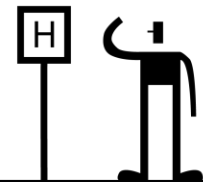


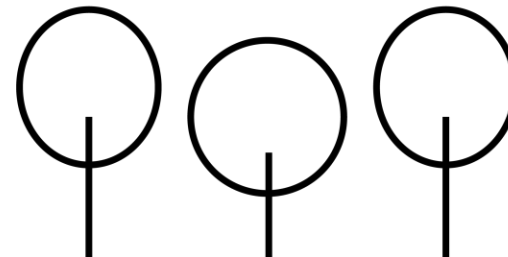


en route

A NEW UNDERSTANDING OF BEING
PHYSICALLY AND VIRTUALLY ON THE MOVE



ECLAS CONFERENCE 2022
SCALES OF CHANGE
12.09.2022
LJUBLJANA, SLOVENIA



HOCHSCHULE OSNABRÜCK
UNIVERSITY OF APPLIED SCIENCES

Presenters

Ines Prehn & Christopher Jutz

Co-Authors

Kai-Michael Griese
Karsten Morisse
Sandra Rosenberger
Johanna Schoppengerd
Henrik Schultz

1 WHAT IS en route?

- **en route** = Transdisciplinary research project based at the Osnabrück – University of Applied Sciences
- Key question:

How can students be on the move in physical and virtual (learning) spaces and thus make educational landscapes more sustainable and resilient?

- Involved research disciplines and researchers

<ul style="list-style-type: none"> • Landscape Architecture • Urban Planning • Geography • Media Sciences • Business Administrations and Marketing • Energy Technology 	<ul style="list-style-type: none"> Henrik Schultz, Ines Prehn Johanna Schoppengerd Christopher Jutz Karsten Morisse Kai-Michael Griese Sandra Rosenberger
--	---
- Research Period: 10/2021-08/2025



Fig. 1: Osnabrück in Germany (Source: postleitzahl.org)

Focus today

- What are the **functions** of the **space** en route on the daily commute to university?
- What **needs** does being en route satisfy?
- How can we **make use** of the space en route?

Research steps

1. Exploring physical and digital mobility patterns at HSOS and deriving an EN ROUTE typology

2. Exploration of the educational landscape of HSOS: pathway system, nodes and the university locations as hubs

3. Testing and evaluation of impulses within a living lab approach

4. Implementation of research results in curricula

Research design

Past steps

- Literature review
- 1. Qualitative investigation (n = 14)
 - Mobility diaries (1 week, tracking all university related virtual and physical mobility)
 - In-depth interviews (approx. 70 min.)
 - Qualitative content analysis (Mayring 2015)

Next steps

- 2. Qualitative investigation (n ≈ 15) → fill the blank spaces
- (Quantitative) Online survey → Quantify our typologies

2 WHAT DID WE EXPECT?

Think about:

- What functions does the space en route have for you?
- Which factors have an influence on the perception of your daily commute?

What we expected to have a (positive) influence on the functionality and perception of the space *en route*:

(Active) Means of transport

(e.g. Lyons & Chatterjee 2008; Handy 2019)

Possibilities to use the time *en route*

(e.g. Pawlak et al. 2021; Tully & Alfaraz 2019)

Possibility to use ICT (Information and Communications Technologies)

(e.g. Malokin et al. 2021).

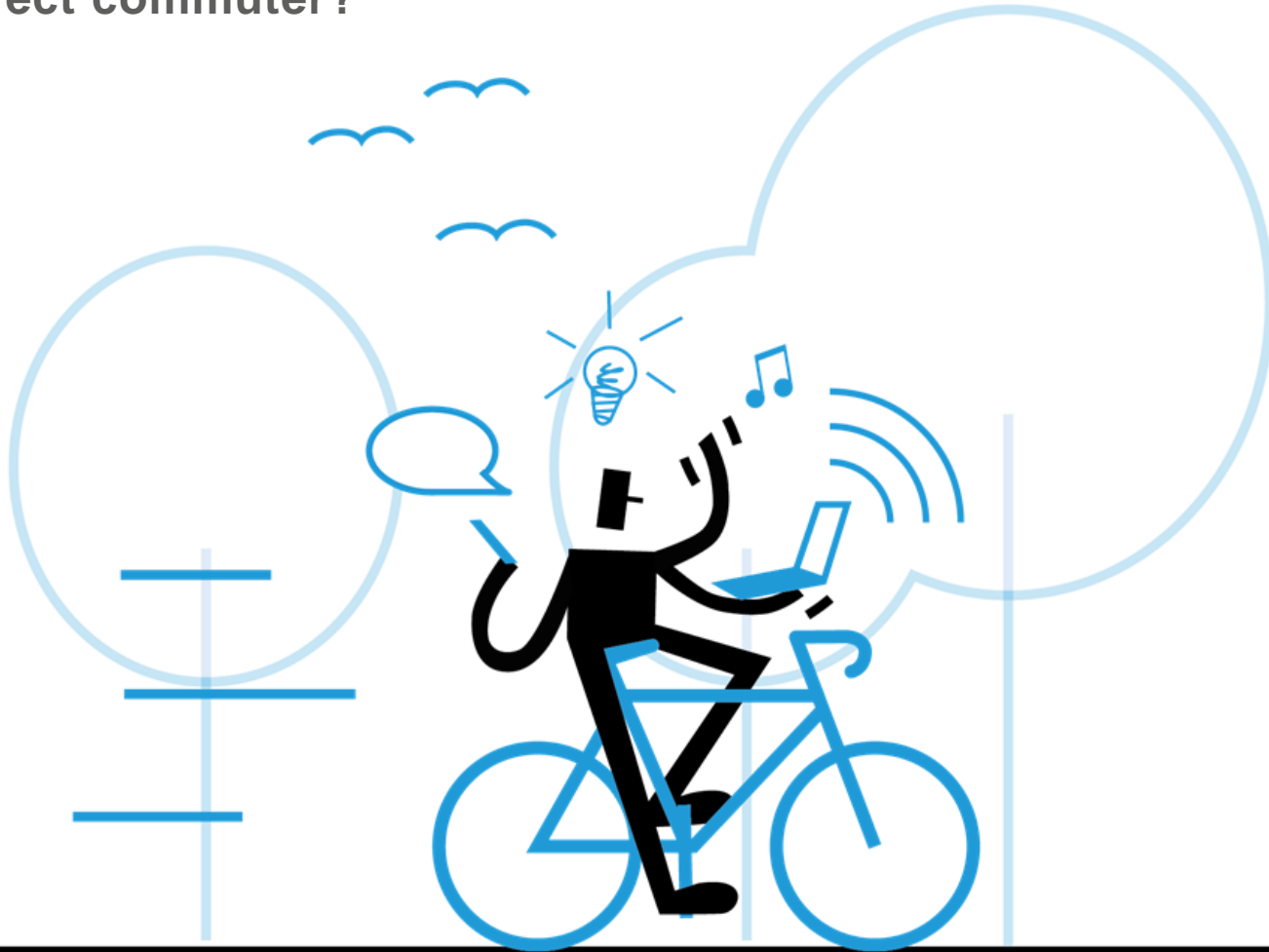
Distances & travel times

(e.g. Banister 2008)

Perception of built environment

(e.g. Chan et al. 2021)

The perfect commuter?



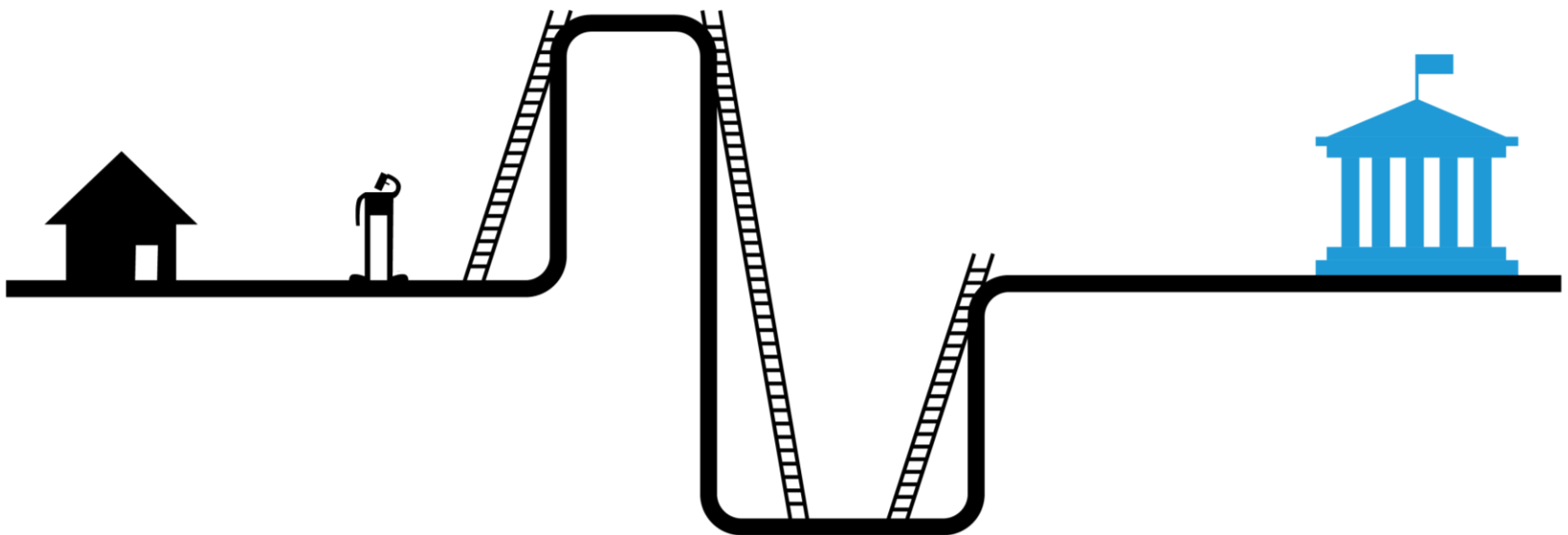
3 WHAT DID WE FIND?

IT IS NOT AS SIMPLE AS THAT.

- The perception of the time and space `en route` is not necessarily determined by the mode of transport, the amount of travel time or a highly aesthetic built environment.
- Students have different strategies to make use of the time and space `en route` that are not necessarily bound to productive activities.

→ **Spatial typology:** 5 different conceptions of the time & space `en route`

1. EN ROUTE as an EXHAUSTING OBSTACLE

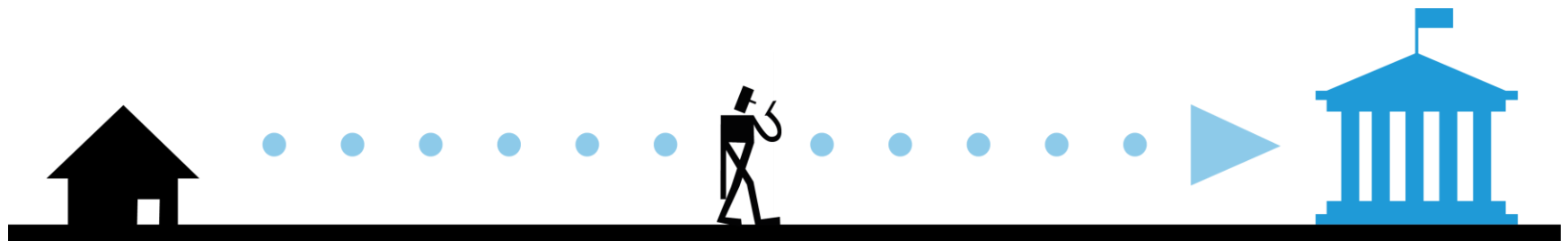


*... then I don't have to leave the house [...]
just
like to be at home, but on the other hand,
have to evaluate: At home I get distracted
much easier, but most of the time I'm still
home anyway. (Sophie, 21)*

*It [the space en route] partly keeps me from
being at campus more often, or it just ties me
to the campus more, while others might go
home in the meantime. (Katharina, 20)*

*... a waste of time. I try to use it as
productive as I can, but I can't read any
books or text messages nor send
Whatsapp, etc while driving. And of course
driving steals energy, which is then not
available for anything else. (Maria, 52)*

2. EN ROUTE as a MONOFUNCTIONAL TUNNEL

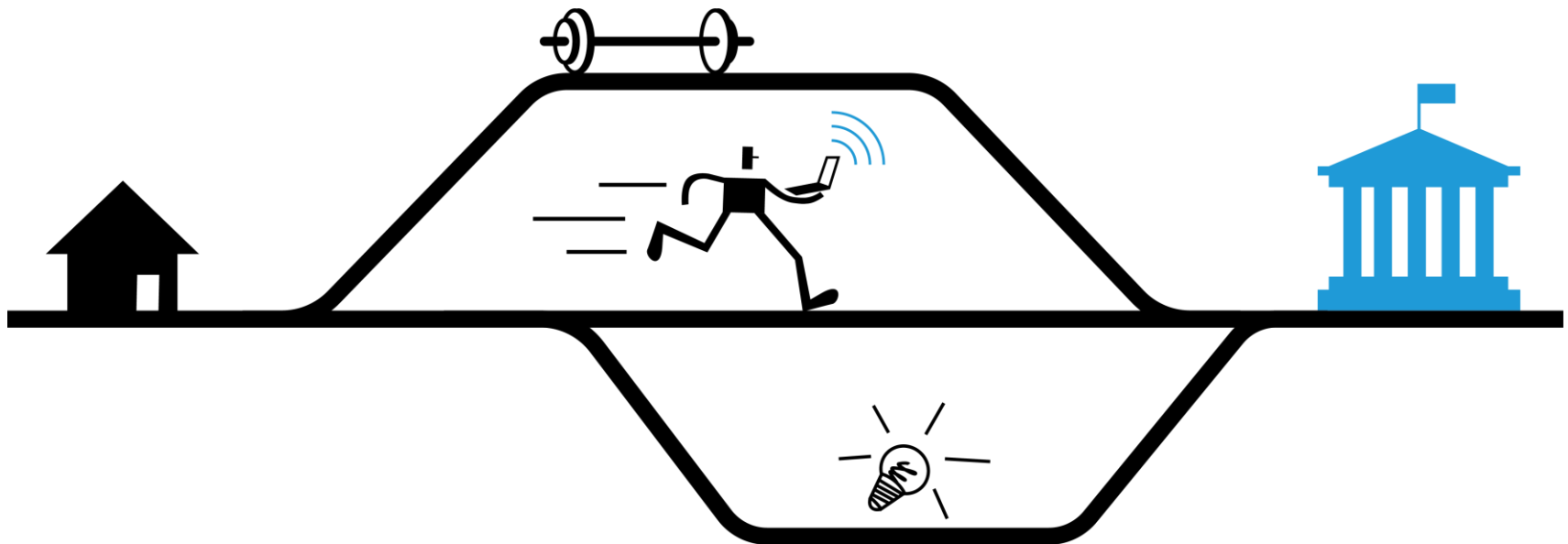


When I walk, I have my music in my ears and I don't have to think of anything, just walk. (Leon, 27)

[...] then I've already had my 4, 5 hours on the move, without being anywhere I wanted to be. Sometimes it's quite exhausting, but otherwise I've really got used to it. So that's nothing, that bothers me so much. (Lukas, 22)

Actually, I don't think much about me being on the move. So I only think that I want to get to my destination as quickly as possible, i.e. to the university or back. (Alexander, 23)

3. EN ROUTE as a SPARE ROOM

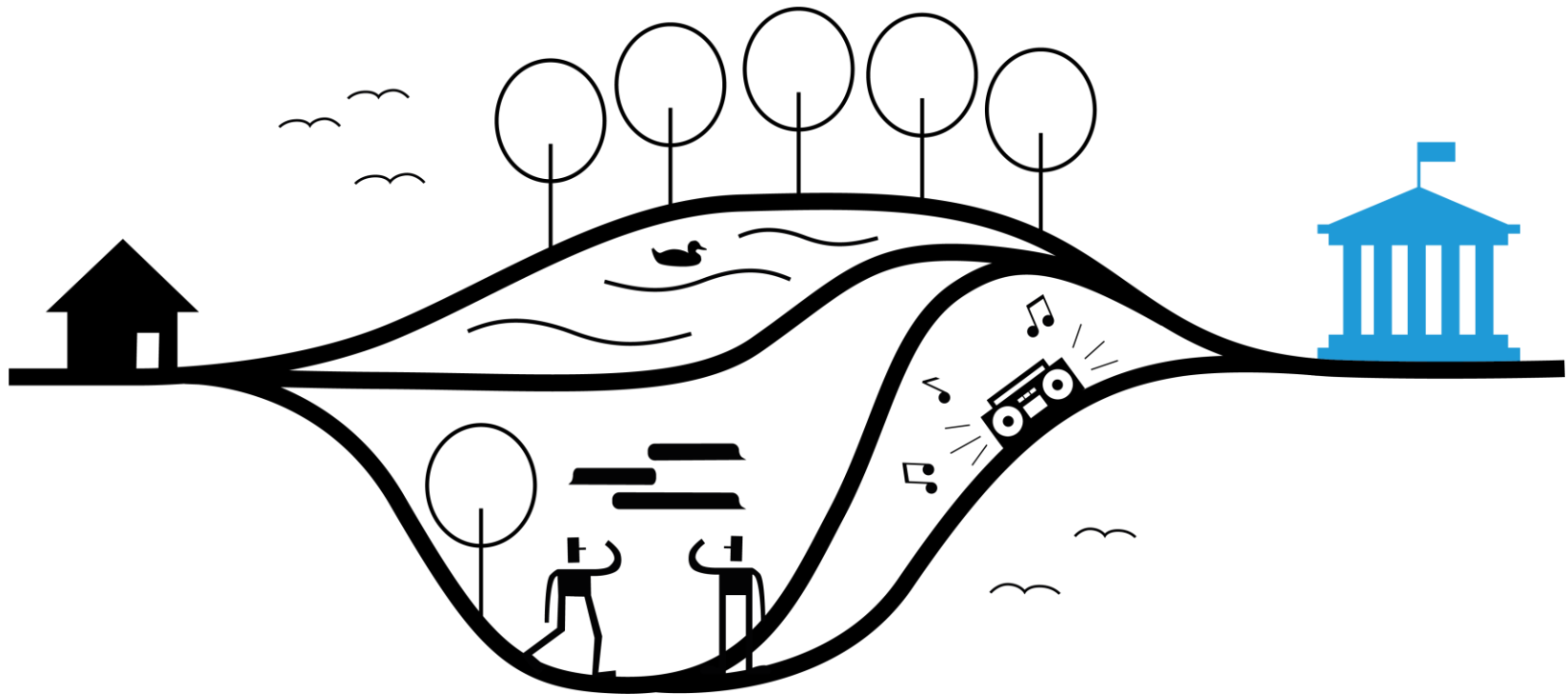


The lecturer really brought pumps into class. You could look at them, simply touch them. This connection to many things would otherwise be missing.

When I ride the bus to get from A to B, I can be "productive" at the same time and do things that I then don't have to do in class or during the break, when I could also chat with people. (Paul, 26)

I am actually super satisfied: I can combine my sport, my exercise, with my way to university. That's awesome. These ten, eleven kilometres are simply a way for me to wake up, to be fit when I arrive in the morning. Even if it's -3 degrees and really disgusting outside, it's somehow nice. (Lea, 24)

4. EN ROUTE as a PUBLIC PARK

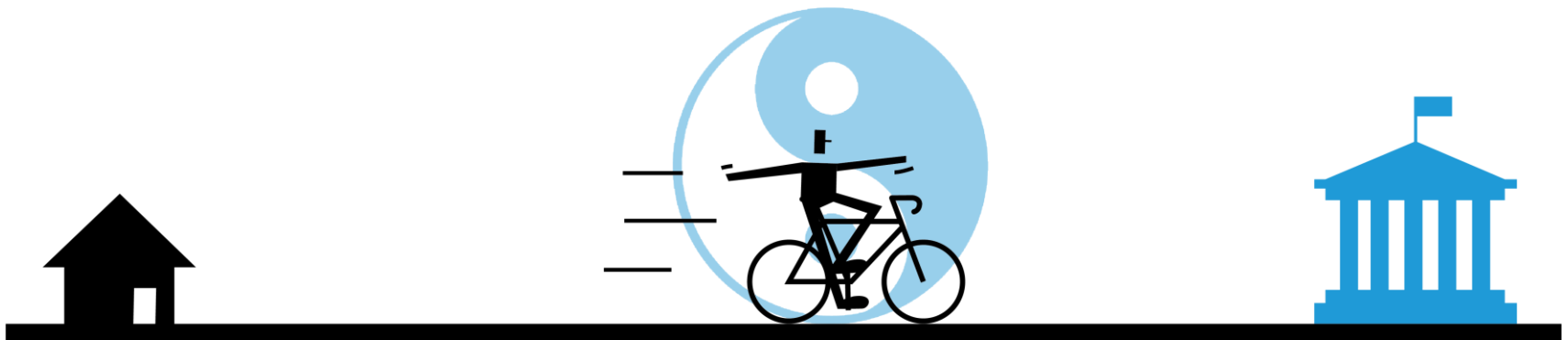


I always find it exciting to look at the landscape while riding the bus because there is this contrast between rural and urban along my way to campus. (Tim, 25)

I sing a lot. I always feel sorry for the people who ride their bikes behind me, who have to listen to it. But I just love to sing, I feel like I'm singing all the time, and I even sing on the bike. (Laura, 31)

I try to switch off a bit or listen to something. Then I digress into my own world of thoughts. (Tim, 25)

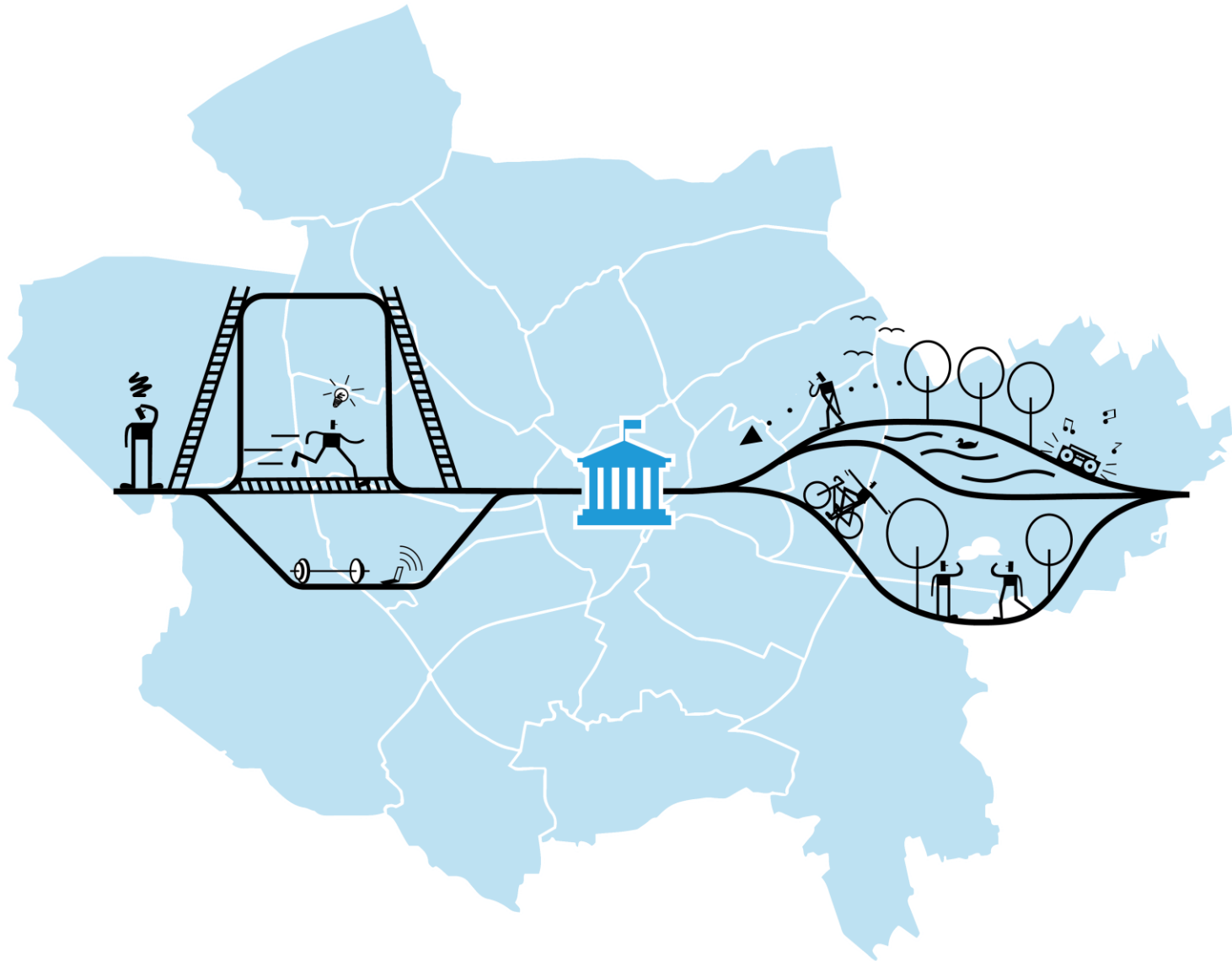
5. EN ROUTE as a MINDFUL MOVEMENT



Walking to university in the morning has really become a ritual for me. I enjoy it. It's kind of fun. (Maximilian, 20)

And the whole package is good for me: on the one hand to be in motion, on the other to hear something exciting and then to have nice visual impressions. (Julia, 26)

The way to the university is just for myself: to think, to structure myself a bit, what am I going to do now. So for me moving also has a psychological aspect. (Maximilian, 20)



4 WHAT DOES IT MEAN FOR US AND FOR LANDSCAPE ARCHITECTURE?

Theses

- Being on the way to university can be defined as a complex experience that encloses not only characteristics of the way itself. The use of ICT and virtual mobility is often an integral part of this experience, thus cannot be exclusively located either in virtual or physical space. Rather, it becomes obvious that these spaces are mutually dependent on and condition each other, forming hybrid spaces `en route`.
- Universities are embedded in both an urban and a regional context, forming a network of pathways. They should therefore be seen as hubs in a multi-faceted network of pathways. If universities want to make use of the potentials of the time and space `en route` for sustainability and resilience gains and to improve the quality of being on the move, they have to understand individual conceptions of space in this network of pathways.

How can being on the move be more than ‘an obstacle to overcome’?

We are more than happy to learn about examples for...

- ...universities/organisations that engage with “their” (hybrid) pathways system.
- ...universities/organisations that engage with the perception of the commute of their members.
- ...approaches to increase the multifunctionality of the space en route.

THANK YOU FOR YOUR ATTENTION!



**Ines Prehn,
M.Eng.**

Research assistant

i.prehn@hs-
osnabrueck.de



**Christopher Jutz,
M.Sc.**

Research assistant

c.jutz@hs-
osnabrueck.de

Research project `en route`

Osnabrück University of Applied Science

Faculty of Agricultural Sciences and
Landscape Architecture

Am Krümpel 31

49090 Osnabrück - Germany

www.hs-osnabrueck.de/en-route/

LITERATURE

- Banister, D., 2008. The sustainable mobility paradigm. *Transport Policy* 15 (2), 73–80.
- Chan, E. T. H., Schwanen, T., Banister, D., 2021. The role of perceived environment, neighbourhood characteristics, and attitudes in walking behaviour: evidence from a rapidly developing city in China. *Transportation* 48 (1), 431–454.
- Handy, S., 2019. Commute Time as Quality Time. https://transfersmagazine.org/wp-content/uploads/sites/13/2019/05/spring19_Handy_commute.pdf. Accessed 27 August 2022.
- Lyons, G., Chatterjee, K., 2008. A Human Perspective on the Daily Commute: Costs, Benefits and Trade-offs. *Transport Reviews* 28 (2), 181–198.
- Malokin, A., Circella, G., Mokhtarian, P. L., 2021. Do millennials value travel time differently because of productive multitasking? A revealed-preference study of Northern California commuters. *Transportation* 48 (5), 2787–2823.
- Mayring, P., 2015, *Qualitative Inhaltsanalyse*. Weinheim/Basel.
- Pawlak, J., Circella, G., Mahmassani, H., Mokhtarian, P. L., 2020. Information and Communication Technologies (ICT), Activity Decisions, and Travel Choices: 20 years into the Second Millennium and where do we go next? <https://onlinepubs.trb.org/onlinepubs/centennial/papers/ADB20-Final.pdf>. Accessed 27 August 2022.
- Stein, M., Nitschke, L., Trost, L., Dirschauer, A., Deffner, J., 2022. Impacts of Commuting Practices on Social Sustainability and Sustainable Mobility. *Sustainability* 14 (8), 4469.
- Tully, C., Alfaraz, C., 2017. Youth and mobility: The lifestyle of the new generation as an indicator of a multi-local everyday life. *Applied Mobilities* 2 (2), 182–198.