



MOTIVES

Making mobility climate-friendly without sacrifice

By Anja Störiko

A liveable, beautiful city with lots of green and short distances – this is something that is actually desirable to everyone. Mobility researcher Martin Lanzendorf and his working group are investigating how we can arrive there. Human beings are the focus of this research: how do they behave in public areas, what are their motives, goals, and desires – and how can their behaviour be influenced?

Our goal is to reduce the resource-devouring mobility in our cities – without having to sacrifice too much and preferably with benefits for the people living there,« explains Professor Martin Lanzendorf, mobility researcher at the Institute for Human Geography at the Faculty of Geosciences/Geography. Every demand to reduce automobility is met with protest and many different kinds of resistance, but these would often be quick to vanish – as soon as it could be made clear that the changes go hand in hand with a better quality of life.

One example is the project »QuartierMobil« in Bornheim, which Lanzendorf's working

group is involved in: The local advisory council initiated the project with the goal of reducing conflicts in traffic and parking. Using a questionnaire, the members of the working group determined the quarter's residents' habits and desires about their daily mobility, means of transportation and conflict situations. The findings served as the basis for the City of Frankfurt, together with planning offices, to develop proposals for redesigning Freiligrathstraße in Bornheim with more greenery and a changed parking situation. »It is important to enter into a dialogue,« says Lanzendorf, emphasising the importance of the survey, which revealed, for example, that some residents wanted trees along the street, while others were concerned about the amount of light coming into their homes. As a compromise, bushes may now be planted, an obvious solution. It is interesting to note that new regulations are more likely to be accepted if they affect everyone, such as generally removing parking spaces or the construction of neighbourhood garages. »In principle, the willingness to convert parking spaces into bicycle spaces, for example, is surprisingly high, even among car owners,« the studies found.

People who cycle are not only doing something for the environment. The number of cyclists is growing, and cities are well advised to respond with better infrastructure and more safety on cycle paths.

5-times

as much profit is generated by bicycle parking spaces compared to car parking spaces with the same area.

A private vehicle is parked
**for 23 of 24
hours.**

Residents of traffic-calmed streets have

3-times

as many acquaintances in the immediate vicinity compared to people who live on streets with a high volume of car traffic.

81 %

of trips in Frankfurt and Offenbach are shorter than 10 km.

»So many little things all too often complicate the path to such compromises: things like lowering the kerb, narrower streets, street greening, and markings have to be planned precisely – and many offices are involved in this,« says the mobility researcher. In his opinion, it is crucial that city and transport planners work more closely together in this process and do not plan past each other. The development of the discussion about the Mainkai in Frankfurt is exemplary of this: the majority wanted traffic calming, but during the year-long closure there was no convincing concept of how the gained road space could be ideally used. »People often forget to explain the advantages – but communication is so important in traffic planning,« says Lanzendorf.

Which colour is optimal?

In Offenbach, the working group is supporting the development of six bicycle lanes as part of the LOEWE focus »Infrastructure – Design – Society«. With the support of the Federal Ministry for the Environment, the city wants to redesignate an entire network of streets on which bicycles have priority and cars are not allowed to drive, or only as a secondary priority and at low speeds. The survey of residents on the first of these project streets revealed a surprisingly positive attitude towards cycling – much more positive than in another residential area in Offenbach with otherwise similar characteristics. Together with the Offenbach University of Art and Design, the working group asked the opinion of Offenbach residents: What is the optimal pavement colour? How should the road run? What kind of vegetation do the residents want? And how should intersections be designed? For example, hatchings are being tested to make the space in which a car door is likely to open visible along parked cars. The mobility design project funded by the Hessian state programme LOEWE aims to clarify whether and how bicycle lanes actually contribute to a change in mobility behaviour, and how they are perceived and evaluated.

Citizens' initiatives in many cities have been pushing for a traffic turnaround since 2016, mostly on the basis of referendums. These »bicycle referendums« have brought movement into the traffic discussion that was previously unthinkable, says Lanzendorf. »People want to live and experience things differently in the inner cities – the car as a status symbol is losing importance. Something is changing in a noticeable way,« says Lanzendorf, summarising the development of the last decade. Many people have realised that cars



Intersection design as well as markings along parked cars in the *Taunusstraße* bicycle lane in Offenbach. After being tested with chalk markings, these design approaches were implemented permanently.



About Martin Lanzendorf

Prof. Dr. Martin Lanzendorf (54) holds the professorship for Mobility Research at the Faculty of Geosciences/Geography. This professorship was established in 2008 as a foundation of the *Rhein-Main-Verkehrsverbund* (RMV) and *ivm GmbH* (Integrated Transport and Mobility Management for the Frankfurt/Rhine-Main region). After studying mathematics and geography in Bonn, Lanzendorf wanted to »do something in the real world«, to make a difference, and moved to the *Wuppertal Institute for Climate, Environment, Energy* for his doctorate. After working in Utrecht, Munich and Leipzig, he came to Frankfurt. At the *Institute of Human Geography*, his department offers a Master's degree in »Geographies of Globalisation« with a minor in »Mobility Research«.

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take up a lot of space in cities – space that could be used differently and better.

Thinking public transport and cycling together

Within the framework of the National Cycling Plan, the working group therefore participated in another project. It aims to link bicycle use and public transport more closely. The free bicycle transport that is a matter of course in the *Rhein-Main-Verkehrsverbund* (Rhine-Main Transport Association) is by no means common everywhere. »Often public transport still sees the bicycle as a competitor,« says Lanzendorf. This perception needs to be changed. Lanzendorf advocates that in future tenders for public transport contracts should also include concepts for networking with cycling. As examples of such a successful concept, he mentions the Mainz rental bike concept or the very safe and practical bike parking facilities at Dutch railway stations. Public transport must also become »smaller, more flexible and more digital«. Berlin, for example, is currently experimenting with the »BerlKönig«, a minibus call system via app, in which the minibus drives around the clock from door to door. »On the one hand, we complain that e-scooters are standing around in the way, but we don't see the fat cars parked in front of the bakery,« says Lanzendorf and suggests a change of perspective: »There is a raging battle for scarce space in cities. On the one hand it is attractive when there is a lot going on. On the other hand everyone wants peace and quiet for themselves personally.« It is the task of politics and society to lead this discussion and to »take people along« on the path to more climate-friendly mobility. Lanzendorf pleads for limiting automobility in a planned way, but at the same time creating incentives that increase acceptance for this path.

It is also important to include all social classes. »People affected and threatened by poverty are less and differently mobile than the average population,« says Stefanie Schwerdtfeger, a member of the working group. In the »Social2Mobility« project in Hanover, the researchers want to increase the social participation of people affected or threatened by financial poverty through mobility offers. »With the *Hartz IV* rate of 36 euros for mobility, for example, you won't get very far in Frankfurt,« says Lanzendorf, talking about the connection between low income and lack of mobility. In an earlier study, his working group had already identified this fact as an important reason for using public transport without a ticket. »Numerous people travel without a ticket because they simply cannot afford it,« says Schwerdtfeger, explaining a finding from a cooperation project with the *Rhein-Main-Verkehrsverbund*. The fact

IN A NUTSHELL

- Mobility research, as conducted at Goethe University, takes place in the midst of society and with the people affected.
- All city residents are caught in a dichotomy between their own comfort and the desire for quiet but lively neighbourhoods.
- Mobility research seeks new paths for liveable cities with flexible mobility for all.

that there are low-price or free tickets in Hesse for pupils, students, senior citizens, job and state employees is very commendable. However, there is still no *Sozialticket* for people with low incomes. »Even the *Frankfurt Pass* does not sufficiently reduce the price of tickets. So people with few financial resources are excluded from public mobility – or alternatively choose illegal strategies of mobility,« she says.

The Lincoln-Siedlung as model

In addition, according to the research team, future settlement planning must take greater account of quality of life. An exciting example is the Lincoln-Siedlung in Darmstadt, which only provides 0.5 parking spaces per flat, limiting options for buying or renting underground parking spaces. Instead, cargo bikes, bicycle and e-car sharing as well as an attractive tram connection are offered. In a current project within the framework of QuartierMobil, the working group is eagerly observing how the concept is accepted, and what needs to be changed and adapted.

Lanzendorf is particularly concerned with urban areas, because: »The change in transport must start in the cities.« It must be possible to satisfy the people there with their diverse needs. Integration with the countryside is another big step. In the Frankfurt area, a first project was the introduction of express bus lines; a next step is the expansion of the S-Bahn ring. But suitable and flexible options must also be made available for groups such as commuters and craftsmen.

You can get ideas from abroad, says Lanzendorf, and cites examples: The congestion charge in Stockholm, for example, which is paid via cameras and the revenue from which flows into improving public transport. Barcelona, on the other hand, is creating »superblocks« out of rows of houses in which cyclists and pedestrians have priority; only walking speed is allowed on



the planted streets – which are becoming »green living rooms«.

This is close to Lanzendorf's vision for the coming decades: »Half as much car traffic in the cities, twice as much green for rest and recreation areas«. In Frankfurt, every second journey by car is less than five kilometres, which means it can easily be covered by bike, on foot or by public transport. »A beautiful city for walking around, shopping, with attractive streets, lots of pedestrian and bicycle traffic – that's a city worth living in,« he says. The decisive factor is the »human scale«. This term was coined by the Danish urban planner Jan Gehl, who inspired Copenhagen to become one of the most liveable cities in the world, with an exemplary amount of pedestrian and bicycle traffic. It has become a »metropolis for the people« as strived for by Lanzendorf and his team. ●

Trendsetting? In Offenbach, bicycle lanes are being installed as part of a federally funded project. Martin Lanzendorf's team scientifically accompanied the redesign, here Senefelderstraße, as part of the LOEWE project.



The author

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