

Improving staff working conditions to stop the shortage - what staff in healthcare really want



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BACKGROUND AND PROJECT IDEA

The motivation for this student project at TUM School of Engineering and Design, Technical University of Munich started with the following question:

The COVID 19 pandemic has taken such a toll on staff, with many suffering from stress and burnout. How can architecture address and express appreciation for staff?

The aim of the project was to improve working conditions, so the first step was to identify areas within the hospital where improving quality and design would have a potentially significant impact on staff wellbeing and satisfaction. Through field studies involving interviews in several hospitals, one area stood out: staff break rooms need an update including development of new concepts and a substantial facelift.

THE FOLLOWING CHALLENGES WERE ALSO IDENTIFIED:

- Throughout the EU and the UK staff shortages in healthcare have been a major challenge and these are expected to worsen
- Staff are experiencing increasing physical and mental stress as well as behavioural health challenges
- Increasing workload and overtime have resulted in less social life and a short recovery period between work shifts
- The staff demographic is shifting to an increasingly aging workforce

One strategy to actively assist staff wellbeing and health is to emphasize the importance of breaks and provide spaces where staff can recharge. Transforming staff break rooms into places of respite has the potential to positively impact personal stress management and thus reduce overall stress levels. Furthermore, breaks offer a variety of options to improve healthy behaviour patterns, including physical agility.

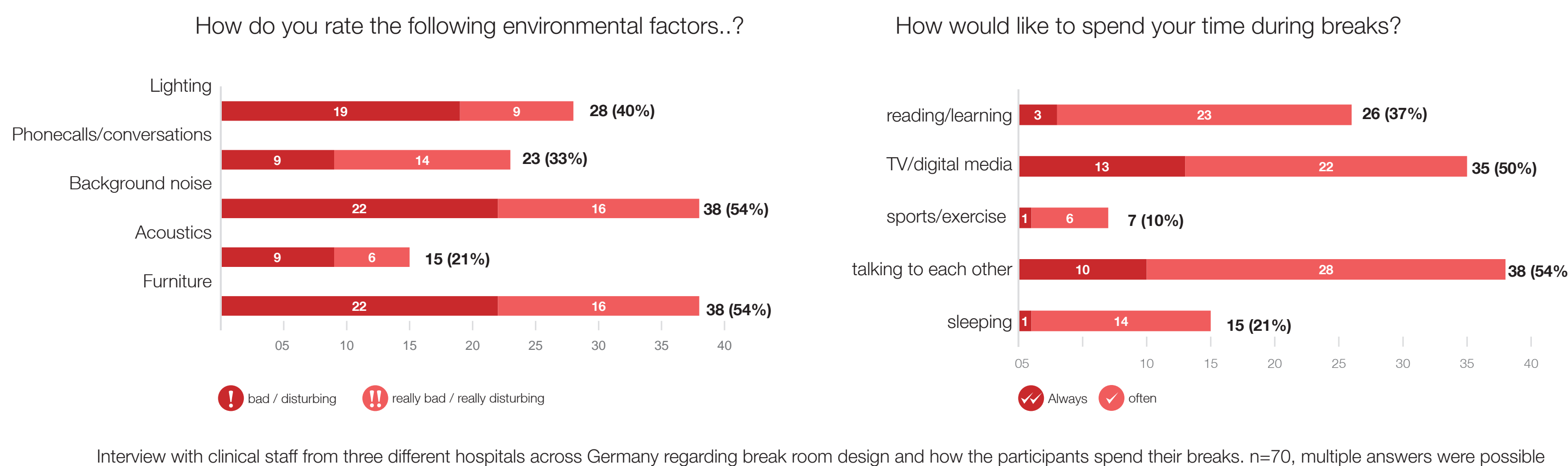
METHOD AND FIRST FINDINGS

Having identified the focus area, background research was performed, including a literature review of existing guidance and codes and interviews to gain better understanding of staff preferences.

First results showed that existing break rooms often don't meet requirements and therefore don't exploit their full potential to support regeneration during breaks. Back pain, stress, overstimulation, noise and disruption were identified as principal problems that were poorly addressed.

Study examples of break rooms			Common typologies
Break room Endoscopy clear height: 2,20 m - 2,50 m size: 16,76 m ²	Break room Endocrinology clear height: 2,62 m - 2,92 m size: 17,12 m ²	Break room Oncology clear height: 2,40 m size: 16,15 m ²	Type 1 "single purpose"
Break room Neurosurgery clear height: 2,40 m size: 23,77 m ²	Break room Neurology clear height: 2,20 m - 2,40 m size: 17,57 m ²	Break room Gastroenterology clear height: 2,90 m size: 17,10 m ²	Type 2 "all in one"
Break room Nuclear medicine, 1st floor clear height: 3,00 m size: 35,40 m ²	Break room A&E clear height: 2,40 m size: 12,40 m ²	Break room Nuclear medicine 2nd floor clear height: 3,20 m size: 20,48 m ²	Type 3 "Add on"

Interviews



Interview with clinical staff from three different hospitals across Germany regarding break room design and how the participants spend their breaks. n=70, multiple answers were possible

11 break rooms – averaged results per room

Student Project



Project brief (in collaboration with Dr. Jens Walkowiak, Carsten Hedtstück and Maren Geissler, Helios Kliniken GmbH)

- Step 1** Literature research
Identifying relevant existing guidelines and building codes regarding staff break rooms
- Step 2** Interview with users
Development of design principles
First concepts
- Step 3** Further development of the concepts to follow two design options:
- remodeling within the existing structure
- stand alone solution

Developed principles for the design

- LOCATION**
Reconsider placement within the unit to reduce distraction and disruption.
- ZONING**
Staff break rooms are used in multiple ways. To support different use and therefore different needs split the room into different zones.
check in
eating & chat
relax
- PROGRAM SIZE**
Rethink the traditional program size of a break room and potentially increase room size to support multiple use and zoning.
- ACCESS TO THE OUTSIDE / BIOPHILIC DESIGN**
Whenever possible, provide an additional outside space (balcony etc) to support relaxation.

Timeline of the student project



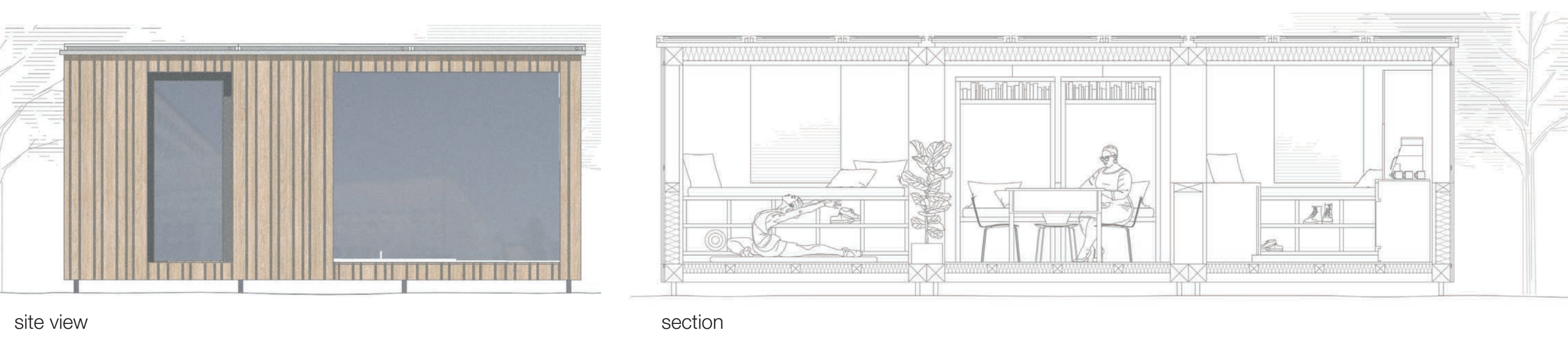
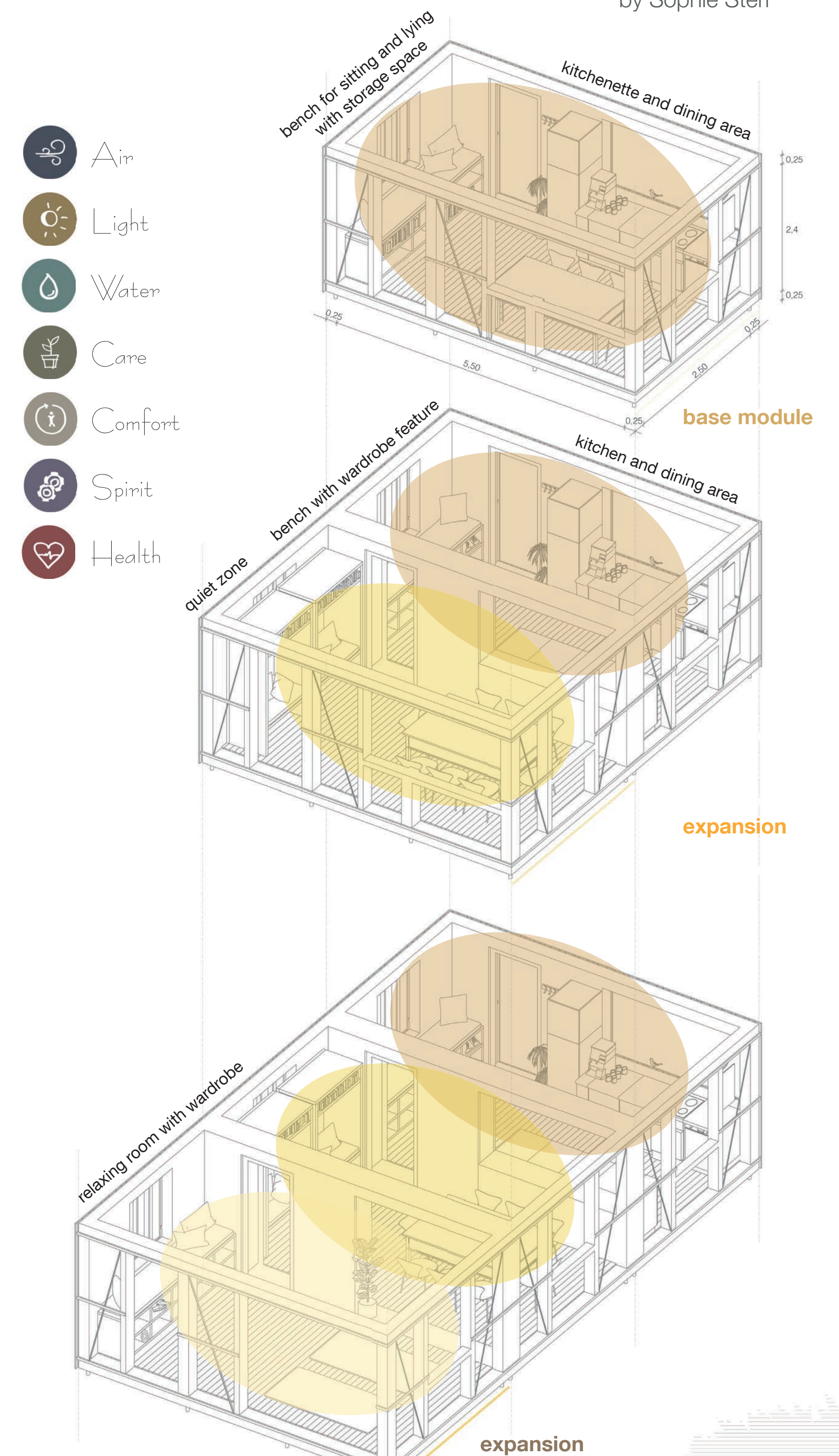
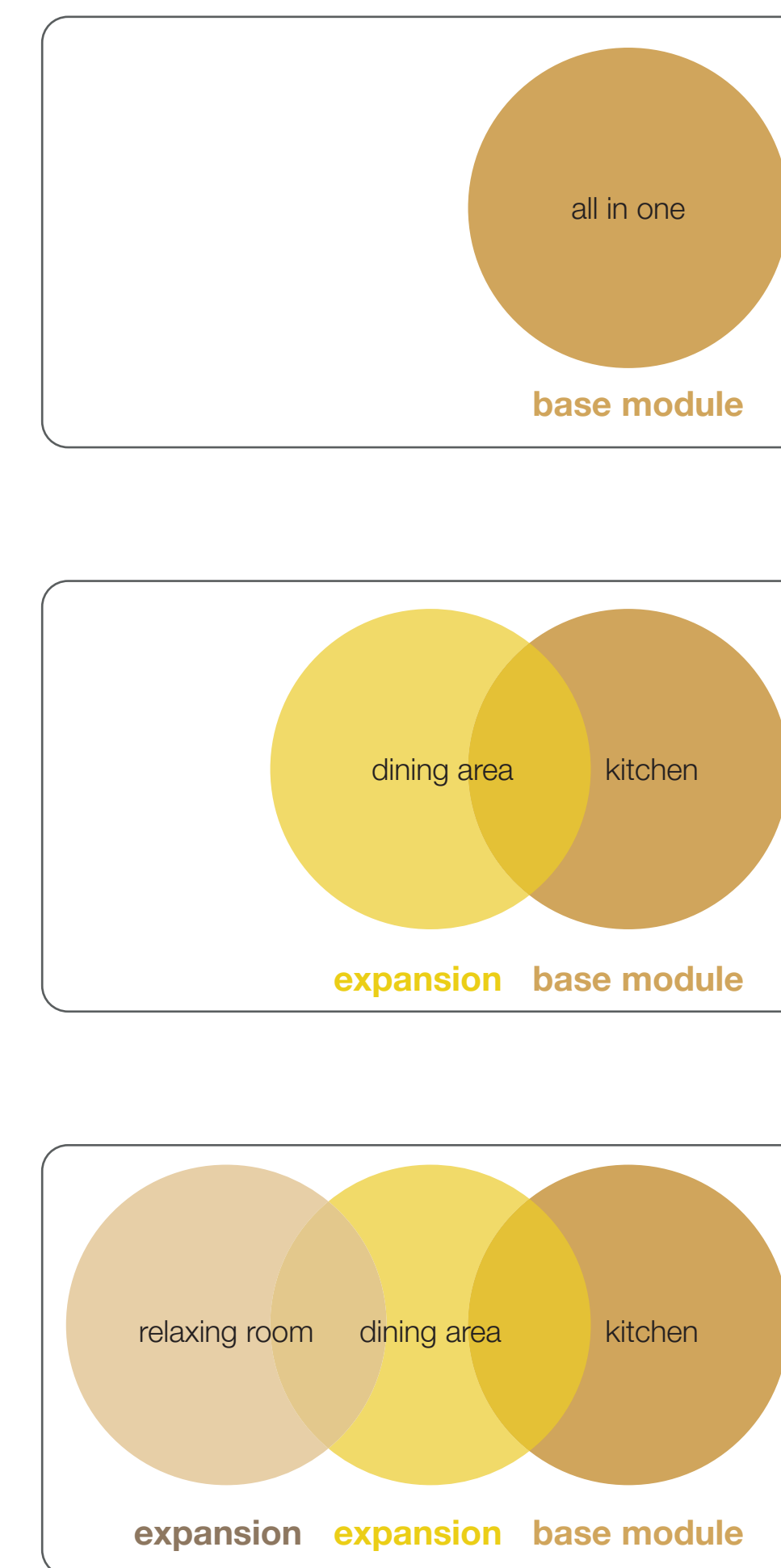
Concept 2: stand alone version

by Sophie Sterl

Main idea:

The goal is to provide a sustainable staff break room as an expandable modular building. The setting is a stand alone solution on the hospital campus (i.e. park) with a strong connection to nature.

Concept:



Concept 1: within existing building

by Lucie Schmitz

Main idea:

The goal is to provide a break room with strong architectural and environmental qualities (including access to the outside) to support the recharge process for staff.

The design offers a variety of options to improve healthy behaviour patterns, including physical agility.

Interventions:

