

EGEA Eastern Regional Congress 2024 Mobility shifts

**Scientific Report** 



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## Introduction

Set in the lovely spa town of Mariánské Lázně, the 2024 Eastern Regional Congress invited over 110 young geographers to spend five days exploring the very western edge of the Czech Republic – in Gala style. Mobility shifts was the main scientific theme of the congress, focusing on changes in traffic and tourism mobility. Big part of the workshops and excursions, however, was also inspired by the places and conditions specific to Mariánské Lázně and the Karlovy Vary region. Workshop and excursion leaders did a fantastic job of utilising the diversity of available locations and offered an unforgettable hands-on educational experience to all participants. For that, I would like to express my great appreciation and thanks. This document is a collection of their reports, summarising the content and results of the scientific segments. Keep reading!

Kryštof Richter Scientific Coordinator







# Workshops

## **Mobility shifts: Rethinking everyday mobility**

by Franziska Sendl & Mareike Oelrichs

#### **INTRODUCTION & RESEARCH QUESTION**

The workshop is centred around the main research question: How can cities be designed to facilitate societies' move to low emission transport modes while creating an inclusive and safe space to travel for all members of society? We had two main aims to work towards answering the research question:

- analysing current mobility patterns, using EGEAns as example;
- investigating drivers, inhibitors and challenges in mobility planning.

#### **METHODOLOGY**

In this workshop there was a wide variety of methodologies used. We started the workshop with an exercise, which showed the amount of space different modes of transport need on the streets. This was followed by a presentation about the basics of mobility shifts. The main focus was set on analysing survey results about the mobility behaviours of EGEAns.

To study the local mobility in Mariánské Lázně and provide insights on drivers and inhibitors of low emissions transport modes, the participants used the dispersed congress locations to study the opportunities and challenges in town. Each participant focussed on another societal group. Task was to document 'best' and 'worst' practice through the eyes of their stakeholder group; during the workshops the pictures taken were then put into a matrix to see if the assessment of the location also applied to other groups of traffic participants. With this we aimed at gaining a local context to the very international topic of mobility shifts and finding examples how everyday mobility in Mariánské Lázně can be shaped to be inclusive, safe and low-carbon intensive.

Furthermore, a classical SWOT-analysis (Strength, Weaknesses, Opportunities, Threats) showed the challenges in mobility planning. The results, though not further discussed, can be seen in Appendix 7.





#### **RESULTS & INTERPRETATION**

SURVEY RESULTS: CURRENT MOBILITY PATTERNS OF EGEANS

Results show that students mainly use public transport both to travel to university, as well as in their free time. However, to go shopping, public transport seems unattractive for both students and employed people. In contrast there is a clear difference in car usage between employed and students. Reasons discussed in the workshop linked to the economic situation (maintaining a car can be pricey), as well as the necessity to (possibly) have to travel further distances.

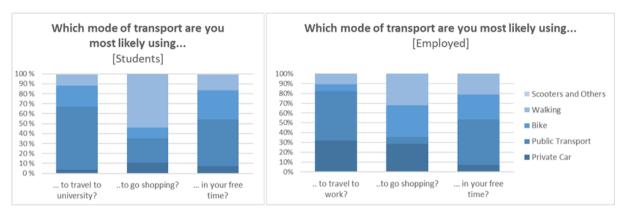


Figure 2: Modes of transport used in everyday mobility on average by students and non-students

In Appendix 1 it can be seen that all types of sharing mobility are quite uncommon, all together (also including taxis/uber) making up less than 10% in the average modal split of respondents. Nonetheless for some individuals (see Appendix 2) these mobility options are very important.

When asking for reasoning behind the individual modal split, respondents were given different categories to choose from, which were then analysed during the workshop. The results (Figure 3) show that there is no single main reason for using low emission transport modes. On the other hand there is a clear pattern for high emission transport modes, which have been defined by the participants as the private car, taxi and car sharing. Main influence on the result is the private car. During the workshop the participants discussed reasons underlying these results. From the open questions, a pattern showed that car use is mainly linked to lacking geographic reasons of availability of alternatives (no bike lanes or suitable public transport) as well as time-based reasons,





such as long-distance travel (too long for bike/walking) or limited public transport frequencies.

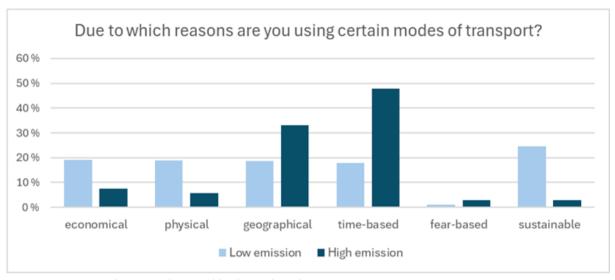


Figure 3: Reasons for using low and high modes of transport

On the second graph below (Figure 4) reasons for avoiding low emission transport modes are shown. These are mainly linked to economical, geographical and time-based reasons. Once again, the patterns are clearer for high emission transport modes. Besides economical reasons (cost), sustainability is a main factor for respondents to avoid high emission transport modes.

During the workshop, another group analysed the three categories fear-based, time-based and geographical reasons. Results (Appendix 3) show that public transport was mainly not used due to time-based reasons (e.g., linked to schedules and travel times), closely followed by geographical reasons (e.g., lacking bus stops). For Scooters, about half the respondents answered they do not use this mode of transport due to fear.





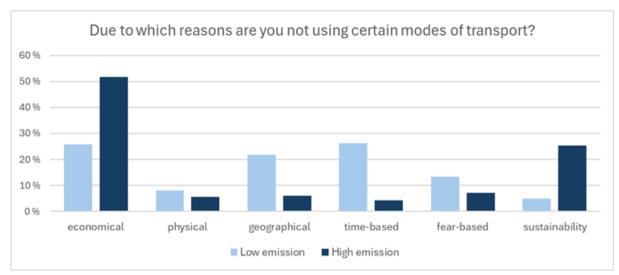


Figure 4: Reasons for avoiding, or not using low and high modes of transport

Interestingly, a clear pattern is also seen, when contrasting the responses from small and medium sized cities to very large cities (Appendix 4). Across all city sizes, time-based reasons dominate for public transport and walking. Geographical reasons dominate for scooters, bike-and car-sharing in cities with less than 50.000 inhabitants. As city size rises, the rate of avoiding these mobility options drops. Values are lowest for medium sized cities (350 001–500 000 inhabitants) and very large cities (>1 000 000 inhabitants). During the discussions in the workshop, participants exchanged their own experiences with sharing mobility, their availability and the different options, in terms of pricing and flexibility (e.g., free-floating v. stationary). There was a general agreement that availability of sharing options improves with city size, something that the survey results also show.

#### **DRIVERS, INHIBITORS AND CHALLENGES IN MOBILITY PLANNING**

The chapter above showed that depending on the size of a city, there are different challenges, needs and impediments with transportation. During the second day of workshops, the photos taken by participants were analysed. Overall, almost 30 different pictures were taken both at the congress location and during the travels beforehand.

Although only little time was left during the workshop for this exercise a few valuable insights could be created. Firstly, traffic situations which are negative for one group of users, usually are also negative for a range of other users. In contrast, beneficial designs are either indifferent for other user groups, or provide co-benefits. Some of the pictures





taken by participants can be seen in Appendix 6. Participants came to the conclusion that due to the large number of visitors, Mariánské Lázně offers a walkable city centre, complemented by separate bike lanes and sidewalks. This design ensures safety and comfort for both pedestrians and cyclists. The main roads within the city are equipped with good bike lanes, especially regarding the size of the city, promoting cycling as a viable mode of transportation within the urban core. Furthermore, the city is serviced by a network of trolleybuses that operate regularly until 11 PM. This high-frequency service meets the demand of both residents and visitors, offering a reliable and eco-friendly mode of transportation.

On the other hand, the city is geographically stretched, resulting in long walking distances for areas outside the central spa district. This urban sprawl poses a challenge, particularly for pedestrians and those with limited mobility. The sparse nature of the city increases this issue, as amenities and services are spread out, necessitating longer travel times and distances.

#### **CONCLUSIONS**

The workshops provided invaluable insights into current mobility patterns, drivers and inhibitors of everyday low-emissions mobility and the infrastructure of Mariánské Lázně. Although each city is unique in its structure, and the survey results identified different challenges according to city size, certain patterns were identified, which were also seen in Mariánské Lázně. Main challenges with low emission transport are availability and scheduling of public transport, as well as infrastructure of micromobility (i.e., bike lanes) and shared mobility (e.g., car- and bike sharing options).

While the city excels in providing reliable trolleybus services and creating a walkable and bike-friendly city centre, there are notable areas for improvement. Addressing the stretched urban layout, aligning the public transportation schedule with the train times, and developing safe bike lanes connecting neighbouring towns will significantly enhance the overall mobility experience in Mariánské Lázně and create safer and easier to use options of low-emission transport systems. These improvements are crucial for fostering a more inclusive and accessible urban environment for all residents and visitors.







Appendix 6: Pictures of different examples in Mariánské Lázně taken by the workshop participants



Figure 6: Different types of bike lanes, separated from pedestrians by signalling for blind people



Figure 5: Bad examples of cyclist infrastructure. The bike stands are not usable (too close to the wall and not accessible). The path on the right, although clearly separated from cars and pedestrians is too narrow, endangering pedestrians on the side walk.









Figure 8: Pedestrian roads along the main street are spacious, while side streets often have neither side walks nor crossings, making it dangerous for all traffic participants.



Appendix 7: Results of the SWOT analysis of different modes of transport





## **Therapeutic Spa Landscape**

by Christopher Pound, as reported by Vlăduț-George Lucan

#### **INTRODUCTION**

Together with other science enthusiastic EGEAns, I had the opportunity to participate in an enlightening workshop titled "Therapeutic Spa Landscape". Growing up in Northern Romania, I was always curious about the unique characteristics of the landscape surrounding my home, so much so that I fell in love with geography. Under the guidance of the phenomenal Mr Pound, we set out to discover the healing effects of local settings on individuals and how urban planning and landscaping impacts people's well-being. Additionally, we explored the role of geography in this wide and interesting topic, gaining new insights into the therapeutic potential of thoughtfully designed spa towns with a special focus on the marvellous Mariánské Lázně.

#### **METHODOLOGY**

The "Therapeutic Spa Landscape" workshop was meticulously structured to provide a comprehensive understanding of the topic. Composed of a mixture of lectures, field trips, and group discussions, the workshop spanned the three sessions in different and unique learning environments, ranging from a typical lecture setting to the forested surroundings of the town, ensuring a well-rounded and immersive learning experience.

Expert-led sessions by Mr Pound and other notable speakers such as professor Joachim Rathmann focused on the principles of urban planning, landscaping, and their interaction with the human being. With the example of Bath, UK we learned about how the concept of the "spa town" came to be, and more importantly, what are its defining characteristics. Our walks in key locations of Mariánské Lázně led by independent architect Zuzana Stejskalova provided practical insights into real-world applications of the concepts discussed in the lectures. We conducted observations and analyses of the urban layout, landscape features and, with the theme of this year's congress, mobility infrastructures to assess their impact on the functionality of the town as a spa destination. The natural settings allowed for a firsthand experience of the therapeutic effects of the planned environment surrounding us. The workshop utilised a variety of sources such as research papers and articles on urban planning and partnered with several local society actors to enrich the learning experience.





#### **RESULTS & INTERPRETATION**

The "Therapeutic Spa Landscape" workshop yielded several valuable insights and outcomes, highlighting the intricate relationship between planning, landscaping, and individual well-being. Key findings include the observations and participant feedback indicating that the natural elements and thoughtfully designed green spaces in spa towns significantly contribute to stress reduction and improved mental health or how the design and layout of spa towns play a crucial role in promoting needed physical activity and social interaction. By the end of the workshop, participants gained a deeper understanding of how spa town features can be integrated into broader urban planning strategies to enhance the quality of life. The collaborative efforts and shared experiences during the workshop underscored the importance of interdisciplinary approaches in creating and sustaining therapeutic environments.



Figure 1: Group hike to one of the viewpoints in the town of Mariánské Lázně, eagerly anticipating the stunning overlook of the therapeutic spa landscape. Source: Amelia Bartnicka, EGEA Warszawa





## Mineral Springs: a symbiosis of hydrology and geology

by Philipp Schultze, Agnes Rosenberg & Jan Rose

#### INTRODUCTION

Mineral Springs are a major feature of Mariánské Lázně and combine geography, hydrology, and geology uniquely. This workshop aimed to teach fundamental concepts of geology, hydrology, and aspects of regional planning and tourism with the backdrop of the congress location and its unique features. To underscore geography's characteristics incorporating scales from local to global, short time to geological times, and natural sciences to social sciences we were excited to have the opportunity to have an opening presentation held by Ondřej Hrdlička talking about a project by Hrdlička Group, one of the congress sponsors, *WaterReport*. The theoretical backdrop for the workshop was how water governance challenges might arise at different steps in a project and in different contexts.

#### **METHODOLOGY**

The first workshop session included the introduction presentation by Ondřej Hrdlička, a short Q&A session followed by an input on hydrological concepts by Philipp, an interactive session on geological concepts with group work by Jan, and ended in a quick session on groundwater monitoring practices in Czechia.

The second workshop session mainly consisted of field sampling by the workshop participants. They were asked to taste the mineral spring water and observe the surroundings while thinking about concepts learned in the first session. Every group of participants was asked to bring back a sample from their assigned springs.

The third workshop session aimed to combine the information the participants collected in a collaborative mapping tool and compare it with official geological maps to validate the results. This was followed by tasting and describing the samples that participants collected during their field sampling. The workshop concluded with a final session on spring water importance and history for the region held by Agnes. To have more regional context and knowledge there was a small quiz about Mariánské Lázně and the mineral spring in the region as the spa culture has been lively in Mariánské Lázně already for centuries. To finish the session and conclude the workshop we had a short discussion





comparing challenges faced in groundwater and spring management in Africa with Mariánské Lázně. Thanks to the mineral springs the region has developed in a unique way being one of the most beloved spa tourism destinations in Czechia. As there are huge numbers of tourists coming to the region every year we also discussed what effects such a big demand brings.

#### **RESULTS & INTERPRETATION**

The participants learned concepts of governance, management, hydrology, and geology all comprising the nexus of mineral springs in Mariánské Lázně. They got to explore the surrounding areas and see the built-up infrastructure that the mineral springs and tourism has brought to the city.

With the collective mapping approach, the participants created a Google Maps layer with annotated points with spring characteristics not shown in the image below (Figure 1). Furthermore, it was shown how to export the generated data and work in more advanced GIS programs like QGIS and ArcGIS. A guide on how to set up collective mapping was also provided as a supplement to the workshop.

Participants learned new ways to see the tight connections between geology, hydrology and human geography. As they learned about theoretical aspects of specific topics in respected fields and were creating connections between the fields and seeing how different aspects affect one region and everyday life of people living there. Participants learned to notice the interdisciplinary concepts around us.

The workshop achieved the set goal of teaching important geological, hydrological, and governance concepts in connection to mineral springs in Mariánské Lázně, providing a room for engaged discussion, and teaching the method of collective mapping.





## Hydrology and Geology at ERC 2024



Figure 1. Result of collective mapping done by workshop participants during their field sampling.



# Adapting Cities: Exploring Shifts in Mobility Patterns and Rethinking Urban Mobility

by Michelle Janzen & Fiona Oberem

#### **INTRODUCTION**

The topic of our workshop was mobility during covid. The research question that kind of guided the entire workshop was: "How did Covid-19 influence mobility patterns and urban development?". Within the three workshop sessions we wanted for the participants to get a better understanding of how covid influenced mobility, use different methods and learn more about them and to become more aware of the urban space that surrounds us.

Our experiences so far are listed below:

Michelle: Work in mobility related field, organisation, conduction and analysis of household surveys, evaluation of mobility measures for cities and municipalities

**Fiona:** Master in urban and regional development, university courses on mobility, work experience in mobility planning

#### **METHODOLOGY**

As already mentioned our workshop had three sessions in total. During the first session, the main aim was for participants to reflect on their own mobility behaviour during the pandemic. To do that we used Mental Maps. After that we wanted to bring everyone up to the same level of knowledge, i.e. to show the participants how corona has actually affected mobility patterns. This theoretical input was split into two parts, there was an input given by the workshop leaders, which was based on research papers, and the participants did some group work on specific examples, which was also based on research papers.

We started the second session with presenting the results of a survey that was conducted by another workshop at this congress. The results were prepared by us and we discussed them with the participants. After that we did a world café. This world café had the following three topics/tables: "Principles of Planning", "Actors & Initiatives" and "Pros and cons of different modes of transportation". The results of each topic were also discussed with the entire group.



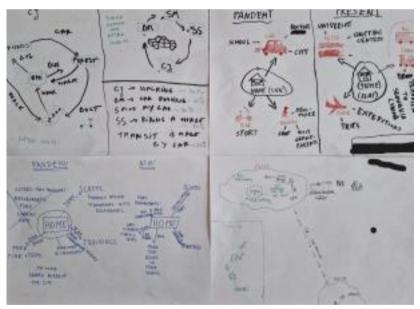


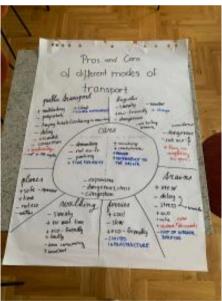
In the third session we did a participatory observation in the town of Marianske Lazne. We asked the participants to take pictures of places or situations that could pose a problem to certain groups (e.g. elders) or something they noticed about mobility in general. Afterwards we collected all the pictures and discussed them together. The session finished with preparing the workshop presentation and time for feedback.

#### **RESULTS & INTERPRETATION**

With the mental maps we were able to see two things. First of all the number of trips that people took daily decreased and second of all the mode of transportation they used changed as well, for example before the pandemic someone used the metro to get to university but during the pandemic they went by car instead. The results from the mental maps matched the results we expected based on our own experience. We were very happy with the results from the world café.

The table about the pros and cons of different modes of transportation didn't introduce something new, but an interesting discussion because not everyone agreed on the pros and cons of cars. For the participants Actors & Initiatives was the most challenging topic.



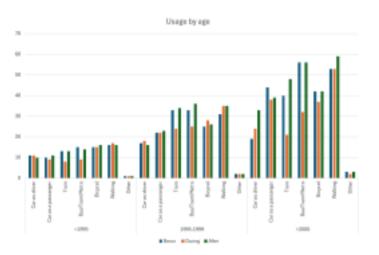


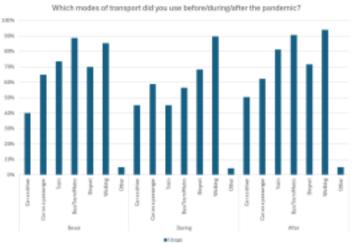
It is interesting to see that people commented or added on to other people's notes which shows us that they also reflected on other people's ideas.

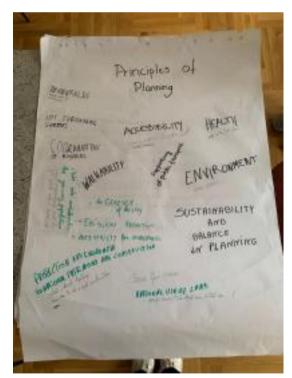




For Principles of planning something that can be noticed is that topics like environment, sustainability and the protection of the environment were mentioned by different groups which shows us that those are important topics.







By discussing our survey results, participants were able to gain experience in interpreting data. We took part in the larger survey in preparation for the congress with a question on maintaining mobility during the pandemic. The participants took an active part in the





discussion about the extent to which the data corresponded to their expectations and what surprised them. In comparison before/during/after the pandemic, the most surprising thing was that there has been a steady increase in the number of car drivers. However, this could be explained with the help of the division into age groups. As expected, age groups born before 2000 used a car as a driver less before and after the pandemic than during the pandemic. However, the large proportion of participants born after 2000 (who most likely obtained a driver's license during or after the pandemic and switched from school to university during this time) has a significant impact on the results where the significant increase in car use as a driver can be observed. This clearly showed the participants how external factors can influence the results of a study.

#### **N**ICE TO KNOW:

- While planning a workshop you should remember that even though you are an expert, not every participant of your workshop is one
- Don't plan every minute of the workshop because there are always delays of some sort





# Brewgraphy: The regional economic significance of the production of hops and malt beverages in Bohemia

by Michel Sebastian Rudnitzki & Leon Mathis Schwier

#### INTRODUCTION

As it is well known, the consumption of hops and malt beverages holds a long and prosperous tradition in the Czech Republic – with 142.9 litres, the country ranks first in beer consumption per capita (in Europe as of 2022, source: STATISTA 2023). However, in our workshop it was not only about the consumption, but primarily the production of these beverages – in this matter the Czech Republic ranks number seven in Europe with 19 559 hectolitres produced in 2021 (source: THE BREWERS OF EUROPE 2022). It is therefore obvious that this industry sector holds a significance for the country and especially for Bohemia, because most of the major breweries are located in this region of the Czech Republic.

The main goal of our workshop was to research the geographical interdependencies in the production process and the economic connections between the largest breweries. We wanted to find out where the necessary raw materials are coming from, who is benefiting from the transport of goods and for whom do these actions result in disadvantages? So we focused on the concept of the mobility of goods to ensure a direct link to the congress topic, but also examined the importance of the beer industry for the local economic viability.

#### **METHODOLOGY**

Initially, to get the participants starting to actively think about the workshop topic, we brainstormed about what a brewery needs for the production of beer. Then a general introduction to the topic and the goal of our workshop followed, which included fun facts, several maps, historical facts and an explanation about the brewing process. Afterwards, the participants were split into four groups with different tasks in terms of content and methodology, so that every participant could select a group that fits their preferred topic and method of working. Group 1 called breweries and sent out emails to figure out what the suppliers of bottles, bottle caps, cans and kegs are. Group 2 had the task to research the origin of the used hops and malt by browsing the breweries websites. Group 3 researched the location of the breweries and found out where they get their fresh water





from. Last but not least, group 4 analysed statistics that were handed out by us, workshop co-leaders (from STATISTA & THE BREWERS OF EUROPE) and also researched more information on the internet to draw conclusions regarding the economic importance of the beer industry with a special focus on imports, exports, production volume and labour market. While analysing, localising and researching, the four groups only focused on the ten largest Czech brewing companies.

After this working phase, the groups created posters and inserted the information into blank maps of Czechia to present their gained knowledge to the other participants. With all the collected information, the goal was now to create one big schematic map, which makes the geographical interdependencies and economic connections between the largest breweries visible and also illustrates the economic importance of this industry sector. After explaining the basics of schematic maps and their quality criteria, the participants actively discussed what to implement in the map and what not. Following a longer working phase and an analysis and optimisation of the map, the schematic map as our main learning product was finished.

At the end of our workshop, we were having a short *Kahoot!* brewery quiz and a closing panel discussion about the hypothetical opening of a new brewery in the city of Mariánské Lázně (where the congress took place). The participants chose roles in favour or against this new brewery, e.g. as a health authority or a trade association, and prepared themselves for the discussion. Goal of this discussion was to find out if breweries are economically important for Bohemia or if they rather are a potential risk or even a threat to the local ecosystem, respectively the health of the people.

#### **RESULTS & INTERPRETATION**

Nearly all of the breweries obtain their hops and malt exclusively from the Czech Republic. This is a fact that the breweries are very proud of and is advertised a lot by the companies. The region where most of the hops are cultivated is Žatec, followed by Tršice, Kraj Vysočina and Okna. Tršice is also the region where most of the malting barley is coming from, followed by Plzeň, Haná, Tabor, Kounice, Brno and the Moravian Highlands. One exception is the Staropramen brewery that receives their hops from Hallertau, Bavaria. Apart from that, the largest breweries receive their hops and malt only from Czechia. But not only hops and malt are primarily supplied by local companies. This is also the case for glass bottles, cans and kegs. Small breweries usually have local suppliers, large ones





sometimes have international suppliers, for example from Poland, Germany, Austria or Slovenia. However, a lot of the packaging material suppliers are located in Czechia.

Most of the beer is consumed inside of Czechia, but it is a famous export product as well. The largest importer of Czech beer is Slovakia with a value of 1.6 billion Czech koruna (in 2023), followed by Germany with 1.3 billion CZK, Poland with 837 million CZK and Russia with 728 million CZK. A little surprising are Sweden (565 million CZK) and South Korea (240 million CZK) as major buyers of Czech beer. So it is obvious that the Czech brewing industry is highly relevant for the local economic viability due to its high popularity in Czechia and abroad as well as the fact that the vast majority of suppliers are located in Czechia.

All in all we are very happy with the workshop results. The participants had great ideas, were extremely engaged and enjoyed the process of creating the schematic map as well as participating in the final debate. The only major struggle was that the group which had to call the breweries, didn't get a proper answer from most of the breweries and had to send out e-mails instead of calling them. So, before the end of the workshop, we only received a few answers, mostly from small breweries. Therefore, we realised that work like this should be prepared in advance, already a few weeks before the workshop starts.

Feel free to contact us, if you have any questions:

Michel Sebastian Rudnitzki: E-Mail: michel.rudnitzki@gmail.com

**Leon Mathis Schwier**: E-Mail: mathis.schwier@web.de















## **Training: Make room for your presentation**

## by Małgorzata Kamińska

The aim of this practical training was to approach the art of presentation from a slightly different perspective – focusing on the psychological aspect of space, e.g. how room setting, presentation layout or presenter's body language affect the audience, their attention and engagement.

The meticulously designed **participant handout**, guiding you through each of the sessions, can be found through <u>this link</u>.







## **Excursions**

## The Future of Mobility: BMW Development Center

## by Kryštof Richter

Our congress offered many interesting segments that must have sparked interest in fans of both physical and human geography. One that I found among the most exciting, was the excursion to the <u>BMW Future Mobility Development Center</u> (FMDC). After many emails, we got the unique opportunity to visit this fascinating theatre of technological innovation.

We started by boarding a hired bus, which took us on a 50 km journey north, to Sokolov. Along the way, we could see the hills of the Slavkovský les protected area – a diverse land of forests, bogs, and mineral springs. As we approached Sokolov, the scenery changed into an industrial and urbanised area, heavily scarred by extensive surface extraction of brown coal. And that is where the story of our destination begins.

The BMW FMDC is a vehicle testing polygon, designed to test autonomous vehicles. It has been built on a piece of recultivated land, which used to be a dump of the surplus material extracted during the coal mining. While that is more environmentally acceptable, it brings problems on its own, in the form of unstable ground movements, that have to be monitored. The size of the polygon is absolutely massive – once the construction is over, more than  $5 \text{ km}^2$  of land will be lined by 100 km of various road types, workshops, labs, and other sites, ready for any type of car testing imaginable.

As the bus pulled into the vast complex, all participants IDs were checked against a list that was provided beforehand. Our phone cameras were covered with safety stickers, to prevent any photographing of the proving grounds. Then, we were welcomed in the main building's conference room for a presentation delivered by the head of operation. We talked about the current technological advancements in the field of mobility and expected future developments, before being introduced to the technical information specifically about the polygon itself. And that was just the start.





After the presentation, we were led into the brain of the facility, which was the command centre. Loaded with fascinating technological solutions that oversee and automate the operation, this room made it difficult for us to perceive everything we saw around us and listen to the guide's commentary at the same time. It is worth mentioning at this point that BMW did not let us know what exactly the excursion would entail beforehand. So had this been the end of the tour, it would have already been a pretty interesting visit. But not yet.

We loaded ourselves back into our bus, together with the "boss" of the polygon in the front, by the microphone. Then, to our (and our bus driver's) great excitement, a genuine bright yellow safety car pulled up in front of us, turned its lights on and started guiding us towards the polygon test tracks. What followed was an extensive drive around the whole compound, during which we saw how incredibly diverse conditions this facility can simulate. All kinds of weather types and road surfaces, highway, country road, or urban street grid... As the autonomous vehicles need to understand road signage, the roads can also be modified to simulate traffic conditions in various countries across the globe. We made a special stop at the site for high speed testing and then took a look inside a workshop with those pedestrian dummies that they use for training the emergency brake assist systems. Many jokes were made about the various figures and animal models that we saw. The whole time, our guide provided us with information about the sites that we were passing and answered all our questions through the bus microphone. As much as we all loved this whole experience, I think our bus driver must have been the happiest. After all, how often do you get to drive through a top secret polygon, behind a safety car like a racing driver, while you're being paid?!

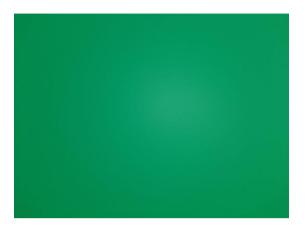
This was then finally the end of the polygon tour. We said goodbye and thank you to our guide and headed for the last segment of our programme – the historic town of Cheb. What a contrasting location! From the future back to the old days... We took a picture at the beautiful main square with the iconic group of buildings from the middle ages called Špalíček. After walking through the narrow street between them, we dispersed for some individual free time, before heading to the railway station to catch a quick train back, just as a big summer storm started pouring rain all over our heads.

All in all, I consider this trip to have gone perfectly. While it may not have been the greenest excursion, the insights into the future of mobility technology research that we have gained were, at least to me personally, priceless.





What our cameras saw through the stickers (left); pictures from Cheb (middle and right)











Cheb main square with Špalíček in the background (left); Cheb castle (right)







### **Spa Town Governance: Karlovy Vary**

## by Zuzana Kabelková

As part of the congress in Mariánské Lázně, I took part in an excursion to another spa town, Karlovy Vary. The topic of the excursion was the local government of the spa town, as our guide was a member of the city council and geographer Adam Klsák. The content of our guided excursion was filled with information about the history of the city, as well as demographic developments. We learned about the challenges facing this city near the German border, especially in the context of the current war in Ukraine, as Karlovy Vary has been a very popular destination, especially for Russian tourists and citizens who have been important stakeholders in the city over the past decades. In addition to the expert lecture on these issues, we had the opportunity to visit all the most important and touristic places of this city, which also included the traditional tasting of natural springs, which are mostly warm in Karlovy Vary. However, the brave ones tried them. An interesting part of our excursion was the mention of the film festival, which has traditionally been held in Karlovy Vary for many years. We visited the famous Thermal Hotel, which is interesting not only for its architecture, but also for its outdoor swimming pool fed by local hot springs. Some of us decided to take the opportunity to take a dip, which was very relaxing towards the end of the congress. We really enjoyed the views of the city and the hot water from the springs! Our excursion also included lunch at a local restaurant where we sampled Czech cuisine. We also had some free time during the day excursion so everyone was free to go to other places on their own and fill their free time in their own way. My only regret is that the guide didn't have more time for us. Otherwise though, I think the excursion was well planned, we learned a lot about this spa town and made the most of our time there. I would go again in a heartbeat!







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### 200 Years of Slow Tourism: Mariánské Lázně

## by Denisa Hadrová

Mariánské Lázně, a picturesque spa town in the Czech Republic, is renowned for its therapeutic mineral springs and beautiful parks. Nestled in the lush Slavkov Forest, the town boasts over 40 mineral springs, each with unique healing properties that have attracted visitors seeking wellness and relaxation for centuries. The stunning neo-classical and Art Nouveau architecture, epitomised by the elegant colonnades and the famous Singing Fountain, creates a serene and charming atmosphere. Besides the health benefits, tourists can enjoy cultural experiences, including music festivals and concerts, as well as outdoor activities like hiking and golfing, making Mariánské Lázně a versatile destination for both rejuvenation and leisure. This made it a perfect choice for one of our excursions.

Our excursion began at Ferdinand's Spring Colonnade. Ferdinand's spring was the first one we tasted during the excursion. It is a naturally carbonated and slightly mineralised spring, making it suitable for daily drinking. Then, we walked through the park to the Ensana Spa.

Ensana Spa, known for its healing springs and modern medical treatments, was the second stop on our excursion. Here, we learned about the history of the spa industry in Marienbad, which dates back to the early 19th century. The spa is famous for its mineral springs, which are used to treat a variety of health problems, including musculoskeletal issues. The spa was founded in 1808 and gradually developed into an internationally renowned treatment centre. Visitors can enjoy a wide range of treatments for better health. We had a peek into the hotel rooms, the fitness room, and of course, the spa pools. We had the opportunity to taste other springs and, most importantly, learned a lot of new information. I cannot forget the beautiful hall of the Casino, which we had seen beforehand. Lunch followed right in the spa restaurant for an authentic experience.

After the visit to the spa, there was free time to take a walk in the surroundings and soak up the spa atmosphere and peaceful life. At two o'clock in the afternoon, we started our tour with a local guide. The tour lasted an hour and included the main historical and cultural monuments of the city. We learned a lot about history, famous people, and even interesting plants. We finished the tour at three o'clock in the afternoon at the Singing





Fountain. It is one of the dominant features of Mariánské Lázně. During the season, it plays daily from 07:00 to 19:00 every odd hour, and at 21:00 and 22:00, including a projection with colour lighting. We took a picture together near the fountain.

After the tour, we took a walk to a nearby Mecséry's viewpoint. The viewpoint is located on a platform above a boulder rock outcrop near the Royal Hotel. An ornate wooden pavilion used to stand on this spot. The building was established in 1850 in honour of an important guest of Mariánské Lázně – the governor of Bohemia, Baron Karl Mecséry. We were surrounded by nature, looking out over the city – a nice connection at the end.

People have been visiting this town for more than 200 years for its architecture, but mainly for its healing springs. It's the ideal place to relax and unwind; you have to experience it.













# Pristine Nature: Mineral springs and moorlands (hike) by Lenka Černohousová

This excursion was about learning a bit of history and meaning of mineral springs in Mariánské Lázně surroundings and Kladská moorlands as a place where people go from the spa cities for an easy hike on an educational trail. During the excursion we also experienced how cars are needed to move between springs to see at least the most important ones.

The first part of the excursion was led by director of Mariánské Lázně City Museum, Jaromír Bartoš, who showed us mineral springs called Kynžvartské kyselky. Mr Bartoš explained the meaning of mineral springs to people from their observation to the present protection. He also explained how the mineral springs are formed around Mariánské Lázně and how he is controlling the amount of CO2 in one of them. The excursion started at the spring Panská kyselka, close to Mariánské Lázně. Then we moved to see several springs named after animals, because their original names were forgotten such as those springs in woods close to a small spa town Lázně Kynžvart. The last stop was situated in the spa town, where there were springs officially used for healing the upper respiratory tract in the local spa. With the translation in English and German helped Ondřej Kučera from EGEA Praha.









The second half of the day was led by Lenka Černohousová (EGEA Brno) in Kladská moorlands and mineral spring called Smraďoch. During the excursion in Kladská there was shared knowledge from physical geographical studies and sometimes enriched with information boards in the protected area. Whole group experienced the nature trail, then some decided to go swim in the less protected part, where it was allowed, and others decided to enjoy a coffee break by historical buildings in a beautiful nature. At the end of excursion, the last stop was at spring called Smraďoch, which means the stinking one, and it really did. Thanks to Mr Bartoš everyone already knew why it smelled so bad. After a small rain the whole group was moved back to Mariánské Lázně for some rest before the official ending of the congress.

What would make the excursion better next time (which advice is nice to know for future excursion leaders)?

Next time it would be better to be prepared for any kind of weather. We did not have any service around Kladská, so we were not able to check *Meteoradar*, so we all had to hide for a while in one car until a rain shower passed over. Moreover, verything would have been easier if we had had two cars all the time and not only for the first half of the day.







## **Brewery Excursion: Once upon a time in Pilsen**

by Jakub Joksch & Viktor Kosci

As our workshop regarded the geography of czech beer breweries (called "Brewgraphy -The regional economic significance of the production of hops & malt beverages in Bohemia"), it was a match made in heaven that we could attend a tour of the Pilsen Brewery, home to the iconic Pilsner Urquell beer, offering an immersive experience into the history and production of one of the world's most famous lagers. On 2 May our group went together in the morning to the train station. From Czechia's famous bathtown Mariánske Lázné we used public transportation via train. After we arrived in Pilsen, the fourth most populous city in Czechia, we took a small walk to shorten the wait for the beginning of the excursion in the Brewery, which we had booked in advance. As a part of the tour, we could get a glimpse of bottling and packaging lines, showcasing the scale of production required to meet global demand. Maybe the highlight of the tour was the cellars, where beer was traditionally fermented and lagered in oak barrels. Here, we even got some samples of unfiltered and unpasteurized Pilsner Urquell straight from the barrel, offering a taste of the beer in its most authentic form. But the best part is that elsewhere you simply won't get this beer in this form from the Pilsen brewery, a real unique one! The joy in the photo corresponds well enough to this finding! At the end of the tour, we also got a chance to buy souvenirs as we concluded our sightseeing inside the brewery's own gift shop. The factory itself contains so many different buildings with numerous tasks, that we used a bus to travel between buildings. It's a great example of modern day globalism with its deep roots in global value chains.

But that wasn't all from the excursion, the aim was to explore the ENTIRE brewery and the culture associated with it! That also means a restaurant where Pilsen beer can be served differently! And because we still had time, we went to Pilsen's most important square, namely Náměstí Republiky. We wandered around the old town of Pilsen, which was a great experience for the participants. The square is quite close to the brewery, so we chose the scenic route, first directly crossing the bridge (which is located in the brewery area) over the Radbuza river, then we reached the forest park, which is called Štruncovy sady. These serve as a place of rest and relaxation for the locals, however, there is also the stadium of football club Viktoria Pilsen, one of the most famous modern Czech clubs. Unfortunately, the fan shop was closed, so only photos of the stadium had to lift





Viktor's bruised mood. On our way to the square we also met an exhibition of war technology, which was held in Pilsen to mark the end of the Second World War. This was a really unexpected but at the same time much welcomed enrichment of our trip to the square. As mentioned earlier, the main goal of our visit to the square was to find some restaurant facilities where we could demonstrate various types of beer tapping, which are not known elsewhere. In the end, thank God, we really succeeded and all members enjoyed a delicious only foam tapped type of beer called "Mlíko" (The Milk). It is surprisingly sweet. This was followed by the last item on our programme before departure. Participants had the opportunity to divide into two groups, one of which went to the lookout tower to the Cathedral of St. Bartoloměj on Náměstí Republiky. The tower, the only one of the Cathedral, rises to a height of 102 m and is the largest church tower in the whole country. What's more, if one manages to take all the stairs up (felt like a real hike even though it was not a hard hike), they will get a beautiful view of the whole Pilsen, its sophisticated but clear infrastructure and the main landmarks. Poetic views & a beer paradise – just what we wanted to see in Pilsen.











## Podhora (hike)

## by Radek Míka and Ľuboš Rybnikár

During the congress I was responsible for the excursion to Podhora, which was led by Radek Míka, Ondřej Míka's uncle who has an incredible knowledge about the history of the city of Mariánské Lázně and its surroundings. During the hike, he introduced us to the legend about Krakonoš and we got to know about the connection between the Krkonoše mountains, Mariánské Lázně and Kraków while connecting the geographical and etymological facts. The excursion was linked to the congress topic, mobility shifts, since most of the original inhabitants had to leave the Sudentenland after WW2. We started our journey at the Krakonoš hotel, where Radek showed us the Krakonoš statue and told us the story of how once there was a school excursion and a storm started and he thought that the wrath of Krakonoš was the real cause of the storm. We continued our hike to a small village called Zádub-Závišín, where we got to know a little bit about the history of "smírčí kříže" – (eng. crosses of reconciliation) which are quite a common thing in this region. We also had a short coffee break in a restaurant in the village. We continued our hike to Podhorní vrch (Podhora) with a stop at a quarry where we ate our lunch. On the way there our guide told us about the geological composition of the Podhora mountain which is a volcanic mountain formed during the Tertiary Era. It is the highest mountain of Tepelská vrchovina where it is geomorphologically located. In the past the local people believed it to be the highest mountain of Czechia and only later on they were proven wrong. Our guide Radek also told us that the springs which were located in the valleys could be dangerous in the past and some people got killed by inhaling the air from them and that was also the reason why people usually didn't live in the valleys but on the hills. We also got to know that the City of Mariánské Lázně was only established in 1779 by the monks from the monastery in Teplá. We then learned about the history of the establishment of the Teplá monastery by a count that was called Hroznata. Later on, we reached Podhorní Vrch that actually has two peaks, whilst both of them have the same altitude of 850 meters ASL. Each peak has a different shape – one of a table, another one pointed. We took a group picture there and enjoyed the beautiful view. From Podhorní vrch we continued our hike to Ovesné Kladruby (Habakladrau), a village with beautiful timbered houses, which are typical for the Sudetenland. From that village we took a train back to Mariánské Lázně and took a short nap before the evening programme started. We are glad that we could take part in this excursion and that we could learn so many new geographical, historical and etymological facts.

















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