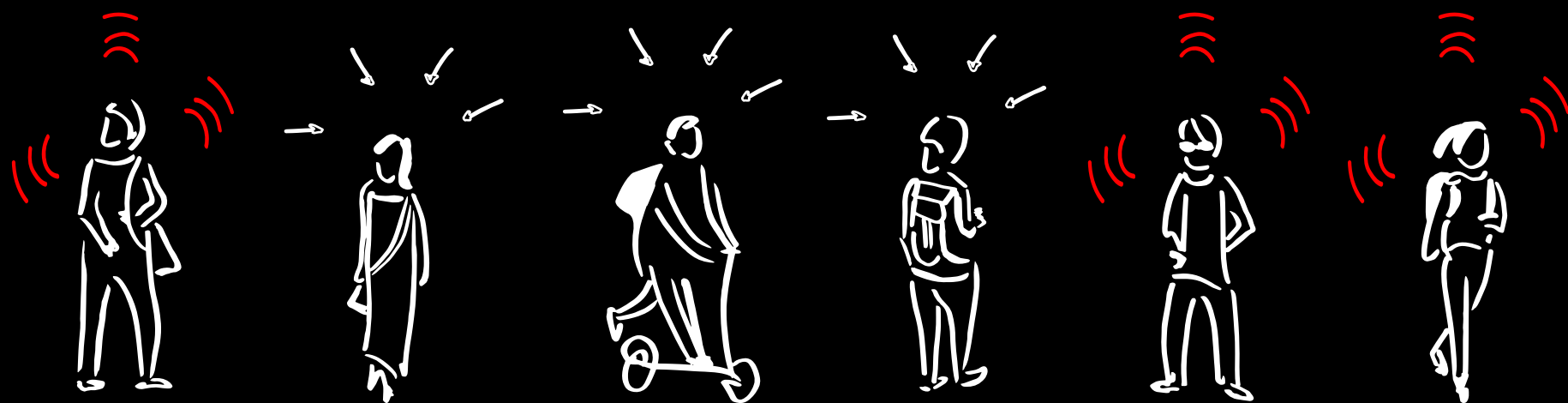
prefers to
study



more stimulating /
exciting



more
interaction

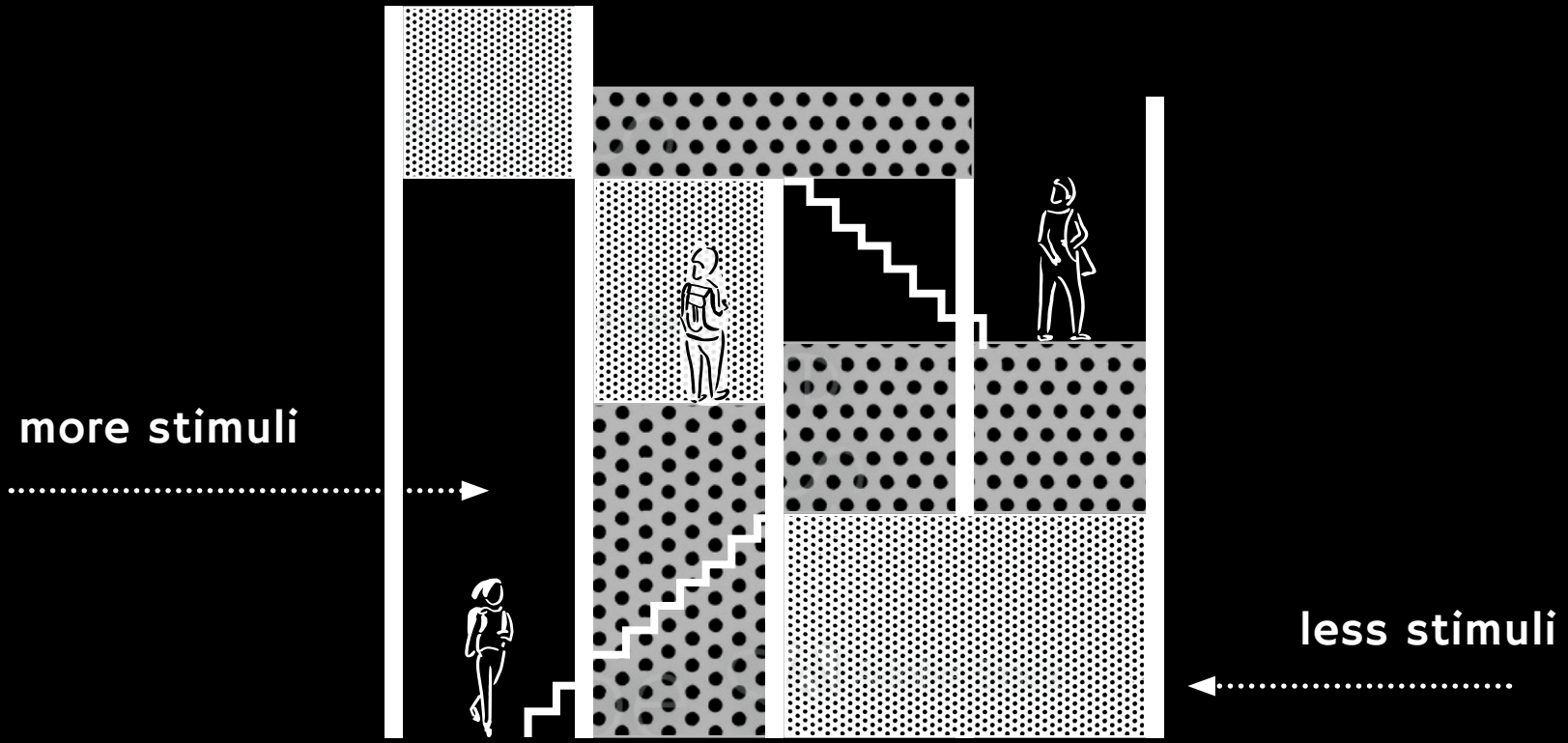


everyone perceives an
environment **differently**



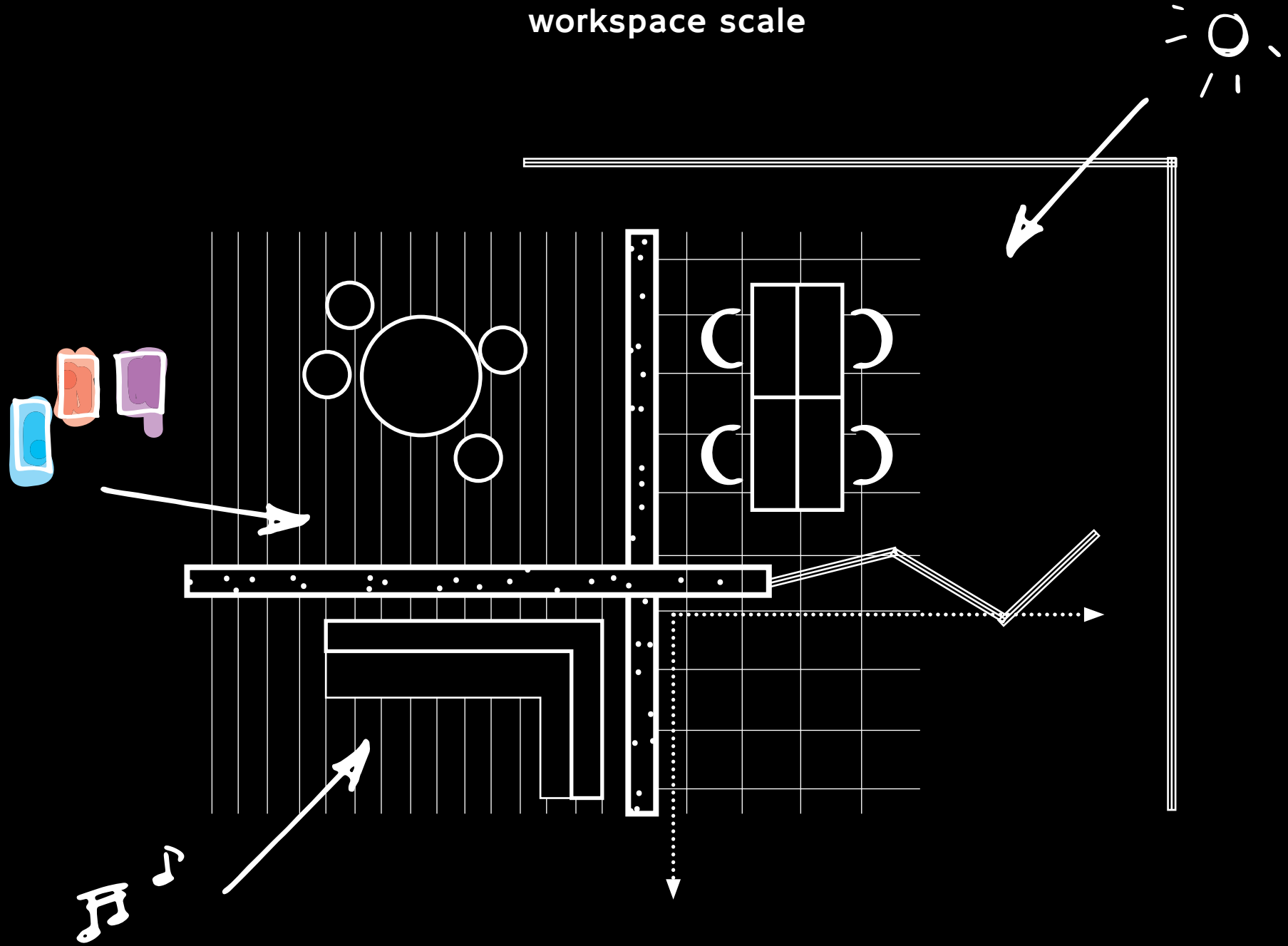
building should **serve every user**, instead
of designing for the average person

building scale



students build their workspace
inside this gradation of stimuli

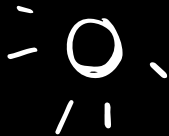
workspace scale



design input



> acoustic insulation
walls, panels, tables



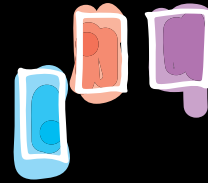
> use of light
maximise daylight, limit
blue light after 5/6 pm



> be aware of other people
distracting but also desired;
find balance



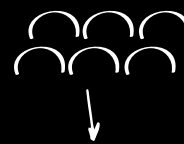
> spaces with high
ceilings is desired by
students and stimulates
creativity



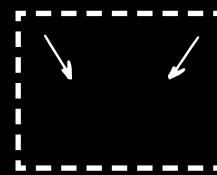
> careful with colours
too bright can be distracting,
white is a good basis, yellow
can stimulate creativity



> space for interaction
stimulates creativity



> space for presentations
adaptable walls/elements?



> room of boredom
box, no internet, no distractions,
to stimulate focus and
creativity, also meditation

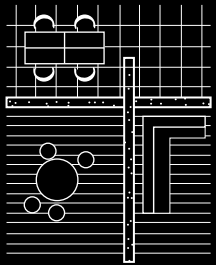
design input



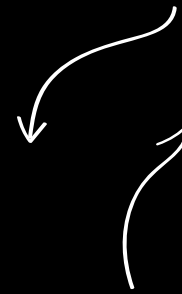
> nice break spots
break every 1.5h for recovery,
this should be stimulated



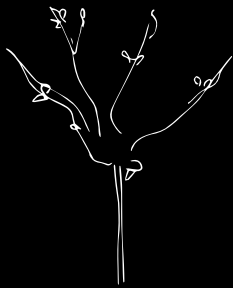
> napping zones
taking afternoon naps is
beneficial for productivity



> individual workspaces
quiet if desired, based on a
person's needs; flexible /
adaptable elements



> stimulate movement
good for brain, creativity
and focus; outside and
within building



> nature / courtyards
good for focus & creativity



> smart building technologies
to stimulate user comfort

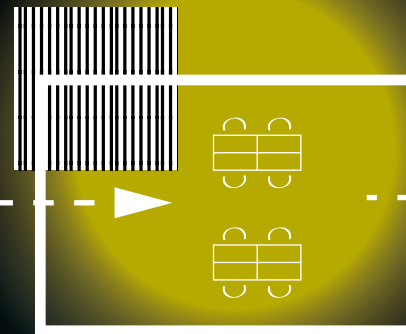


> exposition space
for creativity

design process

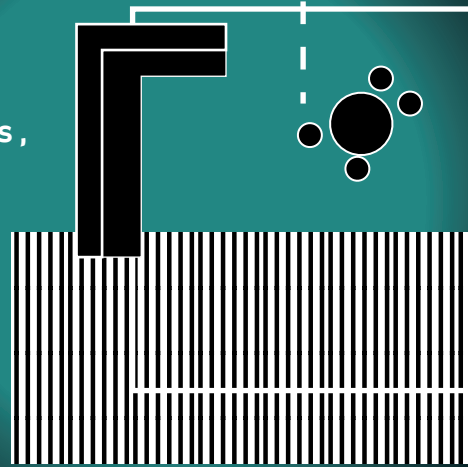
more detailed thinking

- > getting denser
- > warmer colours
- > less noise



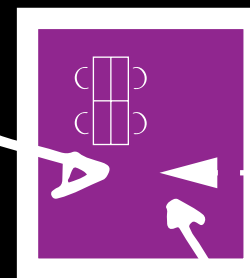
abstract / creative thinking

- > opened up (windows, openings, glass)
- > ceiling > 3m
- > cooler colours
- > messy (artworks, decorations)
- > moderate noise level

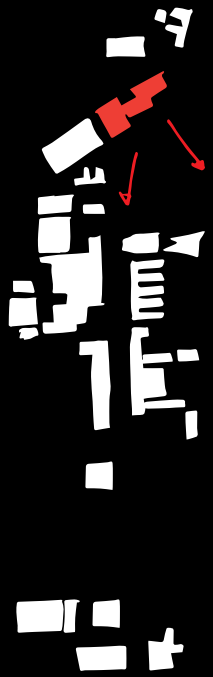


concrete / detailed thinking

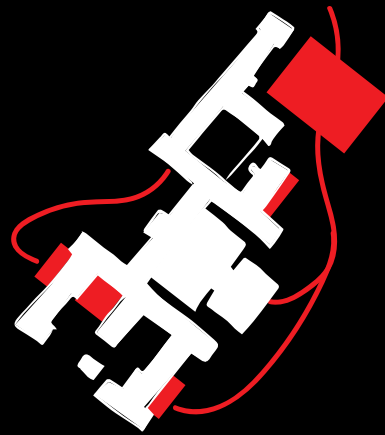
- > dense
- > spatial boundaries
- > clean environment
- > silence
- > warm colours



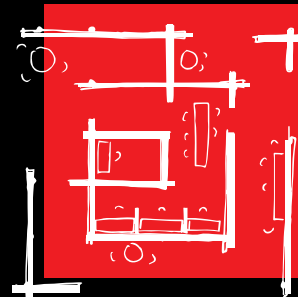
various scales



campus



masterplan
BK



design lab



workspace

design lab

program:

- > individual workplaces (± 800)
- > space for relaxation
- > nature
- > room of boredom
- > space for interaction
- > design spaces (models) + waste disposal

