



design + construction

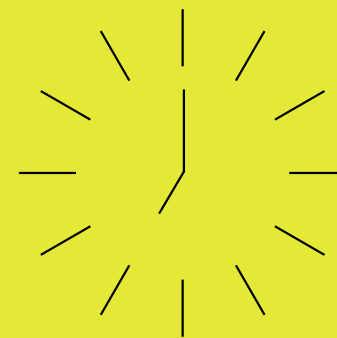
Transportation construction projects are a specific part of the public space. We see them as a place where everybody should feel comfortable. We focus all our efforts on improving the quality of these places so they would function as clear, refined gateways to the places we live.

Bon voyage.

Day 1

7:00 a.m.

Bílovice

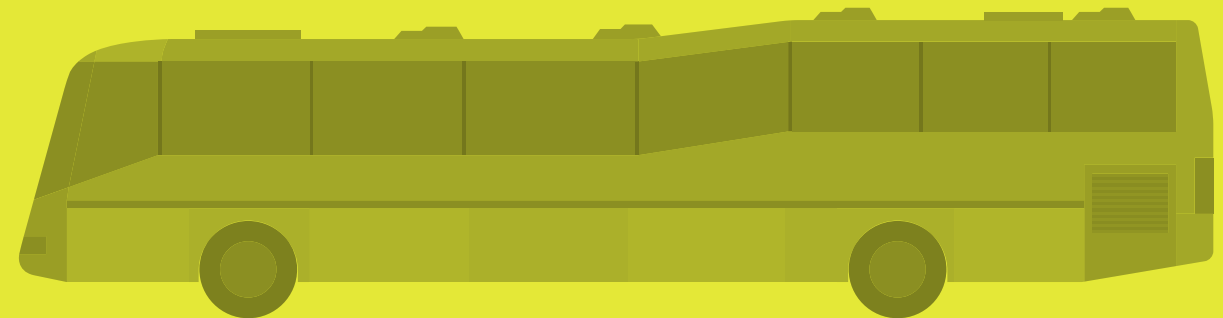


Since 1992, the projects we've implemented have taken part in shaping the public space. We can consider as the common dominator of all our projects their placement in transport infrastructure, in relation to our long-term effort in cultivating the public space that we all use every day. We often become the intermediary between the contracting authority, architect and user. We create designs and implement them, we develop new products, we provide designing preparation and we can implement somebody else's project based on the design. We are convinced that railway station space need not be unified, but can be smartly designed, and contain clever details that you might not even notice, but subliminally give you the feeling of being in a very well conceived space. This catalog contains detailed information on projects in which we participate, and showcases what construction projects we design, what the specifics of individual constructions involve, and what we can offer.



When we start working on a new project, we always take into account the context of every space, we work with municipal architects and designers, and we search for the optimum solutions with particular consideration for the wider urban relationship to the given territory. It is not important for us to build an expressive structure that would draw attention to itself. Though we implement constructions of significant dimensions, the measure of everything we do is the person within the space and using it for a brief time.

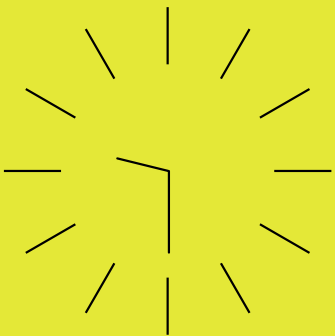
In April 2015, we organized the first mmcité+ company field trip. The trip was designed to see existing projects and ones currently under construction both here in the Czech Republic and in neighboring Slovakia. Though the selection is far from complete, it is a representative sample of the kind of work we do. The catalog structure corresponds to the route we took to see them. Standardized structures alternate with excursions through history in the form of reconstructions, followed by special projects that are often the largest and most interesting by their sheer scale. From large shelters to smaller ones, we ultimately encounter products designed so that architects, designers or builders could use them in their work.



Day 1

9:30 a.m.

Olomouc



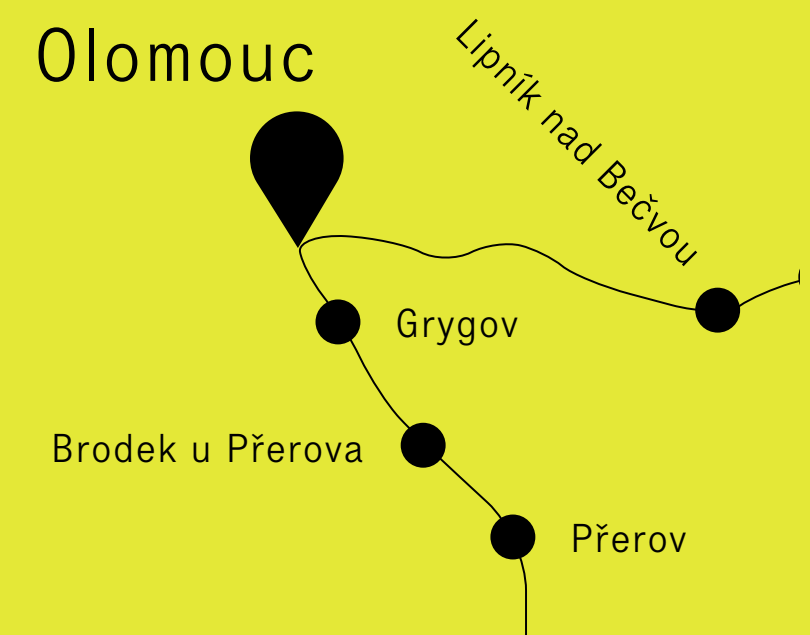
Traveling gives us the chance to chat, to meet and to become familiar with one other. For many of those participating, it was their first encounter of designing results in which they had directly participated. We believe the time spent together and the memories formed are vital for our work collective to run smoothly. Through our trip together, you can get a feel for the atmosphere within mmcité+ and get to know the people, whose work and experience we greatly appreciate. The ones speaking during tours were designers, project managers and design engineers whose irreplaceable efforts were key to achieving the result. We left Bítov in the morning and headed for Olomouc, where finishing works were ongoing at the main railway station.

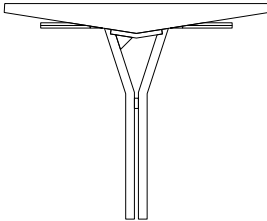
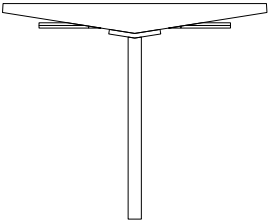
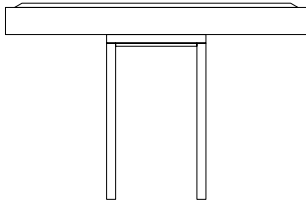
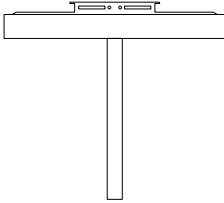
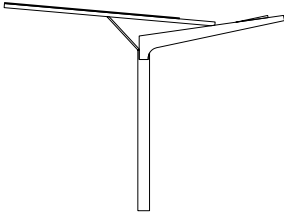
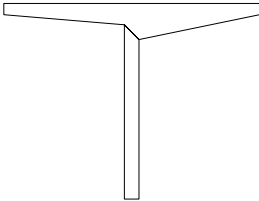
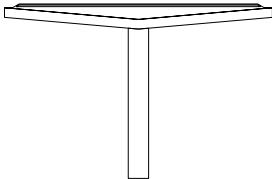
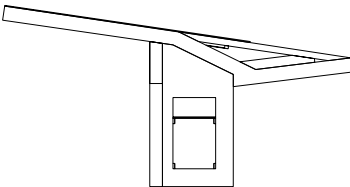
Guiding us in the Olomouc railway station is Petr Motán, head of the project manager department. Petr familiarizes us with individual phases of construction of the transport terminals, and mentions factors influencing work and the requirements placed on building transport infrastructure. Stations are often rebuilt or renovated while keeping existing transportation flows open. Only gradually can the newly built parts be incorporated. One of the predominant factors here is time. The time range between planning, designing and consequent implementation often spans over years. Olomouc was no exception; work has spread out over five years.



During our visit, the platforms were nearly completed. As project manager Jakub Holík said – in the design, it was necessary to take the original layout plan into account, which was designed at this site many years ago. In terms of the roofing, it is an economically advantageous structure. The standardized structure *flago* comes from the roofing type *volans*, which we designed back in the 1990s and implemented e.g. in Otrokovice. The project was adapted for resolving the Olomouc railway station, and a single-column structure became a two-column structure, better satisfying the demands on statics while preserving its simplicity, lightness and economical construction. The Olomouc railway station roofing project goes to show that even simply designed structures can feature a modern visual appearance. Among the details shaping the autonomous appearance of the Olomouc railway station is the subtle work with color accents, giving the long platform space a certain rhythm, and integration of standardized lighting inside steel covers, thanks to which the lights become part of the roof.

Standardized structures of large shelters fall into a category of roofing that are well suited to railway stations or bus terminals. They maintain a clearance profile and fulfill all required standards for this type of structure. For the contracting authority, choosing a roofing system in this category means selecting an already verified structure that they can see for themselves. The contracting authorities are the ones having the greatest influence on how the station will look. We approach every project individually, and the result is that though standardized, each construction becomes an original.



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flago

↓ The color accent of the roof *flago* is provided by red triangular covers overlapping the roof drainage. These are inherently functional elements lending rhythm and optically shortening the long space of the platform.



← The *flago* series can also be supplied as a single-column structure.



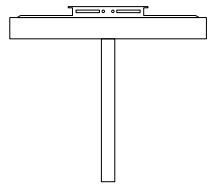
→ The linear lights installed over the entire length of the structure across the railway station create an independent structure supporting the minimalist design of the construction. The lighting helps people feel safe and there is a clear view of the entire area.

→ Besides fulfilling its main load-bearing function, the middle profile also hides cables and the gutter.

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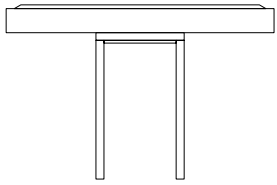
→ The *flago* design was implemented at the railway station in Olomouc.





screen

↓ We consider the *screen* design to be pioneering in many ways. It was our first success in adequately incorporating graphics into the resulting appearance of the platform, connecting the name of the station into the overall graphic style of the construction project, and thus creating a cohesive space, which communicates with passengers and leads them to protected spaces with a pleasing atmosphere.



↙ One of the potential variants is a glazed wall placed in the middle of the platform with optional colored graphic enhancement. This space forms a natural barrier in bad weather and keeps travelers in natural groups.

↘ The waste bin is often something to which we do not wish to draw attention, but we think it can be an element whose shape and distinct coloring cultivates often unfavorable spaces and the behavior therein. Railway station furniture links to the so-called *bistrot* line from the company Egoe. This simple furniture fulfills all standards and renders an artistically aesthetic appearance.

design cité+





→ We can see the finished construction at the railway stations in the Slovakian cities of Bytča and Trenčín.

← The *screen* design can also be configured as a two-column variant.



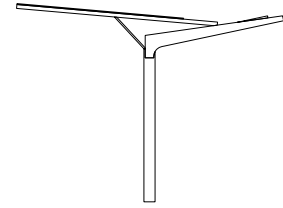
↓ The double skin roof is comprised of a PUR sandwich panel with safety glass forming a false ceiling. Glazing using colored graphics can be created on the roof.

↑ Drainage is provided by a down flow central self-supporting gutter. Lights are installed here and in the false ceiling.

design cité+



terminal



↓ The single-column design *terminal* is one of the basic roofing systems that we have been manufacturing now for many years. In its design, we worked with building engineer Ladislav Plžák, long-term head of the statics department in the architectural design company Centropjekt, the origins of which stretch back to the 1930s as part of the Bata Company in Zlín.

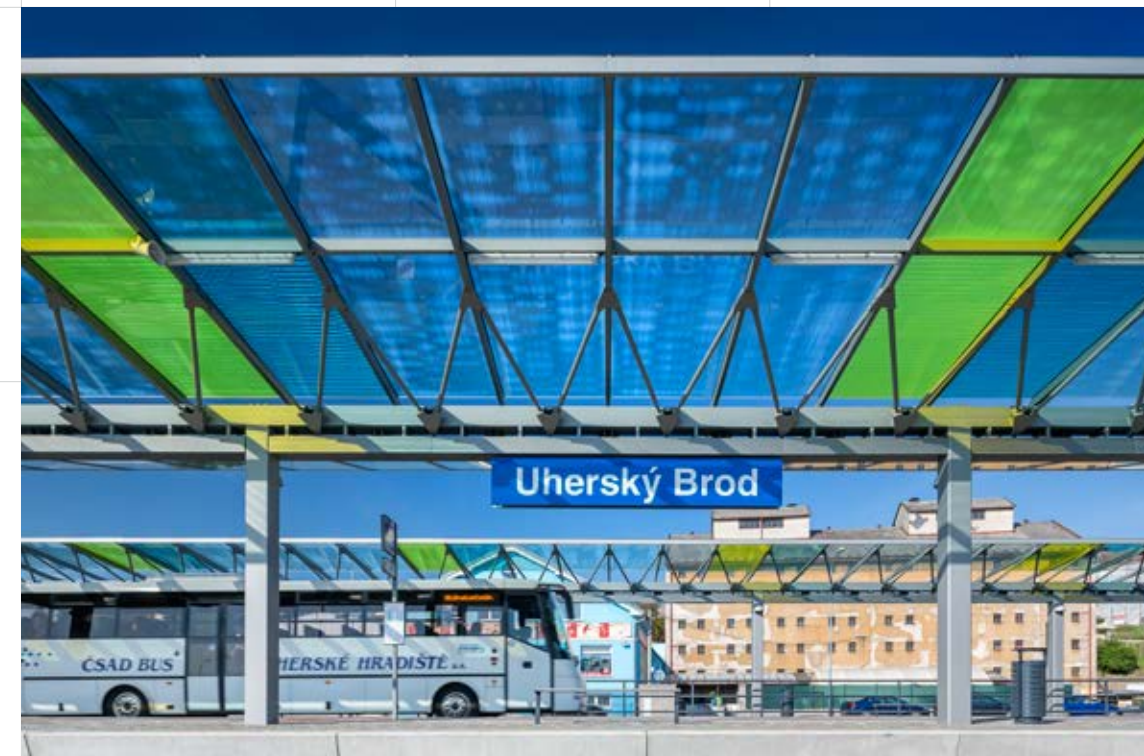
→ The shape of the structure is derived from basic static principles. Use of the single central gutter with a supporting function allows for maintenance from both sides. The result is a combination of a functional and visually artistic design.



← Lighting is installed separately on the columns.

→ It was most recently implemented in 2015 at the railway station in Uherský Brod.

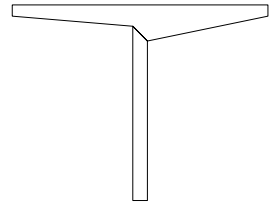
design:
Radek Hegmon
David Karásek



↑ Half of the roof design involves glazing with layered safety glass to half-way full, which serves as a shading area. One of the variants uses a completely glazed roof cladding, where part remains suspended and the other part is installed from above into glazing profiles. In this case, a graphic print on the glass or colored foil may be used as a shading element.



strain



→ For the single columns structure *strain*, we emphasized maximum simplicity and purity of forms.



← The roofing is divided into two parts similarly as the design of *terminal*. By vertical offset of part of the roof, the roofing material was divided, rendering a light, elegant impression overall.

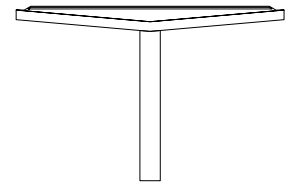
↑ Drainage is installed into an independent central gutter. The transparent part is replaced by perforated sheet, which is only partially permeable. The ceiling covers the lights, drainage spouts and the roof supporting structure.

→ Lights are installed under perforated sheet through which they illuminate, they are well protected from damage and are easy to maintain.

design cité+



← The design *strain* is created for railway stations exclusively, and we can see it installed in Slovakia's Trnava, where the platform length reaches over 300 meters. We completed its construction in 2015.



plain

→ The minimalist *plain* design is formed by two massive columns connected by a supporting gutter. Between them are located subtle columns with different coloration and furniture. A covering of trapezoidal galvanized sheet forms the roof, providing the chance to work with colors. The result is a seamless, artistically refined roof.

↓ The drainage down flow gutter is made from galvanized sheet and is installed between the supporting columns of the structure, via which water is also led into the sewer.



↓ Thanks to the single skin roof, the design *plain* is one of the most economic solutions from our offer of standardized structures. It is easy to maintain, and here we apply the same principles as in our other constructions.

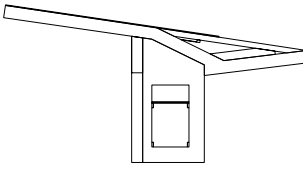
↑ Lights and communications technology are integrated in the central support beam.

→ Currently, the type *plain* is being installed in the Slovakian city of Bytča

design cité+



folla



↓ The *folla* design was designed exclusively for bus stations. Its type is derived from the standardized shelter *terminal*, which however is smaller, has one column and is designed primarily for smaller bus platforms. Here too, half of the roof remains glazed and the other half filled, the bright space alternates with shade, which must be created especially in the summer months.

→ Its shape comes directly from the design, the lower part protects passengers, and the upper part is designed for buses and complies with transit standards. The roof articulation comes from static principles. At the center frame, room is left for the gutter, into which rain water drains from both parts of the roof.



↗ In each column, a view is provided through which one can see the entire platform. Thanks to these views to the surroundings, the design is suited to places with an interesting landscape or panorama.

→ Displays indicating travel direction, platform numbers and waste bins are integrated into the column. Thanks to this design, a cohesive, relaxing space emerges.

← In 2015, the construction of the bus station in Litoměřice was completed, where the two-column structure *folla* provides cover for an area 9.8 m wide and 77 meters long.



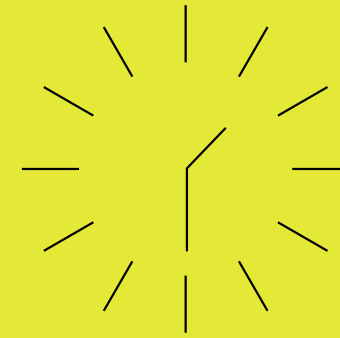
↗ The color accent of the yellow column on which the main information panel is installed enlivens the platform while making it clear what type of information is hidden in this beam.

design cité+

Day 1

1:30 p.m.

Ostrava-Svinov



The second stop was the Ostrava-Svinov railway station. We selected this project on our way as an example of the category “reconstructions”. We finished it in 2013. Revitalization of the railway station was designed in two stages, where reconstruction of historical elements took place in the first stage. Project manager Jakub Holík of the company mmcité+ has been working for many years on historical reconstructions, having led projects in Olomouc, Přerov and Prague. Thanks to his experience, we know the technological processes of period procedures, which allow us to prepare an adequate plan for restoring old elements.

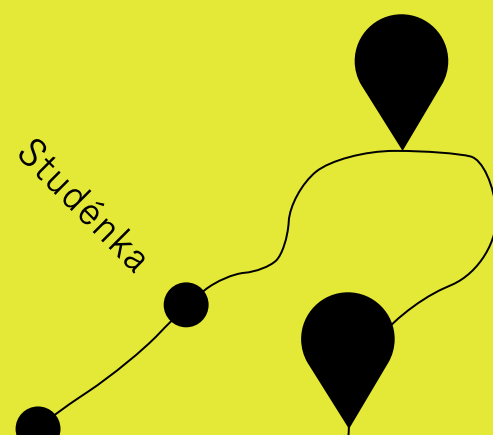
It would be hard to find an area where our experience and ability to cooperate have been challenged more than in reconstructing historical railway stations. It always involves a complex project, into which we must simultaneously incorporate requirements for the functioning of railway infrastructure while taking into account the recommendations of our partners – conservation experts, construction specialists and investor representatives. We search together for the right compromise for the given project. Step-by-step refurbishment takes place of riveted parts of the steel structure or cast iron elements, amongst which are columns or smaller above-ground structures.



In comparison with today's standard of designing steel structures, working with historical structures is different, and as Jakub Holík emphasizes, one must expect to encounter manufacturing imperfection from the period. Each of the cast iron columns and elements at the railway station had its own original sand mold (foundry plaster work), and was cast on site, in conditions that are therefore impossible to replicate today. The seemingly level beams may deviate by up to 1.5 cm. Each beam or bolt must therefore be carefully marked, so that the structure could be put back together again properly after reconditioning. For these reasons as well, 80% of reconstruction work is performed in our workshops, where designers and conservations alike come to examine it. Preparation in the workshop enables us to quickly reinstall everything on site, so at important transportation crossroads, time delays do not occur complicating the station's operations.







Ostrava-Svinov



Along our way, we went to see the project at the railway station Ostrava-Svinov. This is an example of a successful reconstruction in combination with contemporary architecture. Just such a stop allows us to talk about a figure who belongs to history as a pioneer in transportation construction, who also took part in building the Svinov railway station. Aloise Negrelli (1799-1858) was an Austrian engineer and creator of the Karlín Viaduct, and was even involved in the plan for building the Suez Canal, among other projects. There was also Salomon Mayer Rothschild (1774–1855), spiritual father of the first railway in Central Europe. As the owner of the Vítkovice Iron Works in Ostrava, he was one of the main investors of the Vienna – Bochnia rail line, a predecessor to today's north-south railway corridor.



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Ostrava-Svinov

↓ The Neo-baroque building of the Svinov railway station was once one of the loveliest station buildings on the Emperor Ferdinand Northern Railway. The original historical building was built in 1845, and was expanded in following years. In 1894, another floor was added. In 2006, the first stage of reconstruction ended, and the Svinov railway station became one of the most modern stations in the region.



↑ Today, the Svinov railway station, being the crossroads of four railway corridors, is the busiest of Ostrava's stations in terms of numbers of passengers.

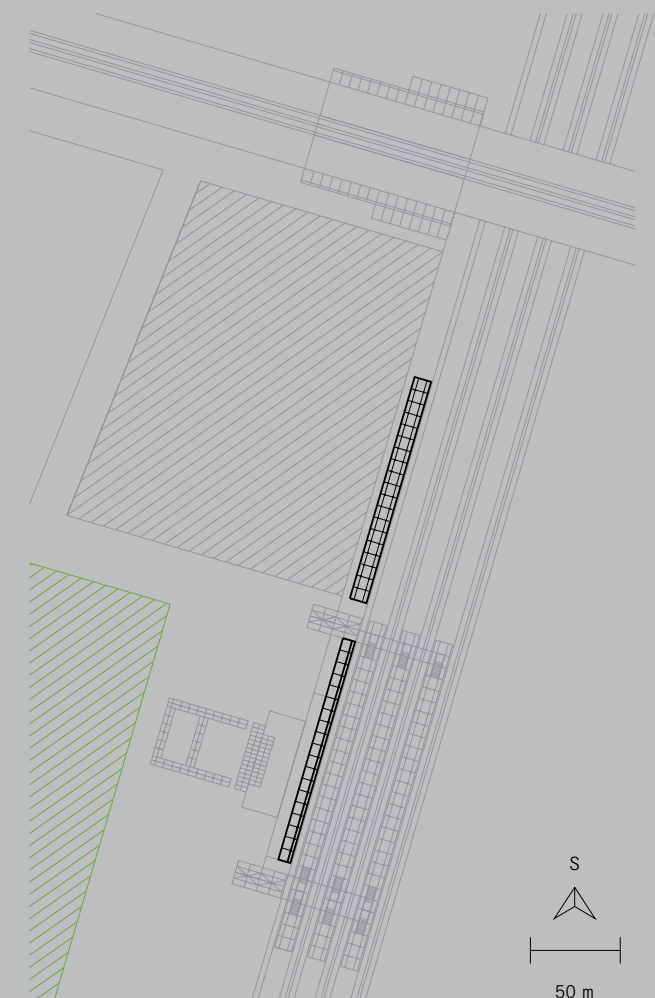


↑ The roof of the so-called Opava platform has a saddle shape. The supporting structure is formed of two rows of cast iron columns, connected by steel purlins and mutually cross-bracing tension rods.

← The historical cast iron and steel structures were professionally restored, given proper corrosion protection and reinstalled right in their original positions. Damaged columns were molded and replaced with replicas. All newly performed masonry and woodworking structures were created completely following period parameters, applying full decking with a folded double standing groove.

project manager:
Jakub Holík

implementation:
2005–2006



Přerov



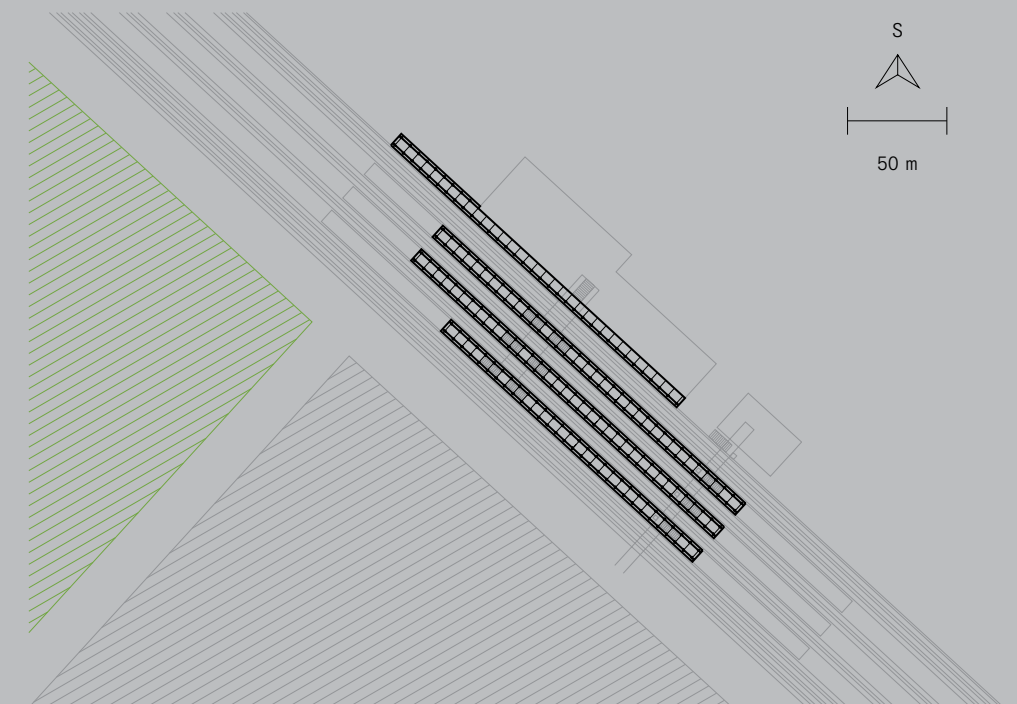
↑ Starting in the 1840s, a network of main railway routes was developed in the Czech lands that still functions today. One of them was the Emperor Ferdinand Northern Railway, the first and the main route built between Vienna and the Polish town of Bochnia, with secondary tracks leading to Brno, Olomouc, Opava and other cities. Today the second railway corridor runs along it. One of the exemplary implementations in which we took part is the reconstruction of the railway station in Přerov. This very location is one of the most important domestic and international rail hubs.

↑ Today's operation requires a large number of connecting and communication cables. One of the hardest tasks that we resolve during reconstruction, just behind the actual construction of historical cast iron and steel structures, is introduction of a cable installation that is not a distraction alongside historical details of structures. In Přerov, we succeeded in hiding all cable routes and their leading out to power sources inside the supporting structures and carpentry cladding.

↑ All constructions on this technical and cultural monument took place in cooperation with conservation experts, involving consultations on solutions of the detail, common discussions *included* negotiations addressing the statics of structures impaired by operation and consequent measures. The resulting quality of the work cannot get around involving our plasterers, who form replacements of cast elements, fitters who can ply the original practices for riveted joints, carpenters and tin-smiths for detailed elaboration of this indisputable, state-recognized technical monument, the Přerov railway station.

project manager:
Jakub Holík

implementation:
2012–2014



↑ Platforms no. 1, 2 and 3 were refurbished and installed in their original length of 140 meters. The island platform no. 4 was designed with a light glazed roof with steel beams. The same structure was also used to build the above-ground elevator shafts.

↑ On historical cast iron structures, we often find from 12 to 16 layers of reapplied coats of paint that all have to be removed. In Přerov, professional refurbishment occurred not only of the roofs themselves, but also of the historical atrium, columns and railings, and replicas of historical lights were also installed.

Prague Main Train Station

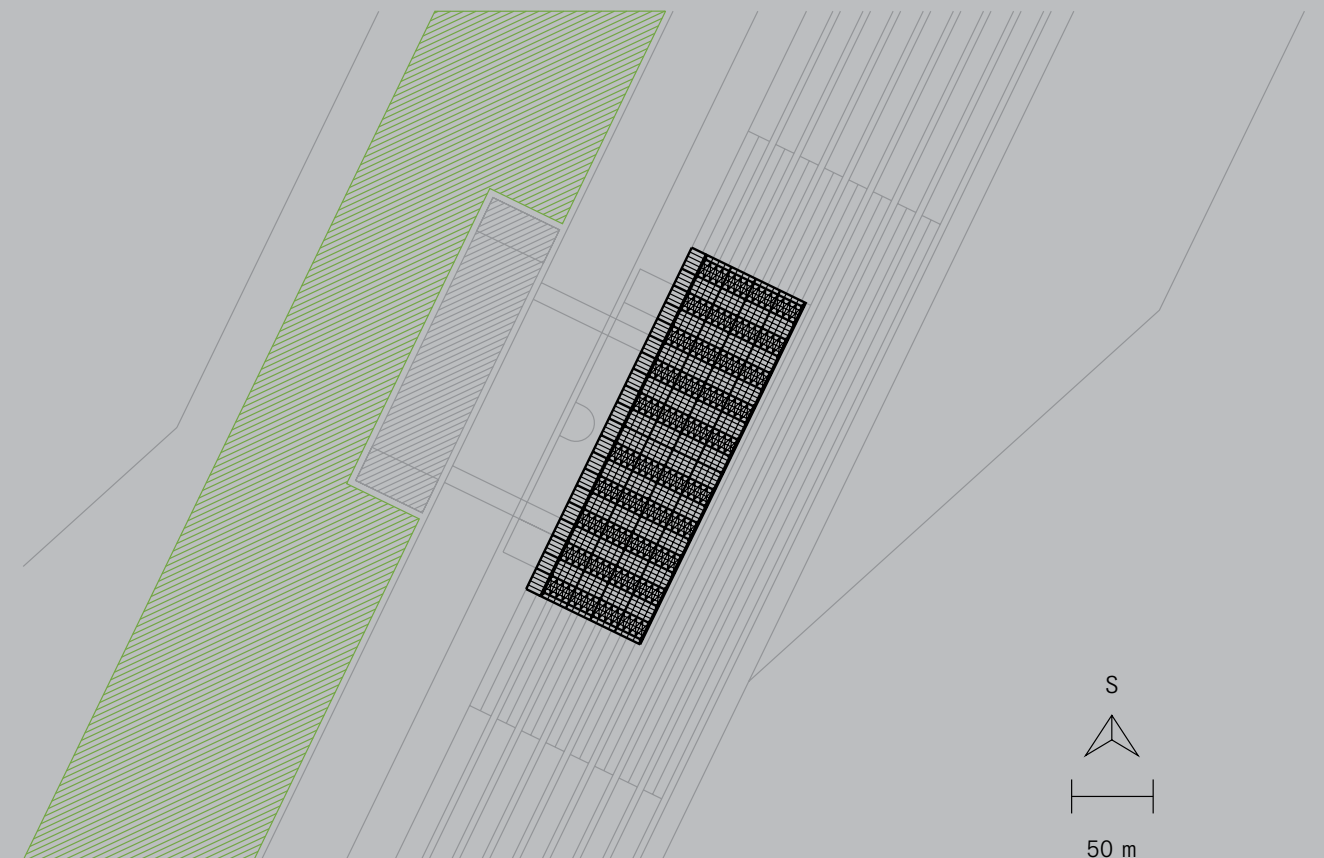


← Our supply includes refurbishment and replacement of facade panels, including glazing, replacement of glazing of the skylight, addition of installation doors for lighting and a security camera system, as well as new metalworking elements of the skylight. Roofs were restored during normal operation, which was just marginally reduced.



project manager:
Tomáš Trchalík

implementation:
2015–2017

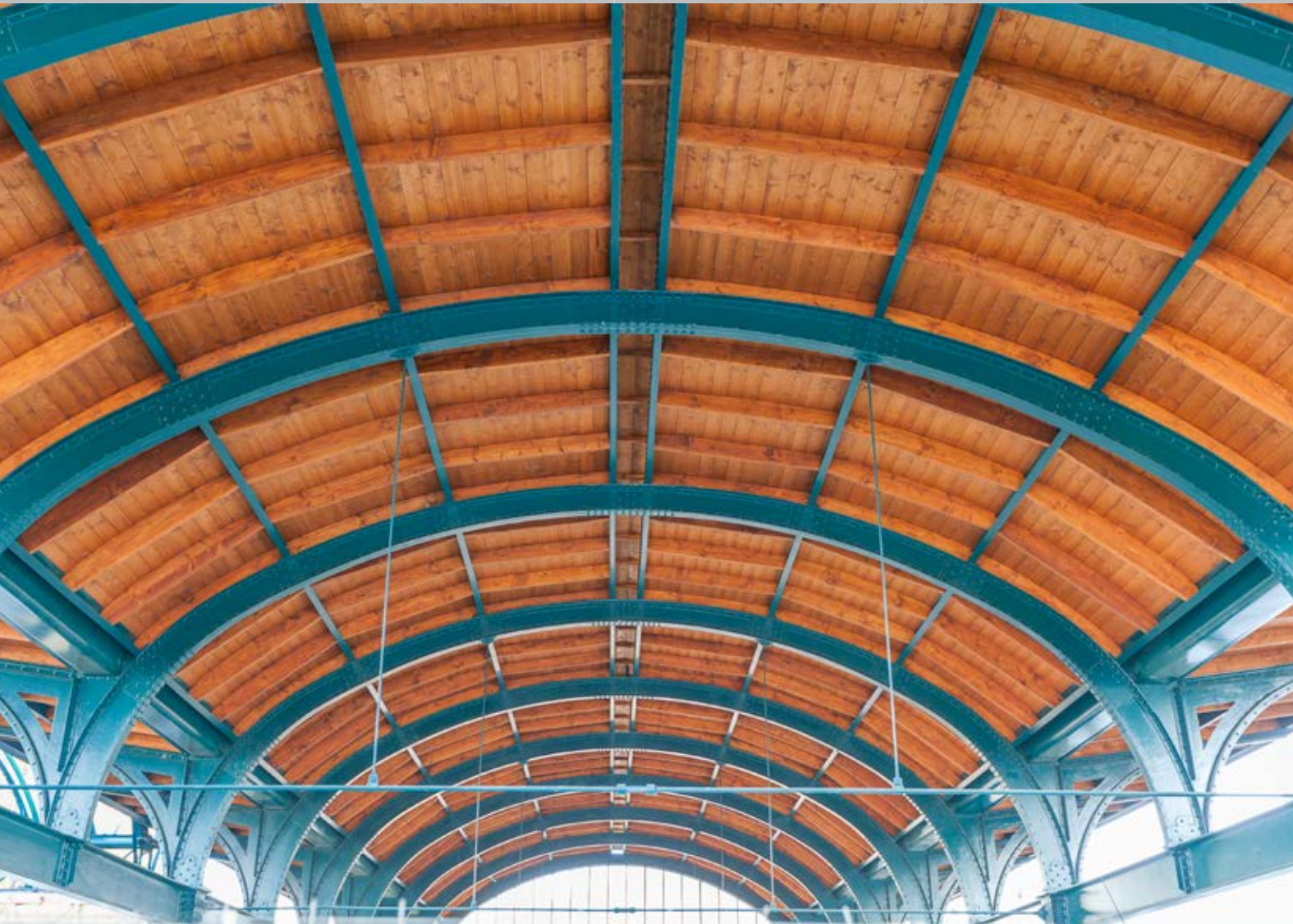


S
50 m

↑ The main railway station in Prague is the most important railway hub in the Czech Republic. The station has been in operation since the start of the 1870s, and its current appearance came during reconstruction performed from 1901 to 1909. During this reconstruction, a new station building was built in Secession style based on the architectural design of Josef Fanta. Along with construction of the station building, the tracks were covered by a two-bay metal structure, designed by J. Marjanko and R. Kornfeld.

→ Today, complex reconstruction is ongoing of the hall roofing. Reconstruction involves refurbishment of the steel structure and corrosion protection, refurbishment and replacement of facade panels and their glazing, replacement of glazing of the skylight, roof coverings, sheet metal components and design of a new electrical installation and lighting system. Reconstruction is continuing over seven stages, and completion is planned for 2017.

Pilsen



↑ The station building of Pilsen's main train station is a cultural monument. It has served its purpose here since 1862, when the Bohemian Western Railway was put into operation. This was a private railroad company in the Austro-Hungarian Empire, which owned the track from Prague, through Pilsen and on to Furth im Wald at the German border. Today's railway building was built in 1907 in Secession style based on the design by Rudolf Štecha, an architect who took part in financing the entire construction. Also likely coming from this period was the roofing of the platforms. In Pilsen, we took part in reconstructing the railway station and the historical roofing.

↑ The technical difficulty of refurbishing historical elements is given by the preservation of the technological standards of that time. Most assembly contacts of the steel structure, especially the construction of the diagonal connecting hall, were made using hot riveted joints. The entire refurbishment took place under the careful supervision of monument care professionals. Refurbishment of steel structures of platforms was performed in the work shop at mmcité and then replaced at the site of the construction. On the contrary, the riveted constructions of the diagonal hall were refurbished right on site.

↑ A strong element is the construction of the diagonal station hall connecting the northern and southern part of the railway station. This was a construction riveted on site with twelve adorned columns, upon which rests the arched roof structure with visible wooden decking.

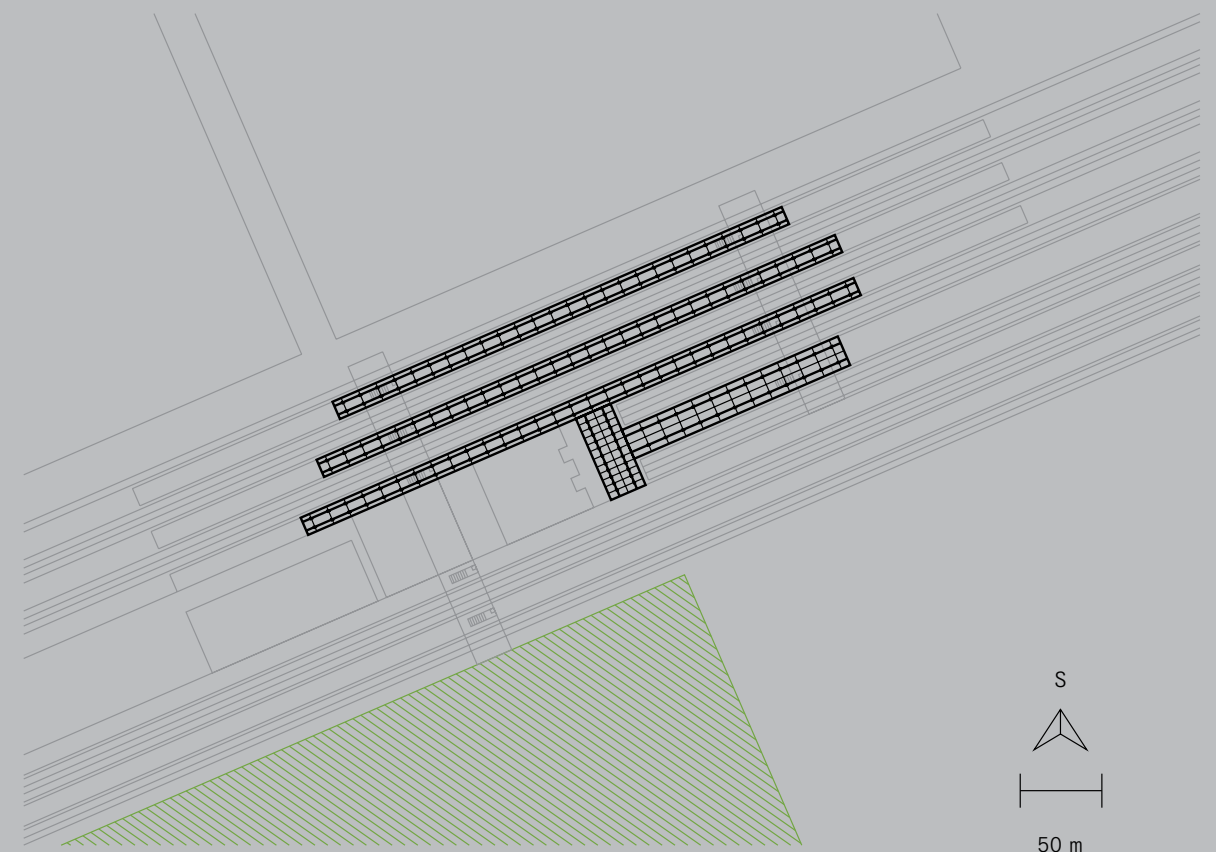


project manager:
Pavel Holík

implementation:
2014–2016

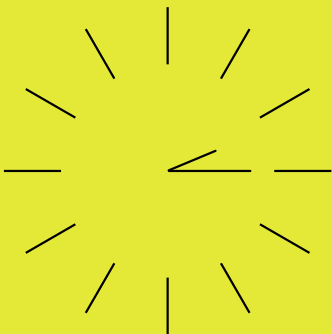


↖ Construction of the roofing for platforms is performed based on period manufacturing and construction standards, from cast-iron adorned columns; mutually connected rods, hot-rolled profiles, with visible wooden decking of the roof cladding the same as at the diagonal hall.



Day 1

2:15 p.m. Ostrava-Svinov



The concentration of implemented projects that we've been involved in around Svinov is one of the heaviest, so we are going just a few dozen meters farther and learning about a project that took place in two stages. The first stage saw reconstruction and building of the Ostrava-Svinov railway station and revitalization of the station's forecourt area (2001–2006). The second stage continued with construction of a new transport terminal connecting rail, road and tram transport, and linking the reconstructed railway station with the road overpass Svinovské mosty (2011–2013).

The group of special projects includes unique implementations with which you can become familiar here in the CR and abroad. In terms of sheer volume, they are often the largest, and the most demanding in terms of technology, time and money. They can be broken down into two groups. Examples belonging in the first group include construction of the railway station in Łódź Widzew, bus stops in Wrocław and the bus station in Michalovec, where we are the creators of the design and structural solution. We worked on them from the study and contract documents to the final implementation.









The second group includes stops along the railway in the Spanish cities of Zaragoza and Murcia, but also the Mošnov and Svinov railway stations. These were designs of other architects and design engineers, for whom we provide mainly structural solutions and consequent implementation. For these contracts, we search for a technical solution matching the architectural likeness of the drafted design. Pavel Holík is another of our project managers who has been involved in implementing special projects. One of them involved metro exits in Warsaw. For him as well, managing international projects became a common activity. We supply or produce directly in the given place abroad. The most important thing that we gain from these demanding, long-term projects is the wealth of experience that comes from tasks and requirements that we encounter for standardized constructions. Examples include the expansive structural glazed facade in Svinov or the vegetative roofs of stops in Zaragoza. Thanks to international projects, we also come to foreign countries with a differing approach to transportation constructions. The relationship of Spaniards to the public space and resolving transportation construction projects is unusually active and open. The common denominator of Spanish projects is graciousness and courage, as well as public interest. The inhabitants are all curious about the results of public contracts that they will later utilize.



Ostrava-Svinov



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Svinov 1st stage

Reconstruction and completion of the Ostrava-Svinov railway station and revitalization of the station's forecourt area was one of our largest projects. We contributed through design preparation and consequent implementation. The existing historical station building was originally situated along the street. By demolishing two buildings opposite one another and two distant buildings, new space was formed in front of the railway station for a new bus station. Rail and bus transport were thus concentrated in one place.

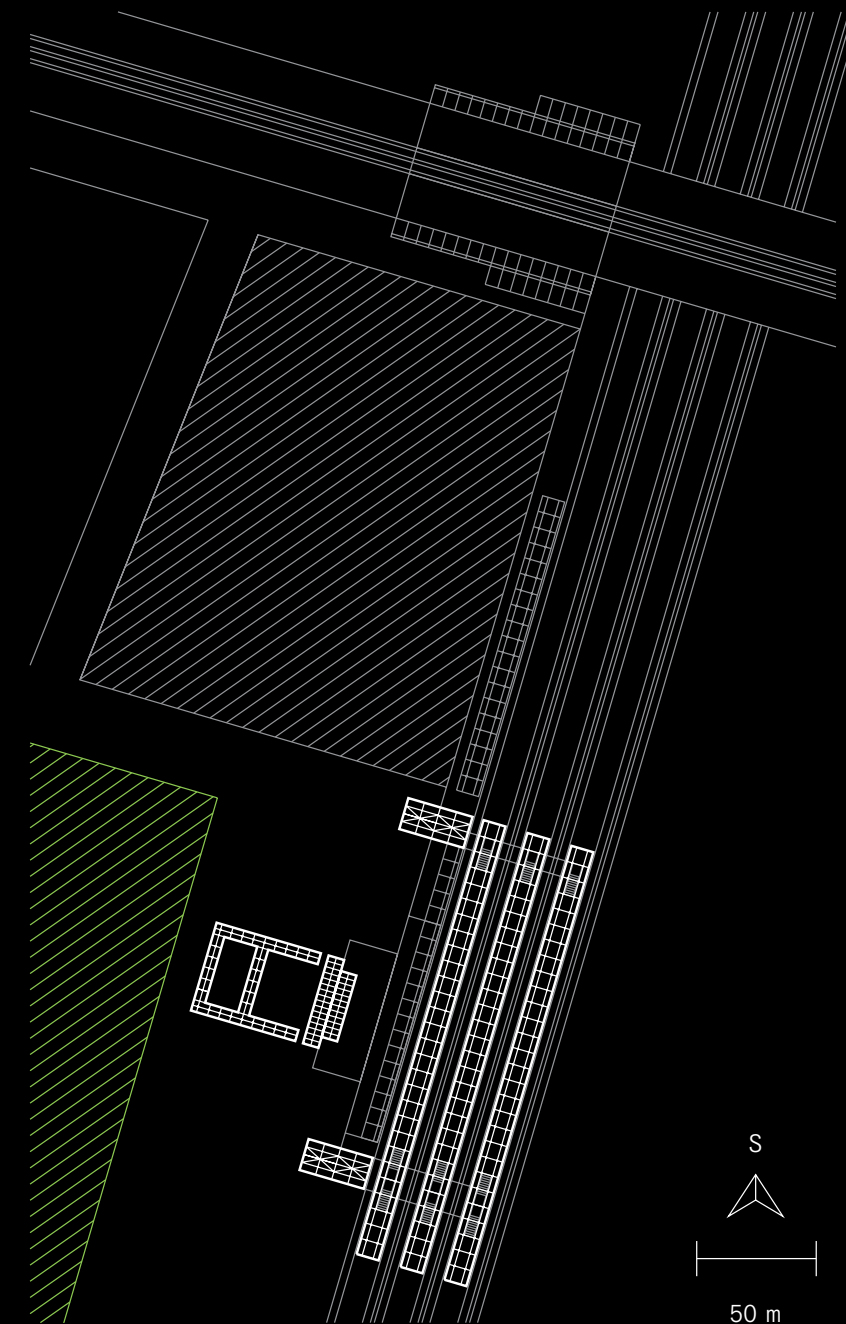


The year 2003 marked the start of reconstructing the original historical roof of the first platform and the station building based on design of the studio Ateliér Filandr. Also completed were construction of a new railway station vestibule and modification of the station's forecourt area. During the first stage, first island platforms were covered with shelters coming from the type *volans*, followed by construction of exits out of new pedestrian underpasses. Their structure is filled with tempered safety glass; cladding on the sides is formed by structural glazing on point fixtures. The steel-glazed structure covers the space between the exit from the pedestrian underpass to the railway station through the historical station building. For creating the roofing over bus parking in the railway station's forecourt area, we used suspended tempered laminated safety glass supported by steel structures and secured with stainless steel cables. This entire system of suspended structural cladding was developed by mmcité+ and certified at Brno Technical University VÚT in Brno together with the statics and design of such implemented structures.



The history of the Ostrava-Svinov railway station reaches back to the 1840s, when it became part of the Emperor Ferdinand Northern Railway. Its original Neo-Baroque building has undergone complete reconstruction. It received replicas of its historically valuable facade, as well as interior stucco adornment, windows, doors and other interior furnishings. The result of reconstruction is a return of the building to its original appearance. Sheltered platform no. 1 was transformed into an outdoor

waiting room with trees and the original stands. To increase the capacity of the station building's interior space, a glass vestibule was added, housing the Czech Railways ticket offices. Leaving it, passengers enter the historical building with more operational areas including waiting rooms, restaurants, shops and various services.





The dominant architectural elements of the new vestibule are its slender columns and the structural enclosure with frameless glazing, through which the historical part of the building can be seen. The extension's reinforced concrete structure is designed as a system of hinged slanted columns cross-braced by Maccalloy bracing in both directions. Hinged mounting secures their axial pressure stress with just minor bending moments. Thanks to the rigid interlocked roof plate and system of rods, the structure is sufficiently rigid, and column anchoring was designed by embedding into the framed reinforced concrete substructure. To achieve the required rigidity, the hinged slender columns are filled with high strength concrete. Glazing is designed without frames, and the glass is secured in joints on prestressed rods. The extension and forecourt are designed in contrast to the historical building, but their new elements make it stand out all the better.

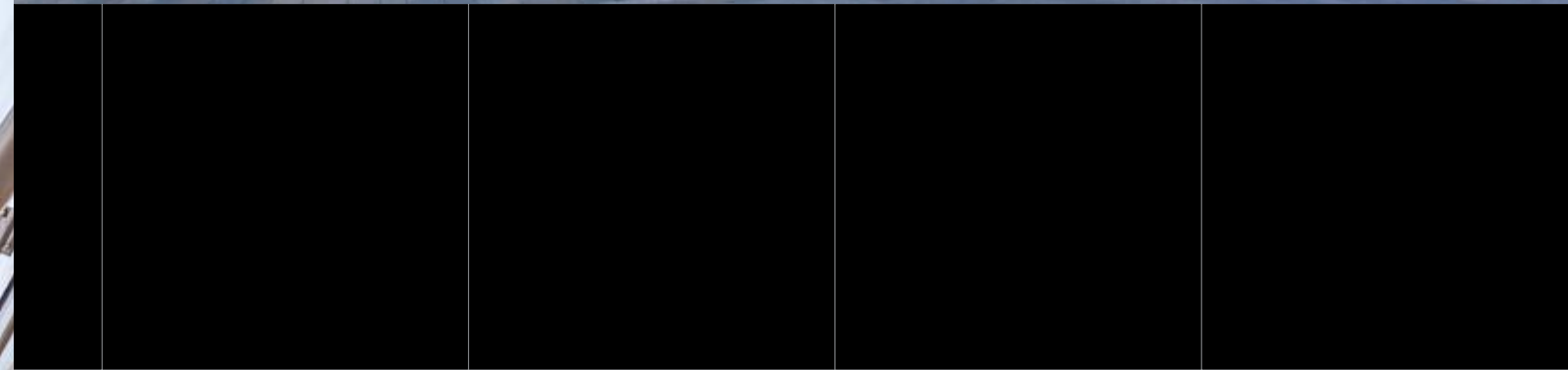
designer:
Ateliér Filandr

project manager:
Jakub Holík

implementation:
2001–2006

The forecourt features a water element formed by a system of pools, creating a pleasant atmosphere while providing natural air conditioning of the windward facade of the inner space of the vestibule.

In 2007, the forecourt revitalization project, reconstruction and extension of the station building in Ostrava-Svinov won the prize Grand Prix of Architects in the category of reconstructions.



Svinov 2nd stage

Transit terminals are a public space upon which high demands are placed. These are places operating 24/7, accessible day and night, and heavily burdened and used by passengers and transport operation itself. Therefore, in building such structures, materials must be selected with maximum service life while striving to achieve minimum maintenance costs. In addition, the space created must be sufficiently open, safe, brightly illuminated and having no dark corners. The goal of the second stage of revitalizing the Ostrava-Svinov railway station foreground was to build a transport terminal of superregional importance, which connects rail, bus, tram and personal vehicle transport.



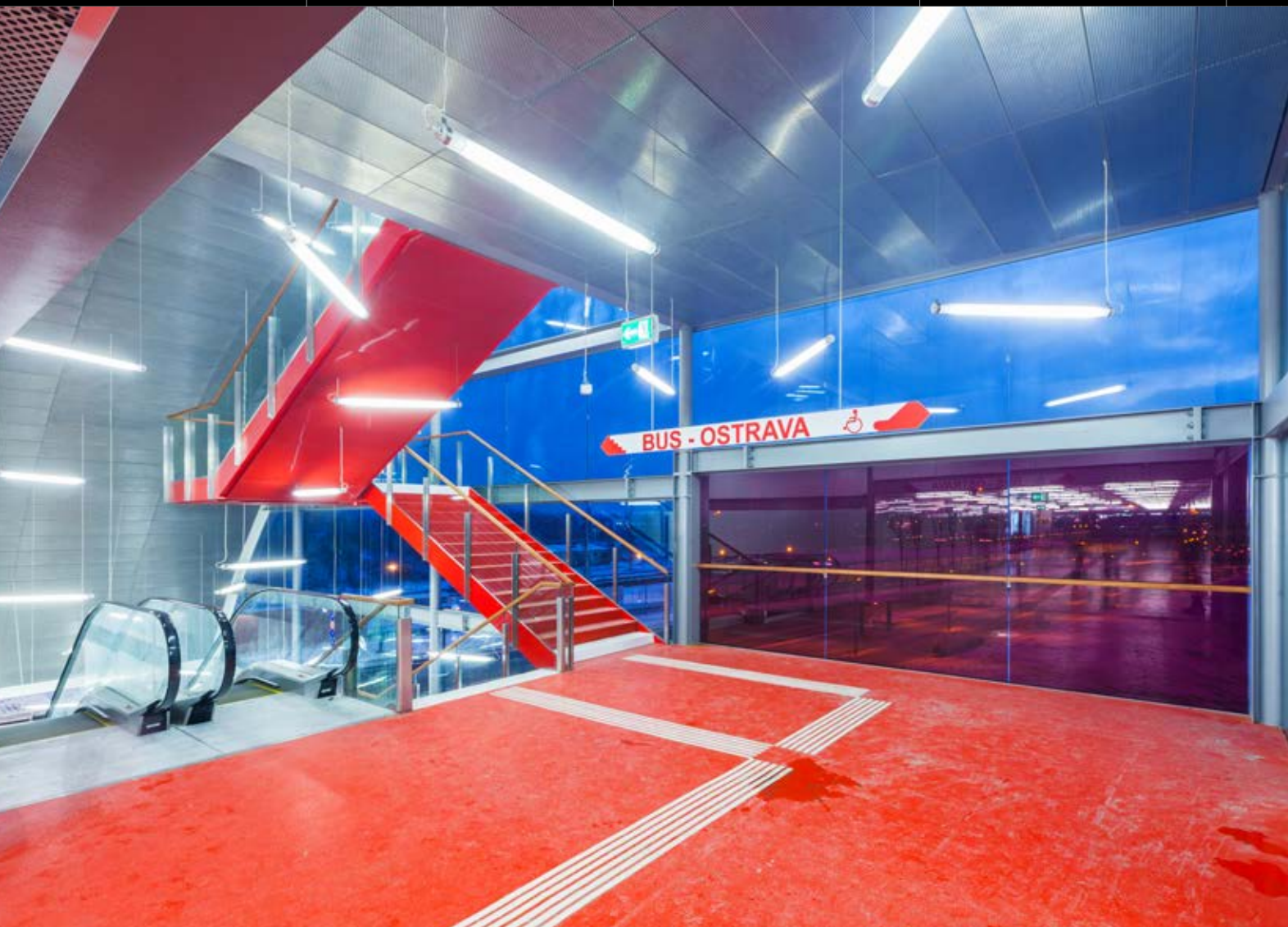


A modern transport terminal was born in Ostrava, connecting the reconstructed railway station with the road overpass Svinovské mosty (see Svinov 1st stage). The predominating aim of revitalization was moving the existing bus station under the bridges to enable connection of municipal transport to the transit terminal. The construction we implemented was divided into two phases, where the first saw the opening of the passage under the Svinovské mosty overpass, and reconstruction of Bílovecká street, where two roundabouts were created. The second phase continued by renovation of the roadway and tram tracks right at the Svinovské mosty overpass. New roofing of bus and tram stops was gradually erected. Platforms are located on and below the bridges, thanks to two lateral and two internal stairway towers, which interconnect three floors, where barrier-free access is provided to all departure points of this transportation hub. Besides construction of ground structures, project implementation included building foundations and supplying technological components – plumbing, high voltage installations and low voltage systems.



For technical solutions, we always take into account their visual effect. Buildings of the transit terminal Ostrava-Svinov were built as light steel structures with structural glazing using tempered safety glass. The subtle roof cladding of the building overlaid by a visual attic is installed with sandwich panels, where the outer skin is formed of functional steel curved sheets. The steel structures of the building are galvanized and given a composition of corrosion protection with minimum service life of 20 years. Acoustic ceiling panels are installed in the interior ceiling. The dominant color that arose from the architect's request was red. It is found everywhere people move about.

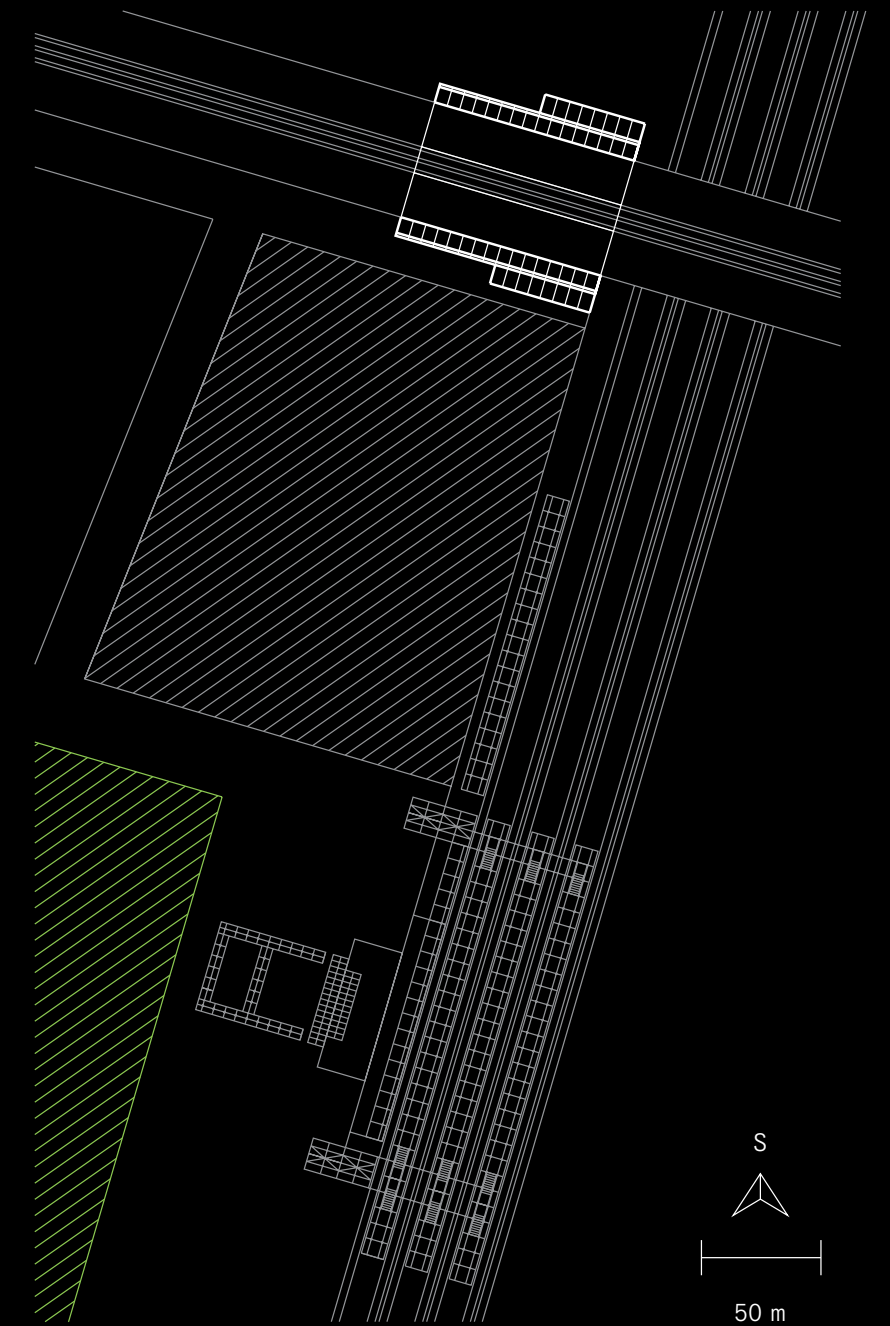
Thanks to the building's transparency, the burden of vandalism is decreased, and costs for artificial lighting are reduced. Travelers are afforded a view outside and inside, which contributes to more natural orientation within the terminal.



designer:
Ateliér Filandr

project manager:
Jakub Holík
Tomáš Trchalík

implementation:
2011–2013



Zaragoza





Revitalization of the tram route in Zaragoza, Spain was one of our largest projects, and was also the first major project of mmcité in Spain. The architectural design is the work of architect Iñaki Alday of the company aldayjover. The building concept was grounded in creating minimalistic furniture design, respecting climatic conditions and protecting passengers from rain, wind and intense sunlight. Another task was to resolve the design of the roof so that it would appear as one thin line and

support the minimalist design of the entire shelter. So we took advantage of the structural properties of sandwich panels, and in terms of appearance, we achieved the feeling of a subtle, levitating board. The shelter was designed with a vegetative roof, so that the view from the windows of surrounding houses would suffer minimum interference.

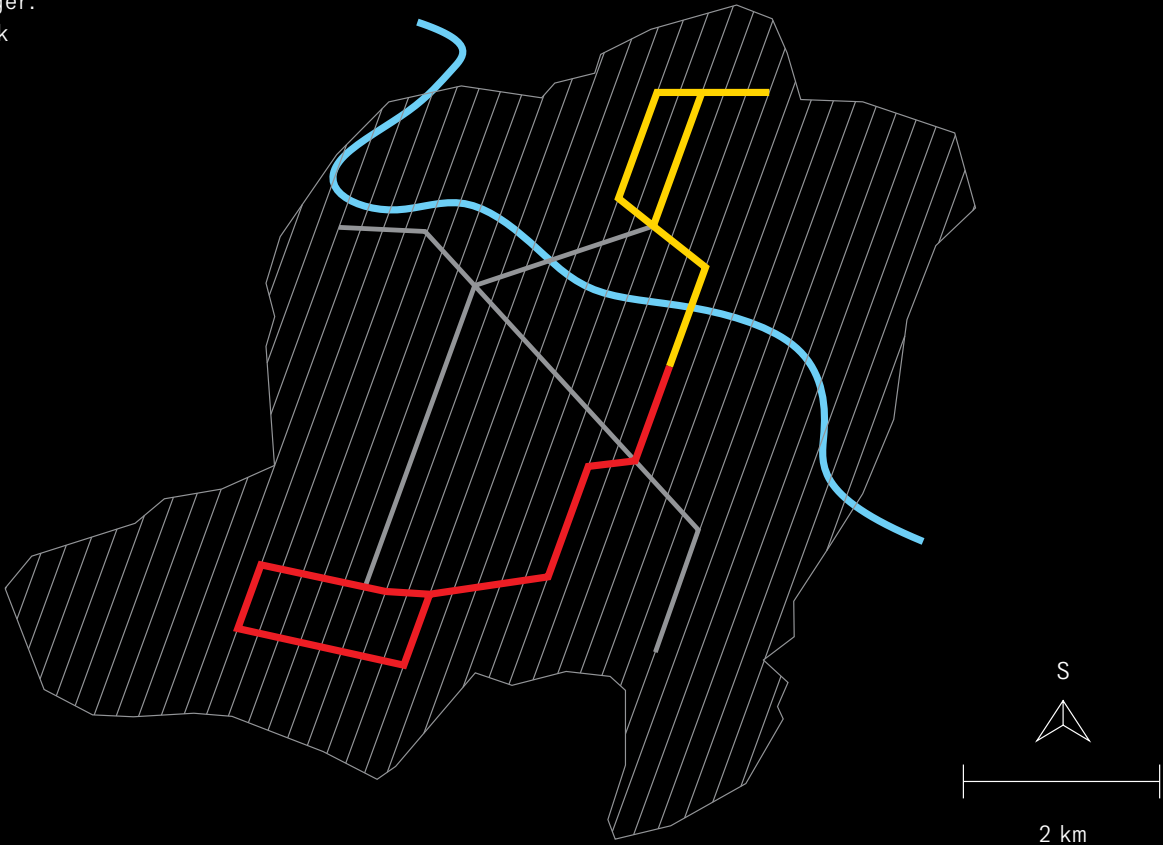
In light of the extreme weather conditions in Spain, it was highly challenging to select just the right planting for the roof. After we performed testing, we selected the common houseleek (*Sempervivum tectorum*), a plant that can handle such conditions while providing an insulating effect from the sun's rays. It thus prevents overheating of the roof structure while improving the climate for passengers. The entire set of furniture is dominated by light columns, thanks to which the stops are visible even from long distances, and they illuminate the surrounding area for waiting passengers, thus helping to increase overall safety. These columns also serve as structural elements supporting the roof while hiding essential technical infrastructure.

The uniformity and simplicity of the entire set of furniture has become a characteristic feature for the entire tram route. The main, arduous task was to find a compromise between shape, price and function, to combine the requirements of the architect and designer so that altogether, everything would render an air of simplicity, elegance and clarity. Throughout the implementation period, we acted as intermediary between the architect and the general contractor.

designers:
aldayjover
arquitectura y paisaje

implementation:
2010–2012

project manager:
Tomáš Trchalík



Murcia

Few know how to design public spaces as generously as the Spanish. Transportation constructions too are a publicly discussed and closely watched topic. Citizens and municipal representatives vote on what architectural design will be implemented, and student competitions are organized. In the case of Murcia, a name for the tram line mascot came from a competition in which children participated. The tram route in southeastern Spain is an example of a project that arose hand in hand with citizens of the city.

We implemented the project based on the architectural design of the architectural studio of Emilio González Miralles, Miguel Ángel Marín Yago (EMA Architects) and Fuensanta Carmona Belda. The result is a network of 28 shelters installed at individual stops of the 18-km long route. This design was selected by citizens and municipal leaders in a competition in which more than a dozen projects competed. The line joins the city center with the university campus and soccer stadium.



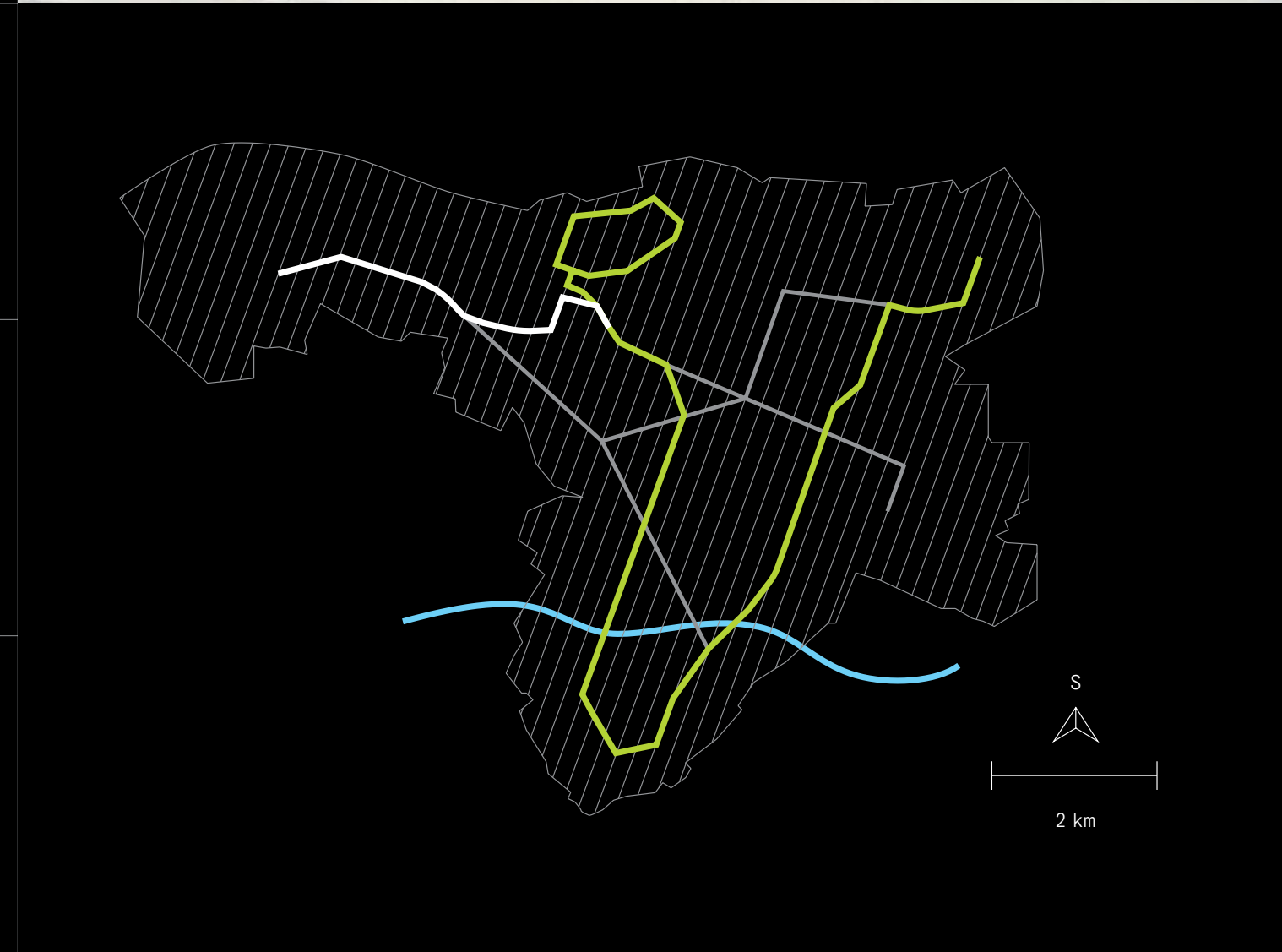
Geometrically shaped cube shelters are arranged in the shape of a levitating ring; the roof is produced from double-skin sandwich panel. At night the lights shine into the distance and act as an orientation reference point, while providing a safe place for all awaiting passengers.

Almost all stops in larger Spanish cities are equipped with a technical unit, into which the electrical installation of the track, computer and ticket vending machines is integrated. Individual stations were given complex furnishing with special showcases, columns and street furniture from the catalog of mmcité1 – *nanuk* litter bins and *radium* elevated chairs. By their original shape, the shelters unmistakably mark out the route of tram line no. 1, and are a new recognizable feature of this city. When the tram quietly approaches in the same pistachio green shade, the impression of a modern city is impossible to miss.

designers:
Emilio González Miralles,
Miguel Ángel Marín Yago
(EMA Architects) and
Fuensanta Carmona Belda

implementation:
2011

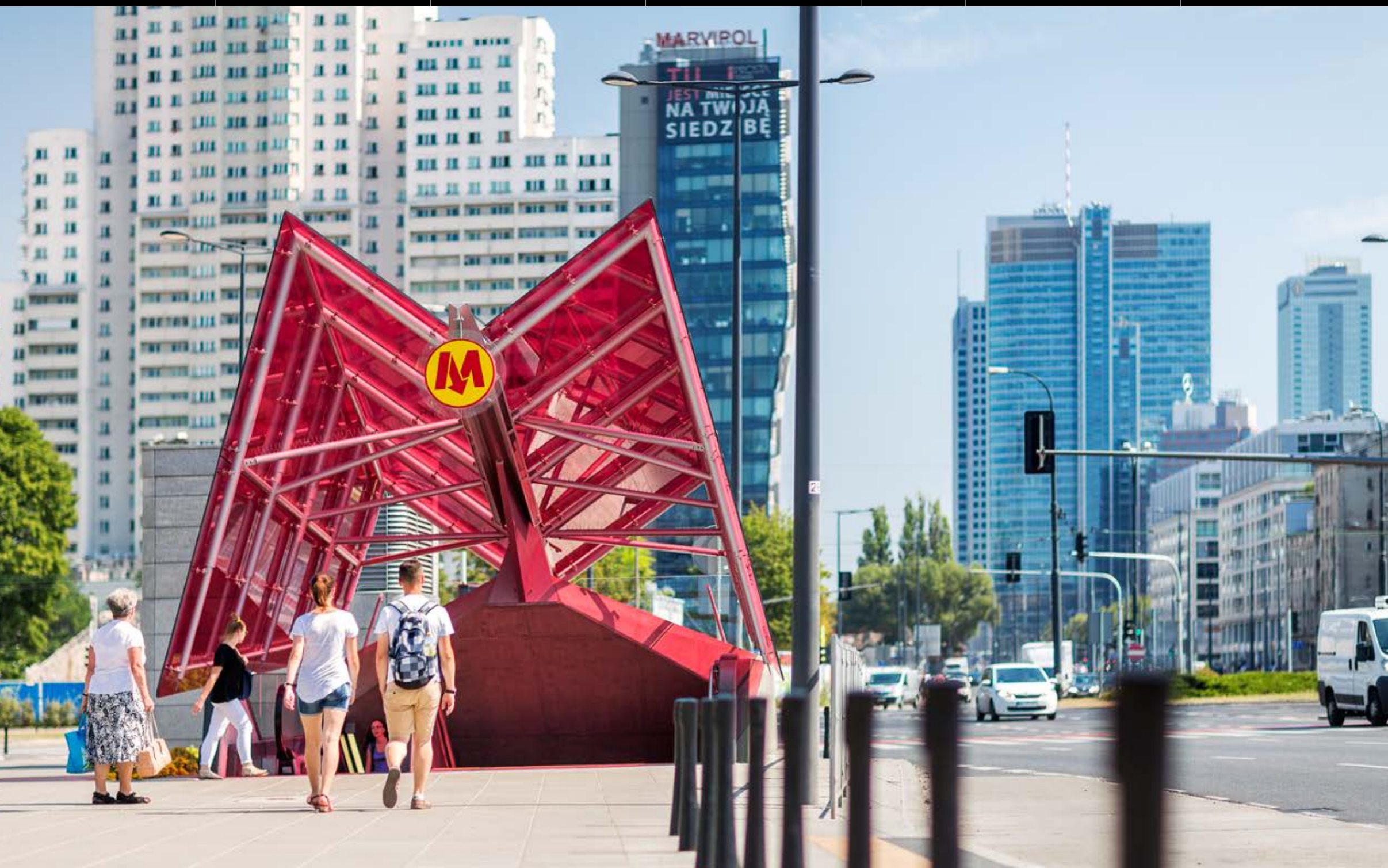
project manager:
Petr Motán



Warsaw

The roofing of the metro exits has changed the face of Warsaw. In Poland's capital city, 7 new metro stations and 47 roofed exits have recently been built. In light of the differing requirements of each site, one may distinguish in the project a total of 12 types of steel structures in various sizes; exit area shapes also differ. The creator of the colored glass shelter in the letter "M" shape is Polish architect Andrzej Choldzynski, also the force behind projects of several metro stations.

Regarding the complicated geometry of the exit roofing, careful planning prior to implementation was paramount. We took into account the statics of the entire building and its relating height increase, as well as the method of mounting large trapezoidal glass panels. Before project implementation commenced, a prototype was developed for verification, which was approved by representatives of the design office, the municipality and the general contractor.



Becoming the basis of the shelter was a steel frame structure comprised of a central beam anchored at one end into the reinforced concrete ceiling above the stairway exit from the metro. From this beam comes a group of five M-shaped transverse arms, onto which the glass roof cladding is mounted. In terms of statics, we had to design assembly components to guarantee the required geometry, so we had to ensure structural prestressing. The entire structure was given a fire-resistant, corrosion protection coat. The roof cladding is produced from safety glass in a specific color different at each station. The chosen color then continues into the underground parts of the metro, thus improving orientation to the given section of the metro system. The superior size and irregular trapezoidal shape of the glass was problematic for maintaining the required geometry of a unified pattern drawing of the laminated glass. For this reason, a method of anchoring the glass to the steel structure was chosen using stainless point fixtures with the option of rectification. In the valley, a stainless drainage gutter was installed with electrical heating to prevent freezing.

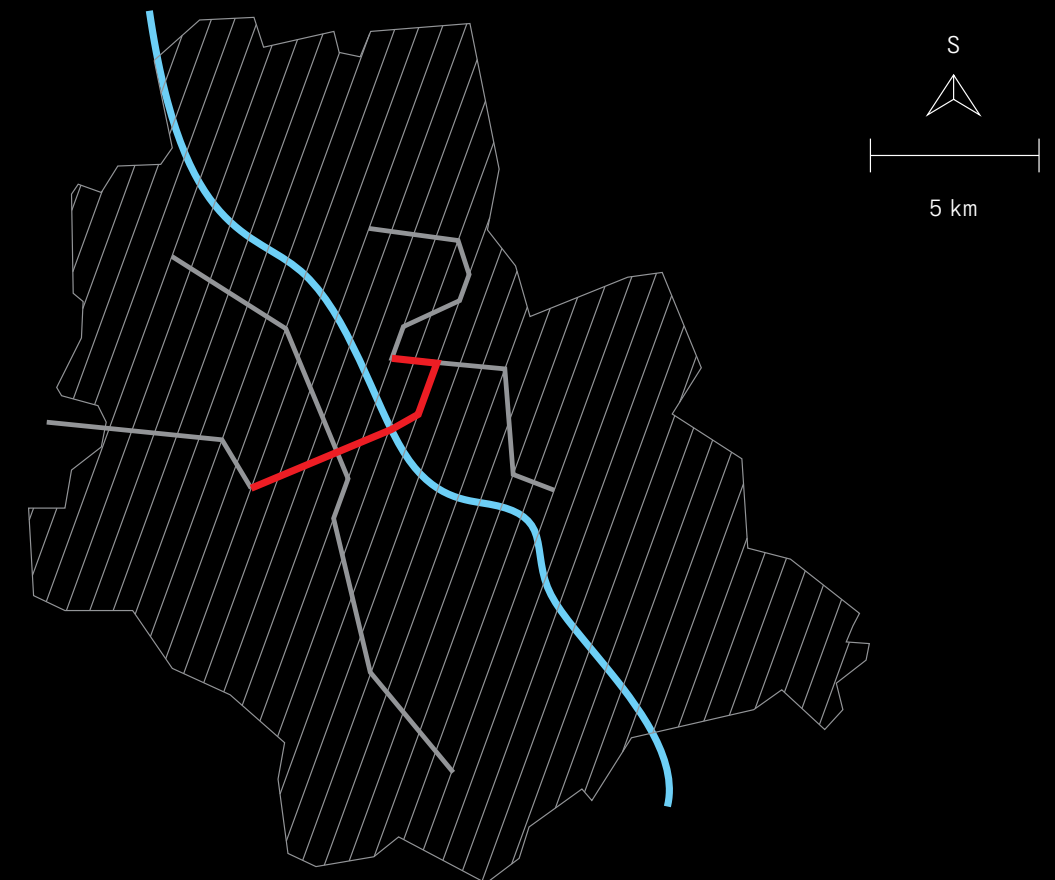
The project also included building a bus terminal at station C14 "Stadion narodowy", where the exit roofing was assembled simultaneously. The steel structure of the metro exit here is founded upon a reinforced steel structure of the retaining wall of the railway bed. Rods are suspended from supporting columns, onto which the pent structure of the roof cladding is mounted with distinct arch in the horizontal plane. This is made up of a mosaic of clear and colored semi-tempered laminated glass.



designer:
Andrzej Choldzynski

project manager:
Pavel Holík

implementation:
2013–2014



Mošnov

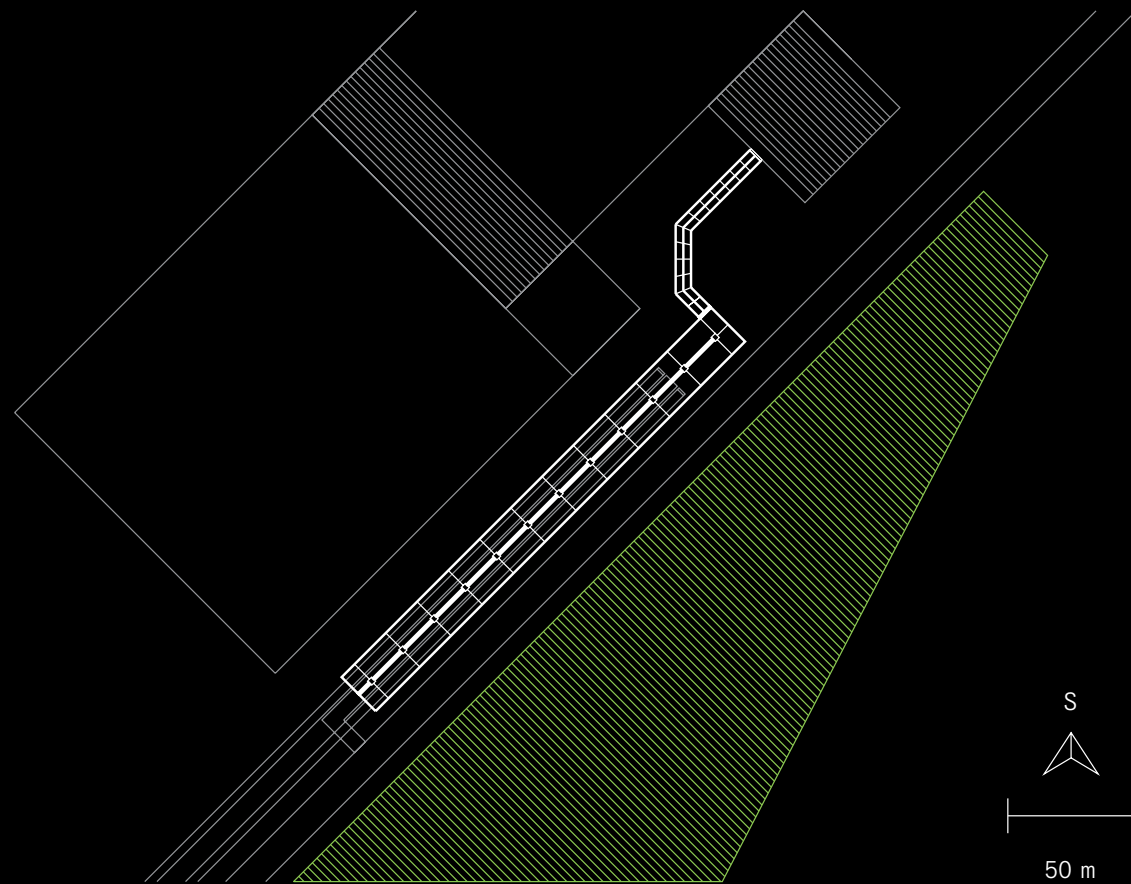
Ostrava Airport



The Leoš Janáček Airport Ostrava in Mošnov became the first place in the Czech Republic to connect air, rail and road transport. Thanks to this, the airport has become an important element in transport infrastructure of super-regional and international importance. For its users, this means that it takes just a half hour to get from the regional seat of Ostrava to the airport. This improved not only the comfort of passengers, but also made the entire city and region more attractive. Not the least of which, the construction helped in developing the Ostrava-Mošnov Strategic Industrial Zone. Transport of passengers through the terminal Mošnov – Ostrava Airport began in April 2015, just three weeks before Ostrava's hosting of the 79th Annual International Ice Hockey Championships. This contributed significantly to the tournament's record visitation. Among other things, the project is unique in that it is the first new rail line to be built in the country in over fifty years. The last line to have opened prior to this was the connection of Ostrava – Havírov – Český Tešín in 1964.

By its scope, the Mošnov airport project is one of the largest and technologically most complex constructions that mmcité+ has ever undertaken. It was interesting for us by its sheer complex submission, placing high demands on connecting the complicated technical solution with regard to the architectural requirements for the overall tone of the building.

The new transit terminal is formed of buildings of the existing airport departure terminal and the railway station interconnected by a corridor. The railway station building is closed off on three sides by an inclined glass facade, the south-west gable remains entirely open for arrival of trains and other rolling stock. Such an arranged construction must resist great dynamic loads, and it is demanding also in terms of the structural static requirements.



Besides all terrestrial buildings and installation of minor architectural elements, implementation by mmcité+ also included foundation of structures and technological parts of buildings – high voltage installations and low voltage systems, air-handling systems and plumbing. Another part of the project was the fire protection solution of structures, grounding and measures preventing stray currents. One of the hardest tasks we had to resolve was the glass facade of the railway station

made from suspended, large format glass panels 5×2.5 meters in size, by means of their anchoring, dilation and consequent configuration. The external cladding is designed in combination with clear glazing using opaque facade panels. The facade complies with the safety conditions P2, joints are modified to prevent sticking an object through.



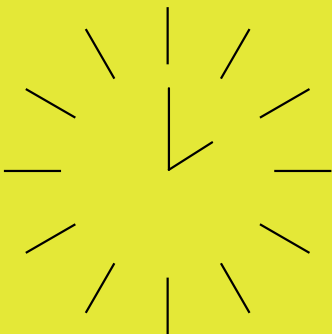
designer:
KANIA

project manager:
Jakub Holík

implementation:
2011–2013

Day 1

4:00 p.m. Mošnov



Designing how assembly of individual structures and joints will take place is no simple task. Along our tour we arrive at the Leoš Janáček Ostrava Airport in Mošnov, where we built the new transit terminal. By its scope, this project is one of our largest and technologically complex constructions. It was interesting for us by its sheer complex submission placing extreme demands on connecting the complicated technical solution with regard to the architectural requirements for the overall tone of the building.

The design engineering department is led by Tomáš Graubner, who, along with his team, sees to it that everything is built according to the designer's idea, but in a way that does not complicate the work of the assembly team. They draw out more complexly shaped elements within the structural design into symmetric units. The principles and procedures they apply are with slight exaggeration comparable to Merkur building kits, or on the contrary, to a laboratory of inventors trying to come up with a technical solution of complex details. The precision that Tom and his coworkers uphold is visible from the drawing to the resulting implementation.



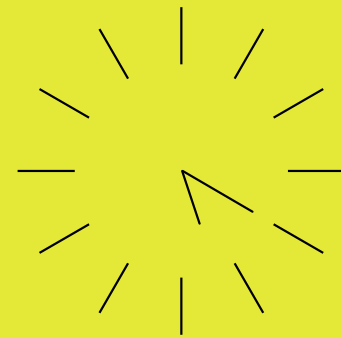
Day 1 and 2

6:20 p.m.

Pustevny

We head to our accommodations up on Pustevny Mountain in the Moravian-Silesian Beskids. Along the way, we encounter someone selling toy poodles, and the bus crew considers buying at least one “company” puppy. But we ultimately abandon this idea in light of the next day’s demanding program. With lodging up on Pustevny, we spent time together in the evening. Our morning walk then led to the statue of the pagan god Radegast and the Zvonička bell tower, built by design of Dušan Jurkovič over 100 years ago. The Secession structures with rich decor typical for Wallachian and Slavic architecture, as well as the lovely building Maměnka, or the Libušín restaurant unfortunately damaged by fire recently, are amongst the first more important projects implemented by Jurkovič, thanks to which he began his famous career. Wooden structures from the late 19th century remain icons of folk architecture, and it was quite an experience to experience them together.

That morning still, we left and headed for the Czech-Slovak border and into Slovakia to the newly built railway stations in Púchov and Trenčín, along with a stop in Bytča. We also classify the railway station in Trenčín among special projects because we were able to open the topic of graphic design, to which we apply much care and would like to draw even more attention. In a simple yet economic way – by use of graphics, letters or color accent – it is possible to change the atmosphere of a transport structure, make the space more pleasant for passengers, and bring into it a smaller scale and detail. For railway and bus shelters, strict standards and rules apply to which we conform. One of them is the method of designating the place where we are currently located, i.e. a known label with the name of the station on a blue base. But this need not remain only here.



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			Vlašim	84
			Břeclav	88

Trenčín



We consider the railway station in Trenčín to be pioneering in many ways. To us it proves that it is possible to create from a standardized shelter a visually interesting space, which is cultivated, functional and pleasant for its users. We also categorize it into special projects due to its scope and the complex solution of the entire project. Besides the main structure, we also built the roof over the pedestrian underpass exit and gave the train station an orientation system and new furniture. We attempted to suppress the perception of the main roof structure to the benefit of illumination and glass spaces at the platform and on the roof, which help create a more intimate feel in the middle of this large station. Also contributing to this is the use of new furniture and color graphics.

Questions of graphic design are not a very hot topic in train stations, often confined to standard railway sign compliance. In Trenčín, we were able for the first time to adequately incorporate graphics into the resulting appearance of the platform, thus connecting the name of the station into the overall graphic style, while creating a space that communicates with the waiting travelers and directs them to protected places with a pleasing atmosphere. This is attributed to the selected green graphic line used on the glazed platform divide in the double-skinned roof. The color thus reflects from the sides and above. The basic roof shape comes from the structure screen.

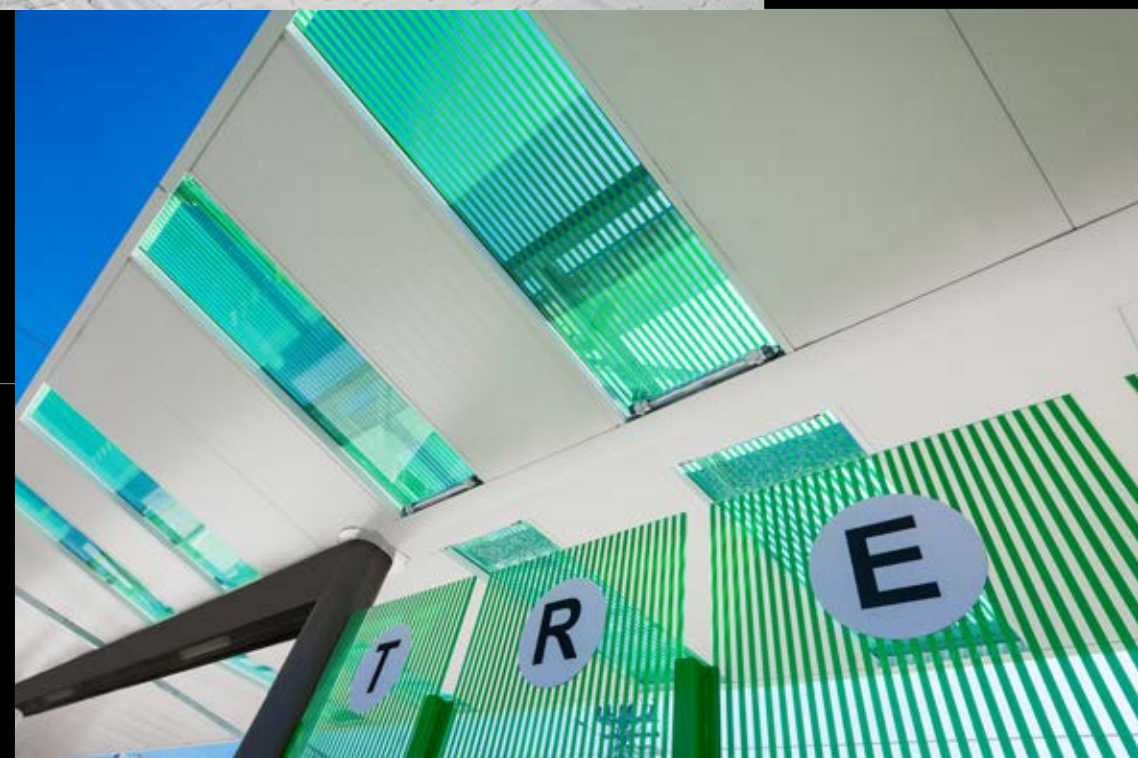
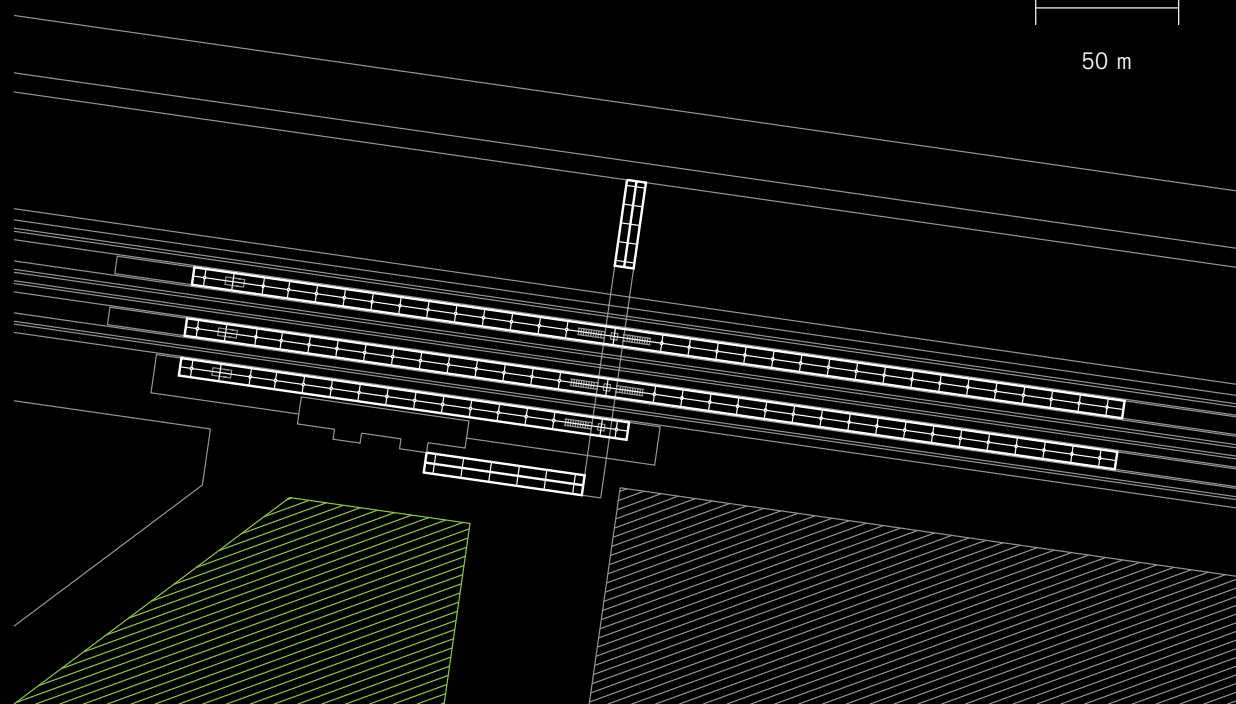
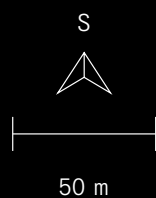


66

Street furniture is often an invisible part of stations and stops. In Trenčín, we opted to use furniture from the *bis-trot* line, which satisfies all requirements and is interesting in terms of shape. The selected color red compliments the graphic design. *Bistrot* elements are a new type of furniture created from steel profiles and highly resistant HPL boards. The simple round seats are located beside the glass wall, which also functions as a back rest, and the added table then can be used as an armrest.



67





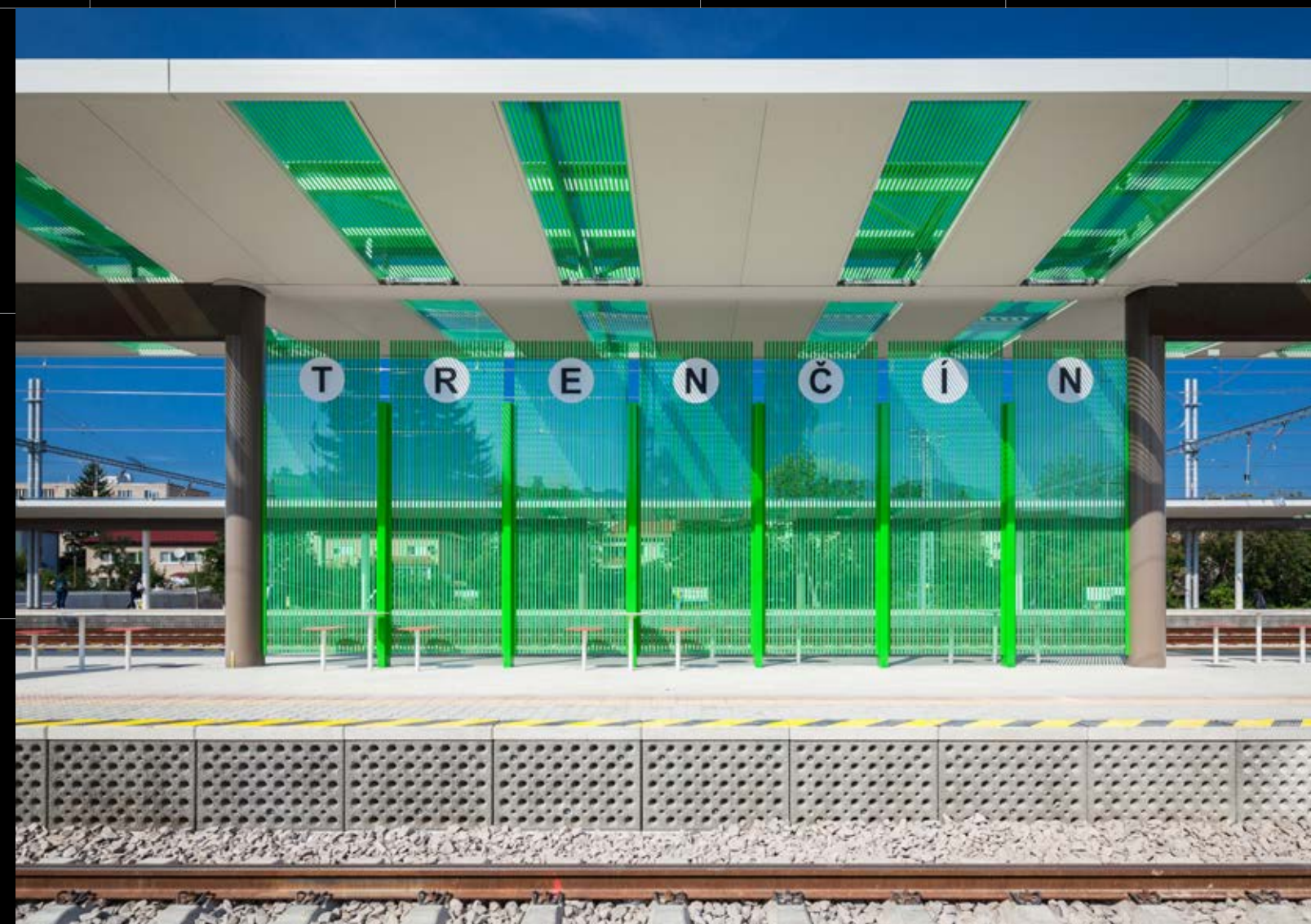
Trenčín is one of the oldest cities in Slovakia. Thanks to its geographical location in the middle of the central Pov-
ázie region, it also became an important center for trade
and industry in the mid-19th century. Mainly contributing
to this was the railway built to link Vienna and Budapest,
which was extended to Trenčín in May of 1878. Today the
station is a part of the main corridor of Slovak Railways.
It serves as a backbone transport route from eastern
countries, and both national and international lines run

right through it. The aim of the construction was to
modernize the transport route with existing parameters
to an upgraded track with a limit of 160 km/h, in order to
correspond to modern standards of railway transport with
direct connection to railway lines in neighboring countries.

design cité+

project manager:
Pavel Holík

implementation:
2013–2014

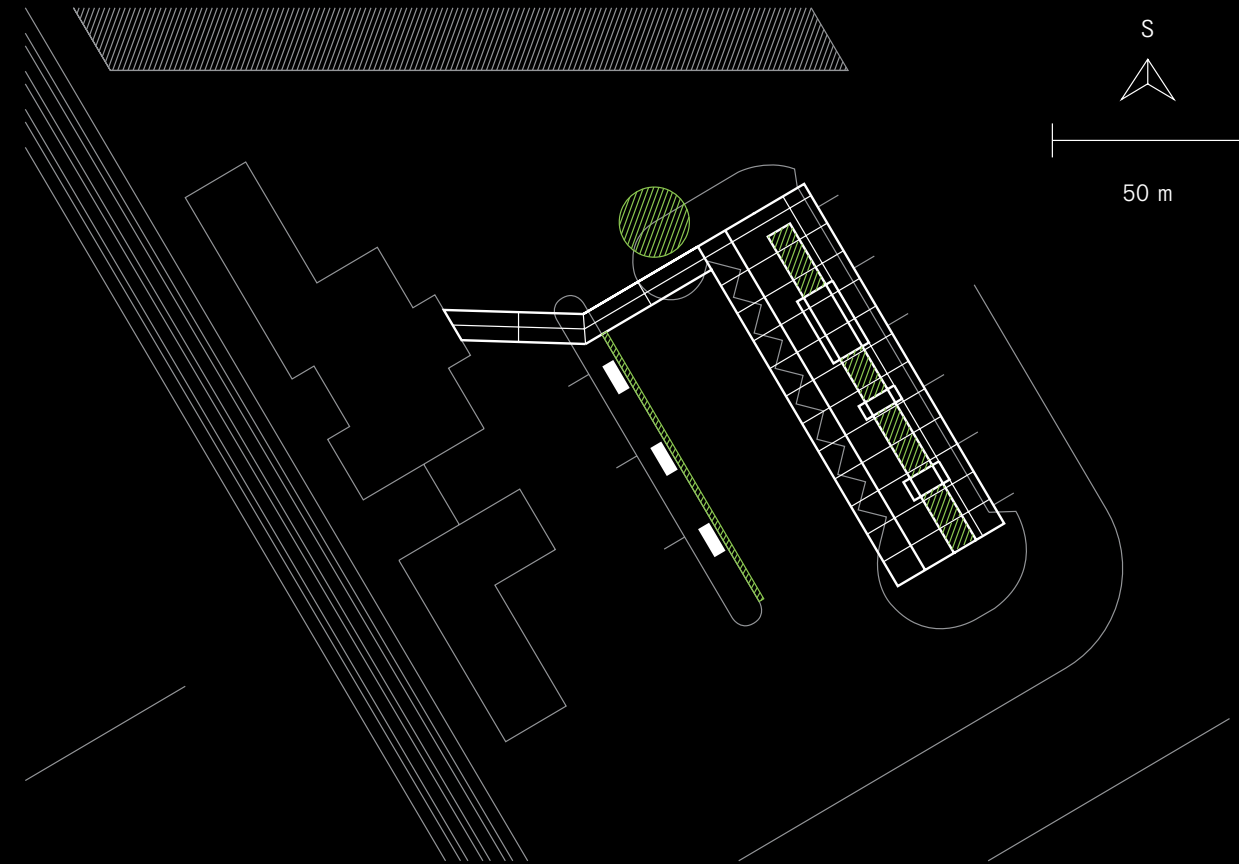


Michalovce



One of the most expressive elements is the climbing greenery, which divides the exit and boarding part of the railway station for long-distance transport. The green strip is interrupted by corridors, which have a lower height level and create an intimate space for travelers. Another green wall separates small structures of municipal transit stops from the bus parking. The double green plan makes the area more pleasant for passengers, while functioning as a curtain filtering out exhaust from departing buses. The railway station contains two types of roofs due to differing requirements for municipal transit stop roofs and those for intercity transport. Despite this difference, the spatial design does not look scattered, but to the contrary actually uniform in the sense of space and material. The basic supporting structure was left in hot-dip galvanized form, and we enhanced uniformity of the structure by adding colors in a combination of yellow, orange, black and white.

For us, this project is a textbook example of how to bring an element of contemporary architecture and design even to a small city without a huge budget.



While keeping financial costs to a minimum, we succeeded in bringing to the city of Michalovce contemporary architecture, which takes into account its users while respecting the context of the given location. In this example, we would like to demonstrate that for us, it is not important how big of a mark we leave on a city, but how it will affect life therein.





MICHALOVCE



design cité+
element

project manager:
Lukáš Kohoutek

implementation:
2014



Wroclaw



Wrocław is one of the oldest cities in Poland, whose history reaches back to the 10th century. Today, serious attention is paid to cultivating the public space and restoring the city's embankment; cycle paths and green areas are being created inside the city. Municipal architect Beata Urbanowicz finds the public space to be of key interest. In 2012, the City of Wrocław hosted the European Football Championships. Upon this opportunity, we were asked to build new tram stops, whose route ended near the municipal stadium.

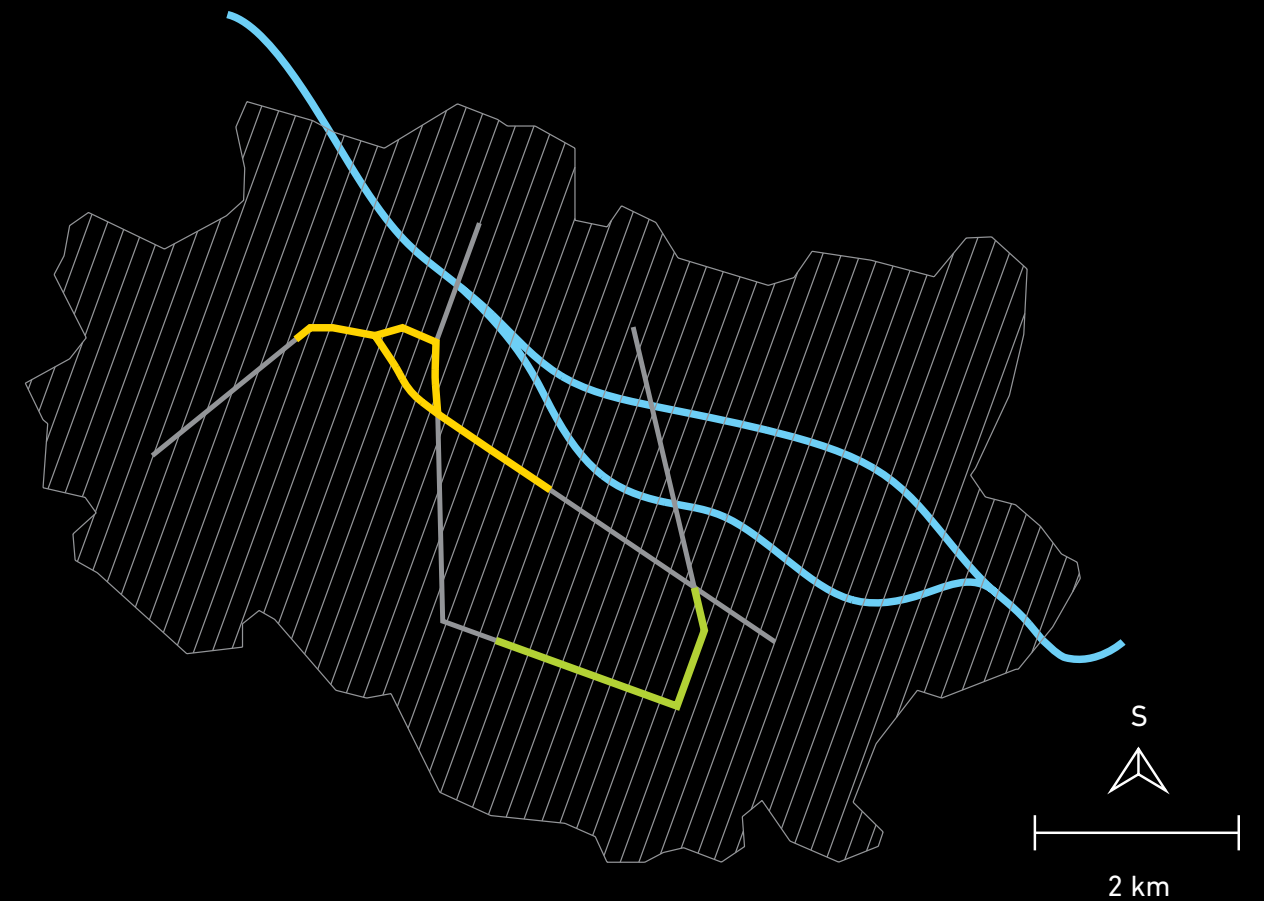
The shape of the shelters in Wrocław comes from the *aureo* line. As opposed to the standard design, here we used tubular purlins, and lights were added in the front part the structure. Glass with satin finish and acid-etching form the roof cladding, and safety bolts were used to secure the glass elements. Besides building new shelters, the project also includes supply of an information pylon, information boards with the names of stops, benches and litter bins. Into the pylon, preparation was integrated for installing electronic information panels and a showcase for posting transportation information or for advertising. In general, the shelter is more massive and more sculptured, suitable for exceptional events such as moving fans away from a sports stadium.

In Wrocław, a total of 12 shelters were created over two stages. Certain ones are built as double-sided stops enabling passengers to board from an island platform. Though this project can be ranked among the smaller ones, we find it a prime example of how we can further develop one of our standardized products.

design cité+

project manager:
Tomáš Trchalík

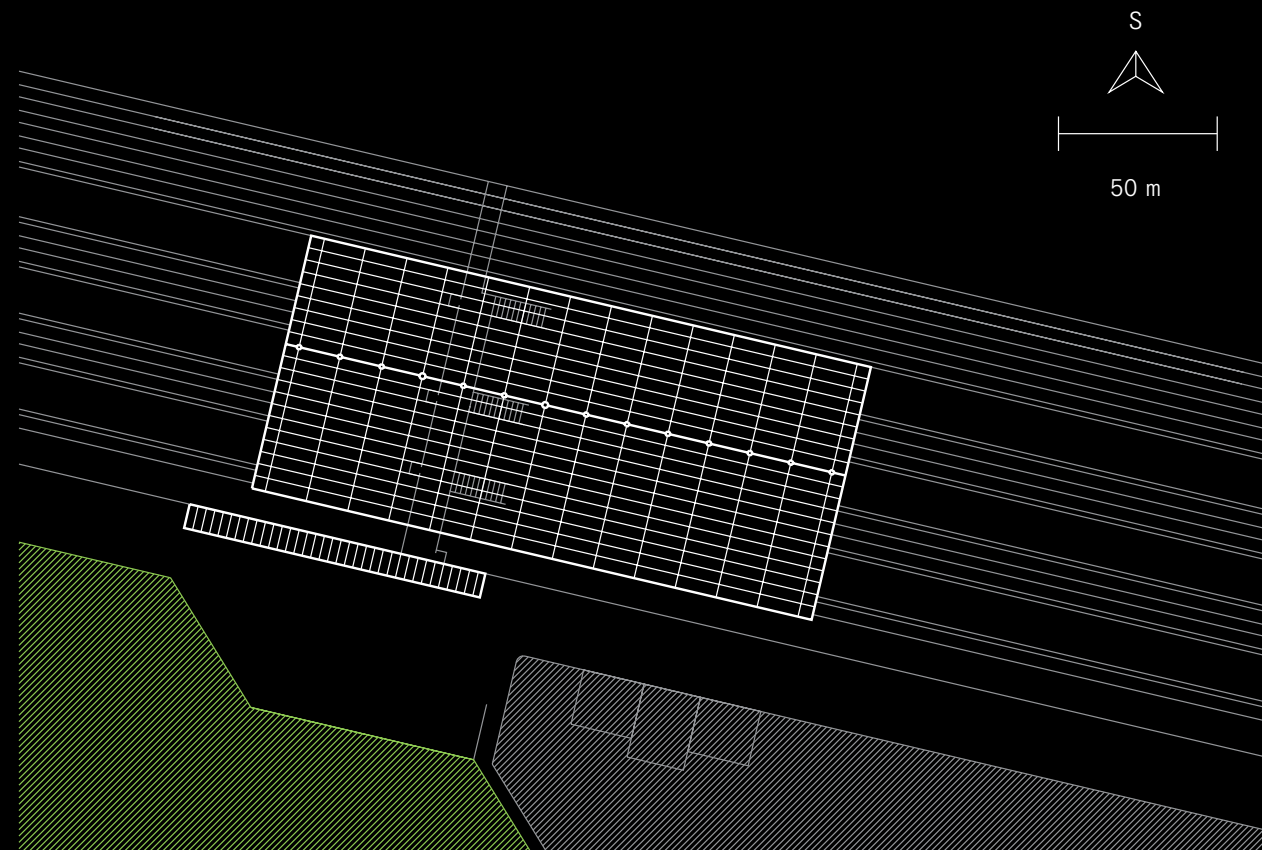
implementation:
2011–2012



Łódź Widzew

Łódź Widzew is Poland's third largest city behind Warsaw and Krakow. Łódź Widzew is an important railway and road transport hub in the city. Our task was to design and then implement roofing over three platforms, including the rails, in a size of 120×60 meters, the entrance to the pedestrian underpass in a size of 5×64 meters, and roofing over the entrance to the pedestrian underpass. This was one of the largest constructions that proved our experience and ability to cooperate. Despite being under a limited budget, we designed an elegant, interesting and functional solution, which is favorable to its surroundings and people who use it.





The rising wing of the roof is a distinctively shaped structure with an interesting cross section. Along the side at the station building, the roof is rounded and slopes towards the sidewalk, the appearance of the roof from a distance is therefore easily recognizable by its original profile spreading out over the platform. The roof cladding is in the rounded part of the roofing, which does not cover the station building, and bears the backlit sign "Łódź Widzew". One element running across the train station was the lighting. The lighting fixtures are located on supporting columns and are spread out to look like branches supporting the crown of a tree.

design cité+

project manager:
Tomáš Trchalík

implementation:
2013–2015

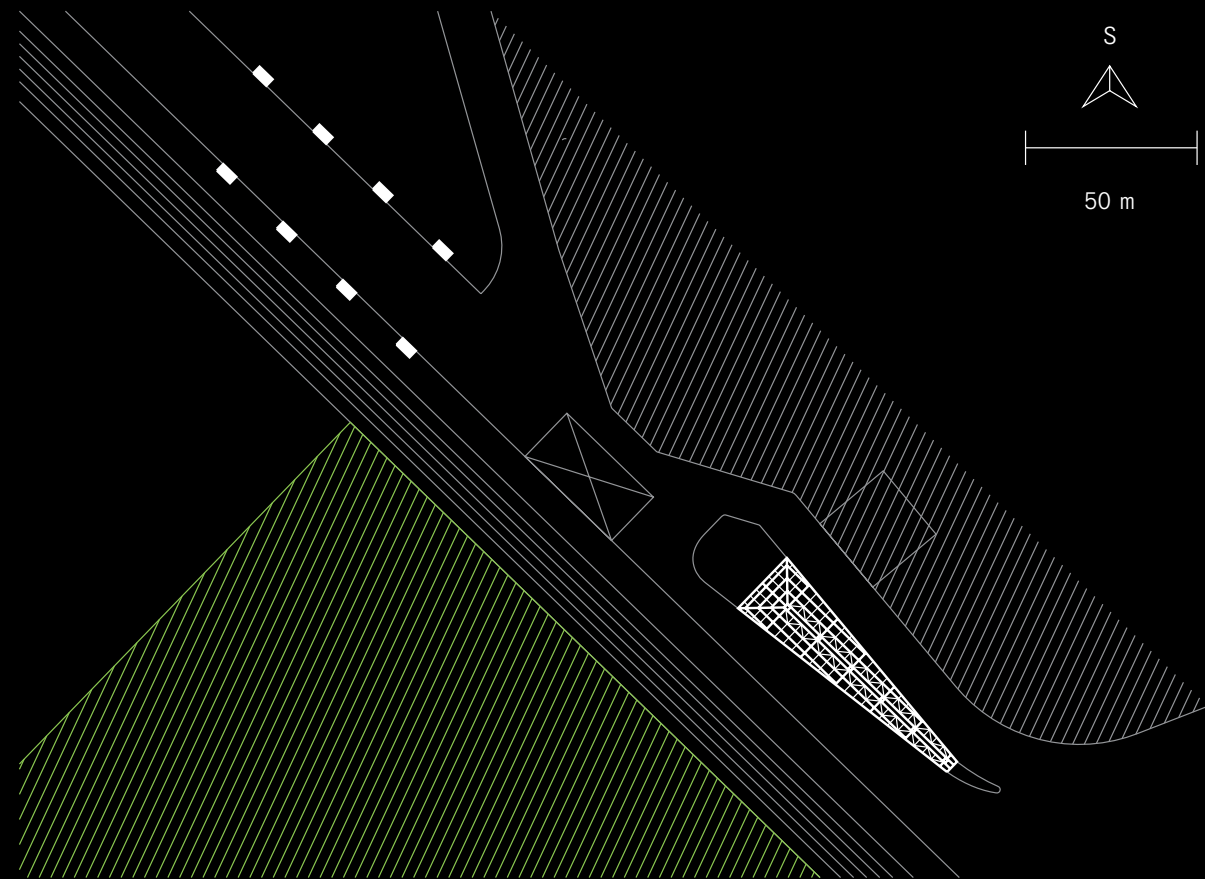
Implementation took place in three stages. The first two stages involved implementation of roofing of three platforms. The last stage involved installation of roofing over the entrance to the pedestrian underpass via ramps and stairways. The metal structure of the roofing features cladding with glass and expanded metal. Trapezoidal sheet forms the covering. The structure remains uncovered under the roof cladding, so it was necessary for us to resolve its visual appearance, so that despite its pure technical and functional properties, it would also be elaborated in an artistically appropriate manner. One of the new solutions that we designed for the train station in Łódź Widzew was building a space for bicycle parking, which we placed in the central part of the roofing over the entrance to the pedestrian underpass. We opened a space for cyclists that would not have been used otherwise.

Vlašim

The City of Vlašim is the gateway to the Podblanicko region and the land of the legendary Blanik Knights, nestled in the southeastern part of the Central Bohemian Region. Based on cooperation built over the years with local associations, non-profit organizations and thanks to European Union subsidies, it has been possible to gradually develop both the city and the region. The bus station project here arose in tandem with reconstruction of the station building of the Vlašim railway station. The designer of the transport and layout of the space is Ivan Horejší of the architectural studio 2H. In our design, we implemented the central roofing and adjacent bus stops. Thanks to this cooperation, a public space arose around the station elaborated to the last detail.

The condition of Nádražní street, which represents the main transport hub in the city, and its relating spaces was hopeless after years of maintenance neglect, and did not correspond to current standards. The entire street functioned as a transit road and buses had no chance to turn around here, so they often had to drive around the station. The key prerequisite for implementing the entire project was significant reduction in unused railway buildings, thereby creating space for a loop with covered island platform in close proximity to the station building, which now serves as a common facility for the entire hub. During reconstruction of the old railway station, a bus boarding island was created shaped like a droplet, functioning as a natural center of the bus turnaround point. Another longitudinal stop is found on the other side of the station building lining Nádražní street. Thanks to streamlining the function of bus transport, bidirectional transit could be preserved here, while alleviating the traffic situation in general. New street furniture was installed in the space in front of the station building (shelters, signs, benches, litter bins, etc.), and new pavement was provided that better resists the load from bus traffic.





The placement of the central space with sixteen stops on Nádražní street remained preserved for its linkage to the Czech Railways station and nearby transport company ČSAD Benešov, where there is a large space with facilities for parking and maintenance of buses and facilities for drivers and central dispatching. The only things remaining in front of the station are the departure and arrival stops and space for passengers.



design cité+

project manager:
Petr Motáň

implementation:
2008



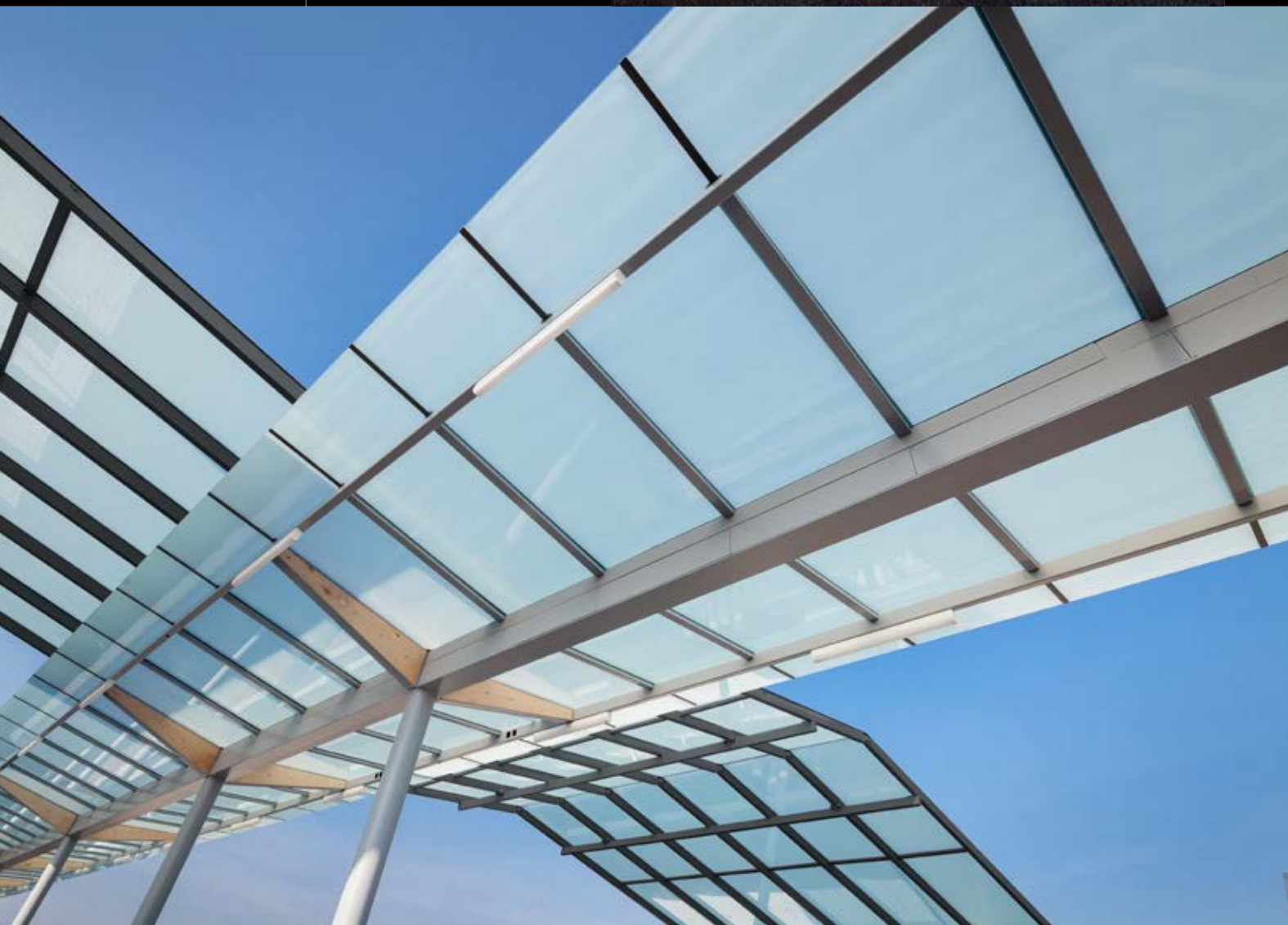
Břeclav



In 2013, a project was approved for building a new bus terminal in Břeclav. The city, which functions as a railway hub of international stature, was one of the last places in the South Moravian Region, which did not have its train station and bus station close to one another.

The new bus station built right by the railway station facilitated transferring between buses and trains. A total of 13 bus stops were built, of which 7 were regional, 3 were for municipal transport, 2 for long-distance transport and 1 for the exit. mmciť+ built this terminal, which is a fine example of implementing a large project while using a modular roof from the system series category.

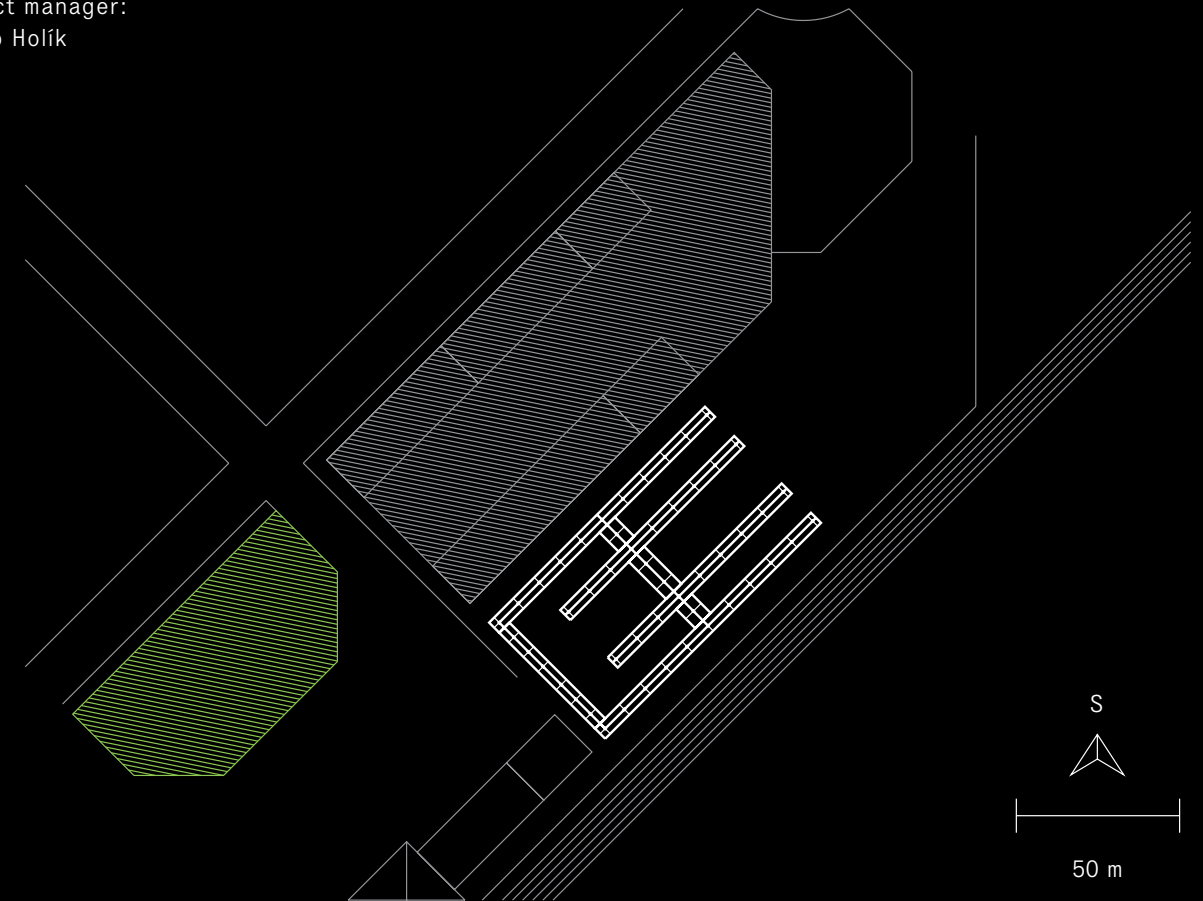
The basic shape design comes from the *regio* series, which combines a steel structure with wooden beams. This combination of materials disperses the view along the long platform, and creates its own smart-looking structure. Standardized structures were given a structure covering the bridge between individual blocks and respecting the transit profile of the bus. A distinct creative component here was the suspended broken structure overlapping the roofing of platforms and covering the crossings between individual stops. Two heights of the structures formed two levels, where the lower one is designed exclusively for passengers and the second for buses.



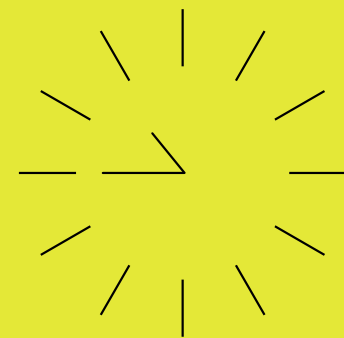
design cité+

project manager:
Jakub Holík

implementation:
2014



Day 2



10:45 a.m. Predmier

Railways and roads are specific public spaces where we spend up to several hours each day. Along busy roads and railways, noise barriers are our most frequent “visual partner”. The linear, seamless structures are always a certain limitation for either passengers or inhabitants living behind the wall, appearing in many ways with varying quality. For this reason, noise barriers became a topic that mmcité+ has engaged in, and it has designed several new variants appropriate for the open countryside, suburban areas and built-up areas in cities.

During the second day, we encounter several noise barriers, which are being built today along the route Považská Teplá – Žilina in Slovakia. This is a new product that we designed and developed in mmcité+, and, in cooperation with the architectural office ellement, we came up with the final design. Based on our design, the seemingly infinite structure can actively react to the surrounding environment. Redefining noise barriers did not just involve the visual component, but also the way of looking at the technical design, which, as opposed to ordinary noise-reducing systems known for being massive, are light, easy to handle and are moreover recyclable.



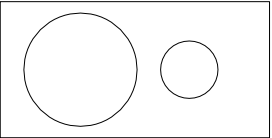
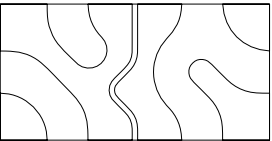

Noise barriers are considered an inherently utility construction that must fulfill acoustic parameters. They often form sections over several kilometers, which comprise the dominant element separating the area burdened with noise from ground transport in large cities, near motorways and main roads. In both cases, we consider the functional and aesthetic design as important. In mmcité+, we have been engaged for many years in cultivating the public space in transport infrastructure in the Czech Republic and abroad. While realizing the social importance of such constructions, we focus carefully on not only the actual design and structural aspect, but mainly on the phase of design and interdisciplinary dialog, thanks to which a high-quality project can emerge. Also belonging to this area is production and consequent implementation, but mainly gradual development, to which we ascribe the same importance.



Tomáš Vydra and Stanislav Sokolt are technologists developing the *noba* line of noise barriers. Preparing them took nearly two years; materials were tested in laboratories in order to come into conformity with all necessary standards. During development of new noise barriers, we decided to find a new alternative to designing the noise attenuation while upholding the requirement for noise-reducing properties, and with the option of expanding to potential increased requirements. The basic criteria included low weight of the entire structure, minimum demands on maintenance, easier assembly and working with recyclable materials. Materials ordinarily used for producing noise barriers have an expected service life of up to 30 years.

Thanks to the experience of our design engineers and designers with various materials, a suitable material for the noise barriers was found in PHS, which, thanks to its special shaping, fulfills the required parameters for noise barriers. The basic material was comprised of used freight and agricultural vehicle tires, new material can be recycled once again if the wall were to be disassembled. Besides its basic function and aesthetic design, this solution also fulfills the requirements for easy maintenance, speedy and simple assembly and economic savings of the resulting construction. As opposed to large concrete panels, during construction it is not necessary to use heavy machinery or a crane. The basic installation takes place using suction cups, which are used for quick and simple fixation to the panel. Designed with this intention in mind were the noise barriers *noba kolo*, *noba rizo*, *noba mlok* and the reflective panel *noba okno*.



								noba kolo	96
								noba mlok	98
								noba okno	100

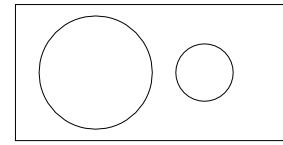
noise-reducing barriers

noba

→ The *noba* absorbing panels are created using a supporting sandwich panel made from galvanized painted sheet and a core made from PUR foam. A continuous absorber made from recycled rubber on the sandwich panel creates the absorbent surface. Pressing the recycled rubber into molds enables various visual variants of the noise barrier and its cultivated incorporation into the landscape.



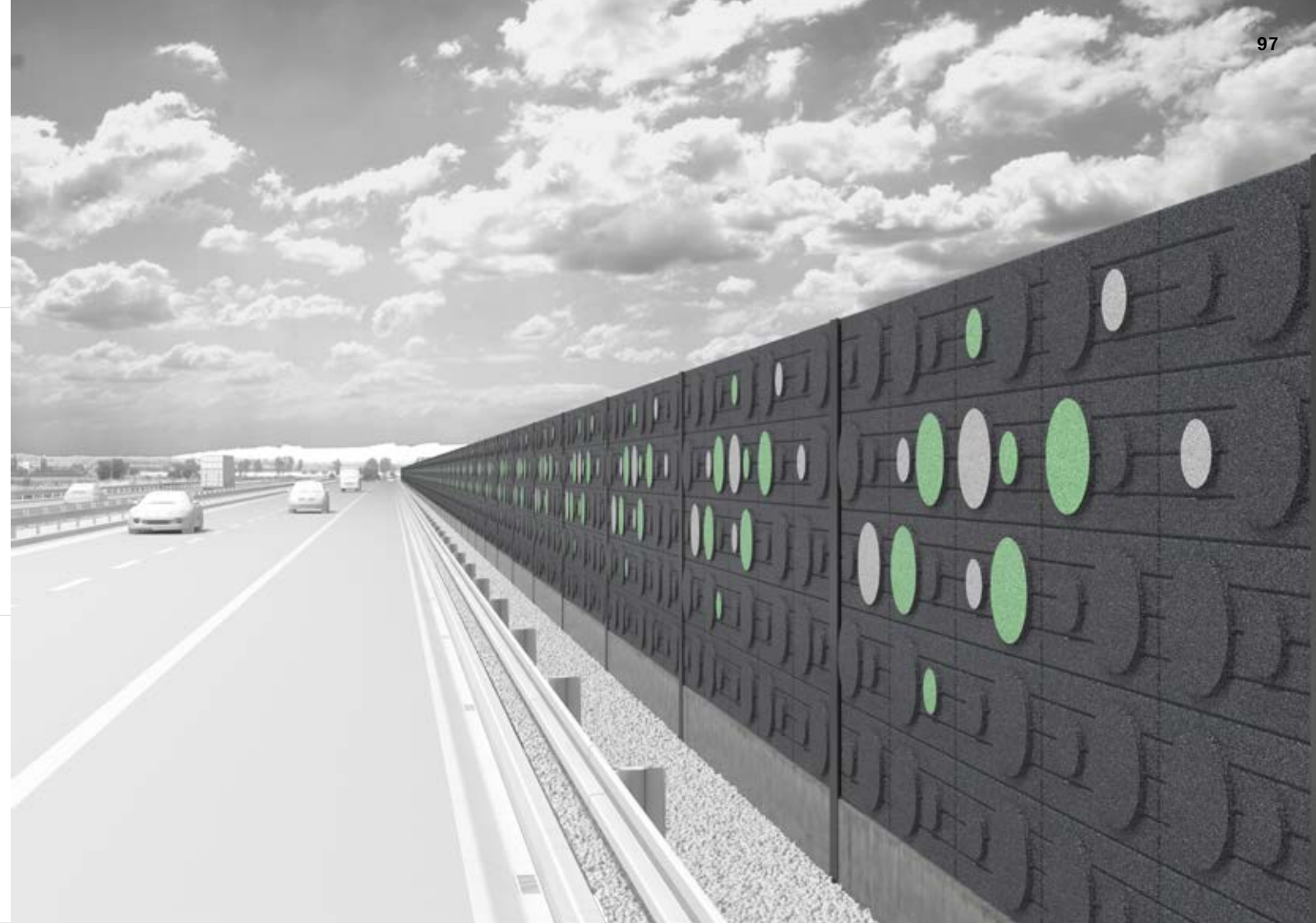
noba kolo

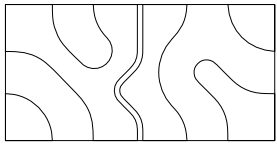


→ These noise barriers are based on recycled rubber, on which several decors are applied, which, like the base, can feature a color combination. A variant of *noba kolo* is designed primarily for use in urban areas. Thanks to the designed pattern and accenting of individual – larger or smaller – circles in the press, a wide range of possible compositions is created, from which the decor can be selected, which becomes significant and unique for the specific track. The color variability enables working with colored accent, contrast or optical illusion.



design cité+
element





noba mlok

→ The decor *noba mlok* on the contrary has an organic base inspired by natural patterns and mimicry. By using appropriate coloration, the wall may appear to be overgrown with climbing greenery, and optically blend in with the open landscape in the background. Both solutions enable countless distinct variations. The variant that combines the advantages of both previous solutions is *noba rizo*. This pattern based on horizontal lines is rather universal, subtle, and it enables creation of various structures thanks to its color accents.



design cité+
element

noba okno



→ Another subtle variant is the reflective panel *noba okno*, which is transparent, appropriate for places where it is not possible to work with an absorbent variant. The composition division of the panel retains the decors of the previous variants (*noba kolo*, *noba mlok*), but this print also functions to create bird safe glass.

The panel was laboratory tested under European standards for use on road and railway transportation constructions in the Czech Republic and the Slovak Republic respectively.

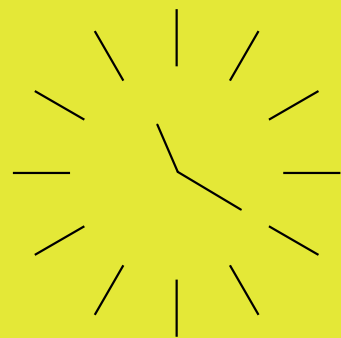


design cité+
element



Day 2

11:00 a.m. Plevnik

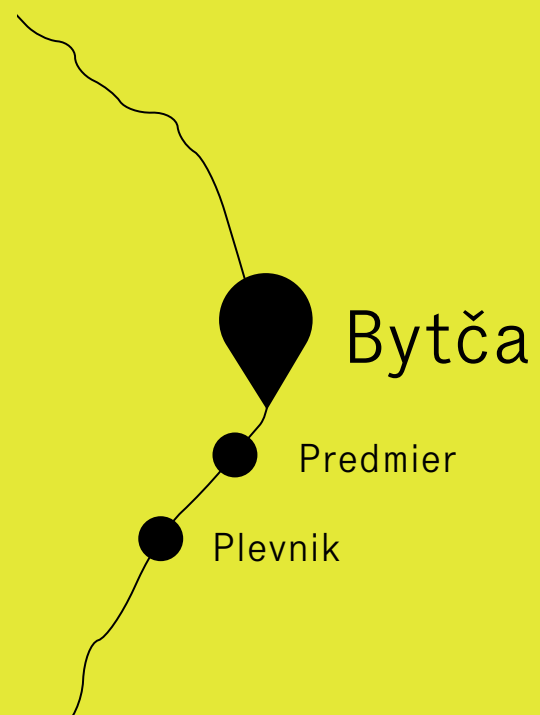


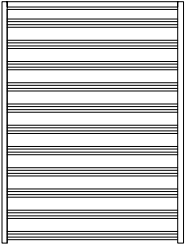
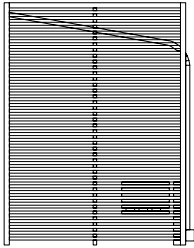
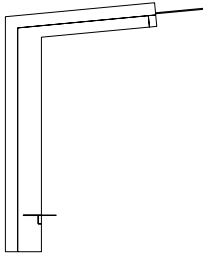
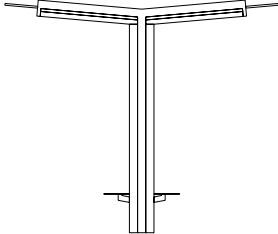
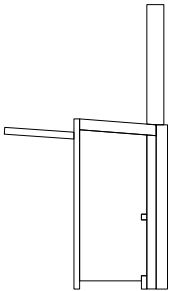
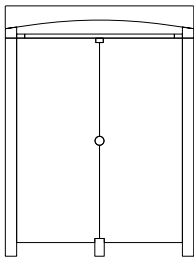
In the District of Bytča, we also stop in the city of Predmier, where we are just implementing a new type of railway shelters *noba cobo*. It was built along with development of noise barriers (NB), to which the stop should link and compliment the new series of NB with another system object. However, it may also function independently. Along the way, we first encountered it in Plevnik, where altogether, the noise barriers *noba kolo* are being built in a length of roughly five kilometers. The glazed rear wall enables a view to the surrounding countryside, and the atypical street furniture installed directly into the rear wall of the structure combines bent sheet segments with a wooden seat. As one of the few railway shelters, *noba cobo* can be given a lockable technical room serving station operators. As pointed out by one of our designers Bohumil Novotný, similar rooms are often used abroad, and they function as a technical unit, serving to integrate the electrical installation of part of the track and a computer, but may also feature a ticket machine. Examples include stops in Murcia, Zaragoza or also in Aviles, where we just finished installing the new shelter *qadra*.

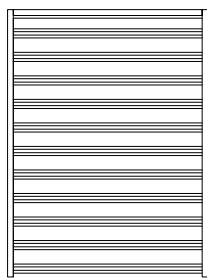


Smaller shelters and those designed for bus and railway stations form this category of system series. They are designed simply, expediently and their design corresponds to current trends in architecture. Small shelters are frequently placed in open municipal space or, on the contrary, in busy city centers, so we try to keep these constructions from dominating their given environment too much. The design fulfills our designing criteria, and for users it also makes maintenance as easy as possible.

After our tour in Plevník, we board the bus bound for Bílovice. We look back on our trip. Full of impressions during the trip, we remember movies whose themes were linked to the railroad. Once Upon a Time in the West, The Great Train Robbery, Murder on the Orient Express, Closely Watched Trains, The General. At the nearest gas station we stop to get a movie to watch on the bus. We only find the musical Lady on the Tracks from 1966.



							noba cobo	104
							listo	108
							traxo	110
							qadra	114
							via	116



104

system series

noba cobo

↓ The *noba cobo* line was created as a new shelter offered separately or together with noise barriers. The glazed rear wall affords awaiting travelers a clear view of the local countryside.

↙ The shelter *noba cobo* can be given a lockable technical room serving railway operators.



↘ The distinctive linear lighting is installed in the front part, and provides sufficient illumination inside the shelter. Along with its coloration, it complements the surround decor of the noise barriers.

↑ The sidewalls can be made from sandwich panel, whose material links to the noise barrier, or trapezoidal sheet, which is also applied on the roof.



105

noba cobo



↓ The drainage gutter is installed on the roof, water is led to the sewers under the surface.

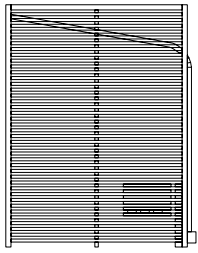


design cité+



↑ The atypical street furniture comes from the rear wall of the structure. The simple bench combines bent sheet parts with a wooden seat, suited for one or two passengers.





listo



↑ The new shelters *listo* are designed for places that are not easy to maintain, and are also used extensively. The main task for us was to create an area in which everybody could feel safe and happy. It is possible to see into the shelter and out of it through unbreakable sheet metal lamellas.

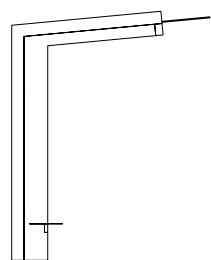
↑ The shelter *listo* is formed of curved sheet continuing into the rear wall. The sheet metal lamellas function like a grate, so no special gutter is needed. Rain water runs down along the rear wall to the gutter at the pavement level.

design cité+



↑ The atypical street furniture comes from the rear wall of the structure. The simple bench combines bent sheet parts with a wooden seat, suited for one or two passengers.





110

system series

traxo

↓ The *traxo* line is one of the most economic railway shelters. It applies static principles that do not come only from the qualities of the steel structure, but from the natural load capacity of tempered glass, which forms the shelter roof.



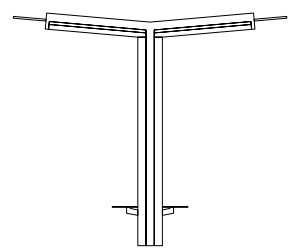
111



↑ This shelter is primarily designed for railway stops.

→ The light round seats from the bistrot line complement the furnishing of the shelter.





112

system series

↓ The simple, modular *traxo* shelter series is an example of a light and transparent structure enabling the creation of a configuration also without sidewalls. The artistic element is the contrasting color line bordering the extreme beams of the shelter.



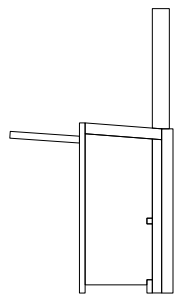
113



↑ The shelter *traxo* makes maximum use of the possibilities of materials such as a steel structure or glass, which remained partially projected outward. This makes the entire structure appear light.

design cité+





114

system series

qadra

↓ The shelter *qadra* is an example of a new concept of a stop combining an orientation panel with bus/tram/trolley route marker and technical facilities with electrical installation for the given line.

115



↑ A gutter coming out of the main column provides drainage. It is installed along the entire length of the roof. The rain spouts are hidden in the column of the steel structure.

↓ A line of LED lights runs through the entire length of the shelter.

↑ The artistic design also includes color graphics used on the glazed sidewalls. Two colored lines have visual and functional purpose. The row of thicker lines points out that it is a glazed space, and contrarily the thin lines illustrate the rests naturally created by glazing in the middle of the shelter.



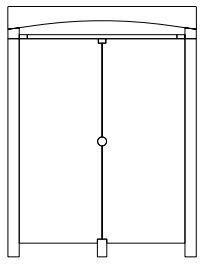
← The roof is constructed by a sandwich panel, giving the roof a calm, neat appearance. The entire structure is minimized to a supporting frame, accented by a dominant column intersecting the roof. This creates the impression of the roof levitating in the air.

← The glazed space inside the shelter lends an airy impression. Thanks to the glazing, travelers can see out. The space remains clear, and despite its distinctly shaped design, it does not compete with its surroundings.

→ In 2015, this shelter was implemented in the port city of Aviles in Spain.

design cité+





116

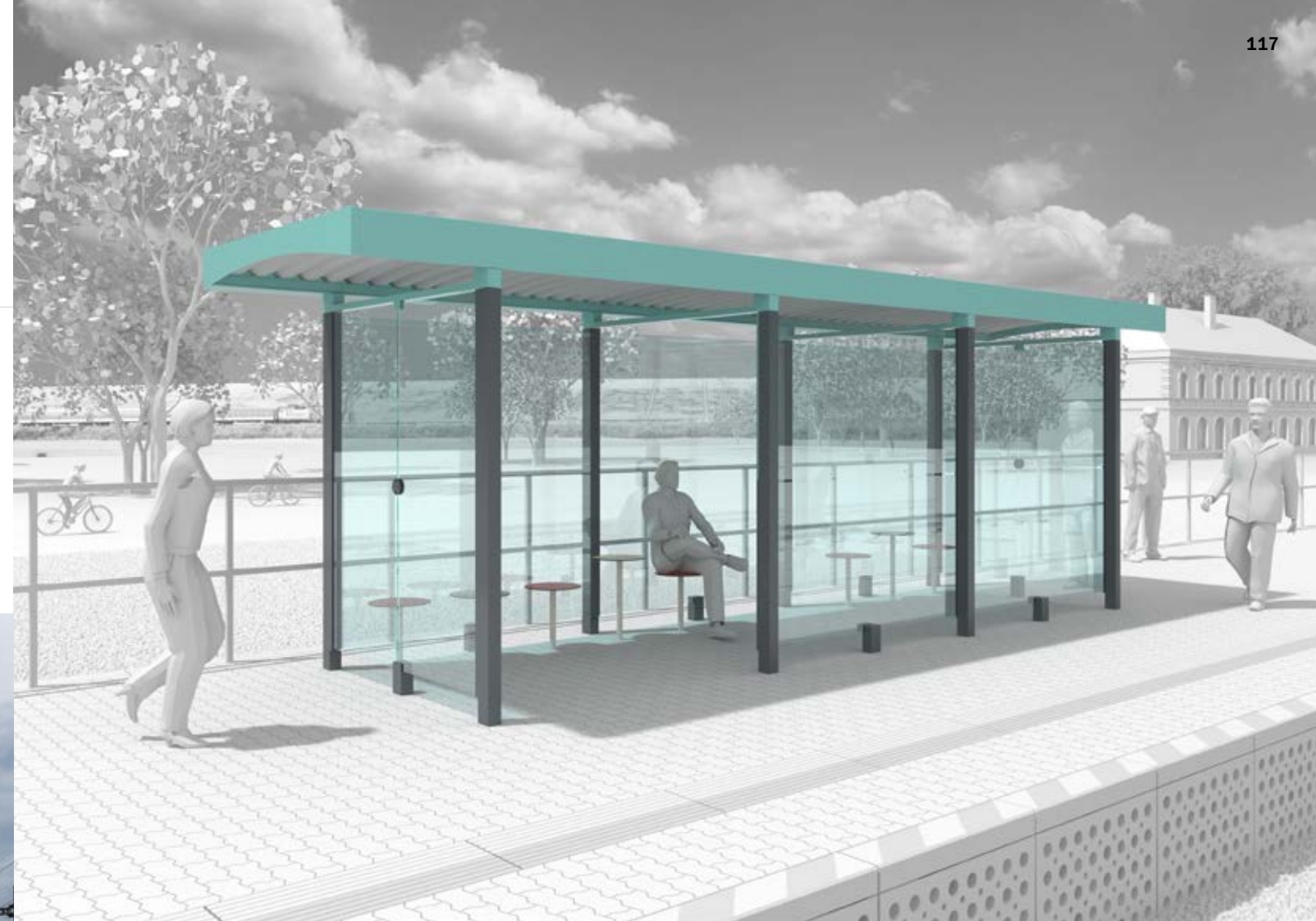
system series

via

↓ The curved roofing with trapezoidal sheet is one of the characteristic shapes that we employ. The *via* shelters are one of our tried-and-true series. For island platforms, it is possible to use a two-sided entrance.



↑ Two lengthwise gutters connected to the supporting columns of the structure drain rainwater.



117

↑ The rear and sidewall made from tempered glass afford passengers an uninterrupted view.

↑ The principle of double coloration is also applied here. The distinct outline of the structure *via* requires a subtle design of the inner columns.

→ The simple benches may be produced from machined steel or from compact HPL boards. The shelter's rear wall serves as a natural backrest.

design:
Radek Hegmon
David Karásek



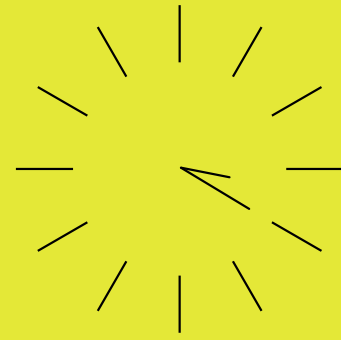
shelters

products

Day 2

3:20 p.m.

Púchov



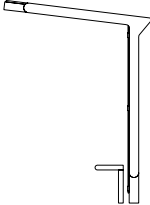
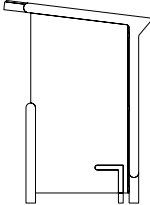
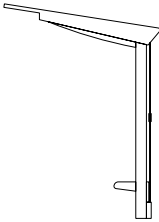
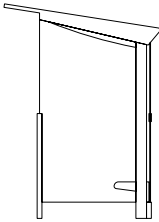
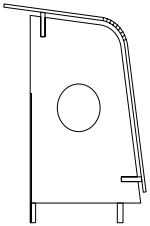
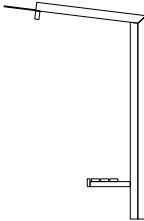
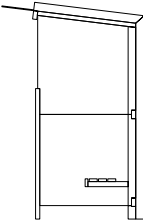
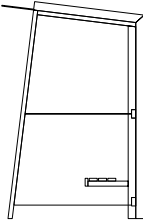
We have encountered small shelters several times during our excursion. These are a type of structure with which we started in 1992 along with municipal street furniture. Roman Křupala is one of our longest employed sales managers. He remembers the 1990s, when Radek Hegmon and David Karásek won the first tender for designing municipal street furniture in Zlín. He worked in the first office, and was around for the first designing of benches, stops, street furniture and their development. Over time, the company has grown and matured. Today, we have several branches here and abroad. You can encounter the results of our work in many places across Europe. Roman described how once, when he was on a family vacation to Hungary, he specifically noticed “how often we could see the results of work performed by mmcité”. He saw one of our installations about once every half hour while traveling by car. Large train station shelters, benches, litter bins, stops.



The basis of designing product series, i.e. smaller shelters designed primarily for smaller stops, is understanding their principle, their utility value, ergonomics and interaction between the user and the product. These principles are the main starting points when we begin to design. We are interested in the view of the architects, who place our products in cities, in accordance with or in contrast to the local built-up area. We study in great detail how users approach products, how they use them, how they use them, and what such products mean to them. Based on these findings, we determine the path towards a new design, which takes into account the requirements of the user or designer. Only in this way may a project emerge that is open towards users, attractive and becomes a source of pride for us.

Back in the bus for the next leg of the trip, we receive homemade strudel from our Slovak colleagues. The bus smells of vanilla sugar and cinnamon, and the driver starts playing the second half of our movie *Lady on the Tracks*.



				aureo	120
				regio	124
				cortex	128
				geomere	130
				geomere plus	132

aureo

↓ Shelters of the *aureo* line are one of our most variable series, enabling a specific solution for the given location. The supporting system in the rear wall enables selecting a variant without sidewalls, which is suited to narrow places. It is also possible to create a double-sided version for island platforms.



↑ The bench with seat made from massive wood is given an outdoor finish.

↑ So that passengers would feel as comfortable as possible while waiting and to protect them from unfavorable weather, it is possible to attach glass sidewalls to the shelter. The column holding the glazing is installed so as not to hinder the open view to the surroundings.

→ The distinctly shaped gutter fulfills its drainage function while acting as the support beam of the entire structure. It thus becomes a characteristic artistic element for the *aureo* series.





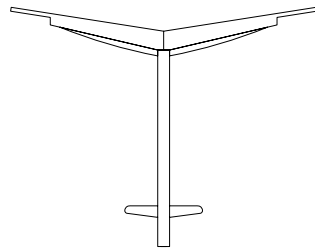
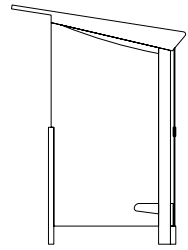
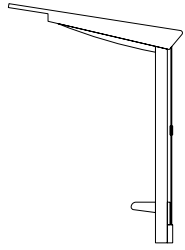
← Color sidewalls contrasting with the rest of the structure influence the simple shelter.



design:
Radek Hegmon
David Karásek

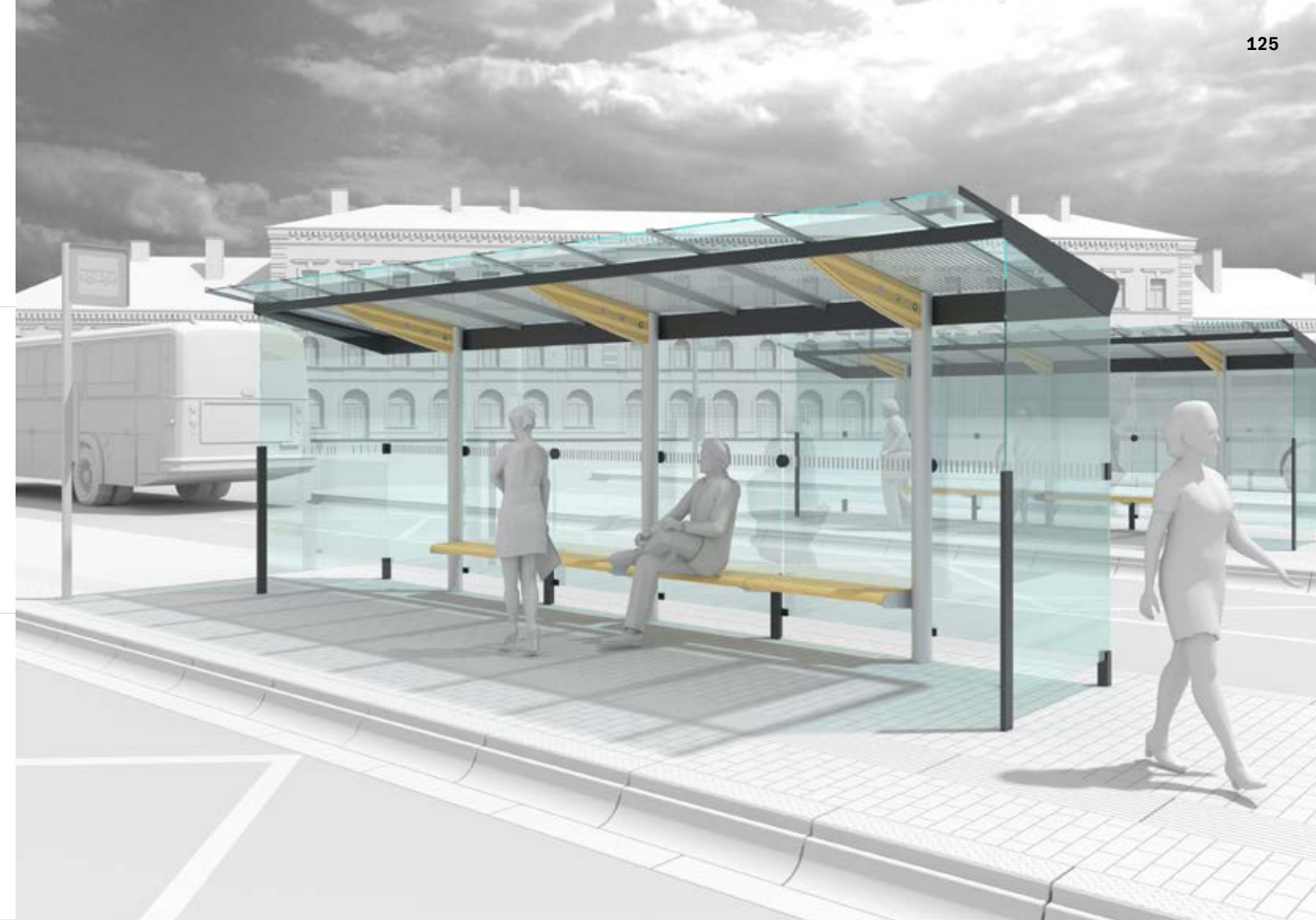


regio



→ The shelter *regio* combines wooden beams with steel elements, and creates an unusual combination predetermining the structure everywhere where a purely technical solution could disrupt the space.

→ The bench became the supporting part of the shelter; it affects the overall statics of the structure and brings out the glazing of the rear wall. The seats inside the shelter can also be made of wood, making the wait more pleasant for passengers.

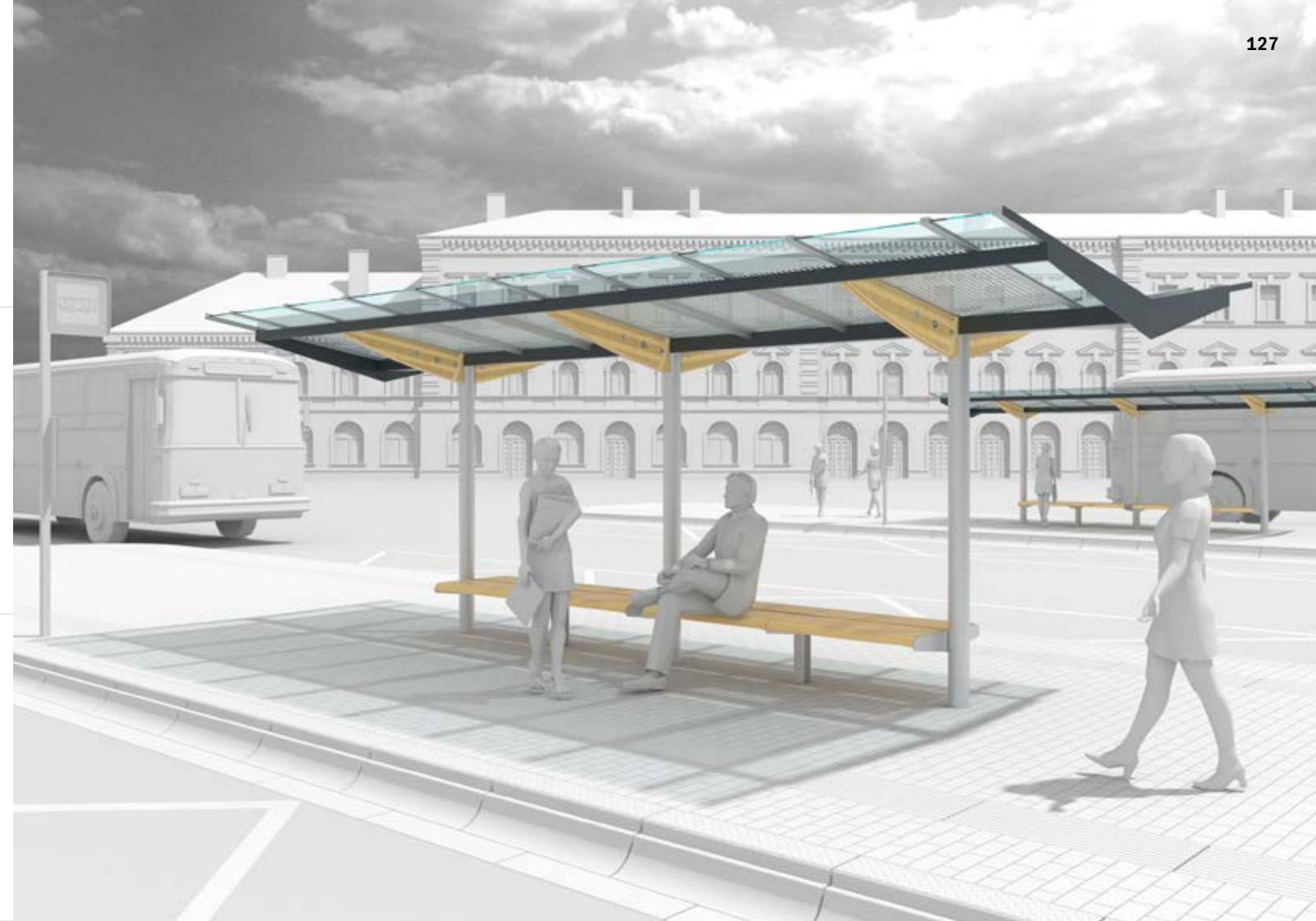


→ Frosted glass or glass printing, providing partial shading, may be used for roofing. The transparency contributes to passengers' feeling of security while enabling an open view to the surrounding countryside.



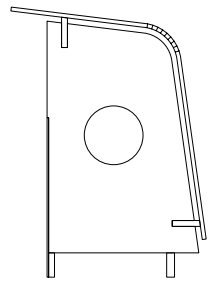


→ Another central element is the gutter draining rain water.



design:
Radek Hegmon
David Karásek





cortex

→ The shelter *cortex* attracts attention by its uncommon shape dominated by curved trapezoidal sheet forming a self-supporting shell. This is the main supporting element of the structure's design.

→ The sheet metal roof flows smoothly to the back of the shelter.

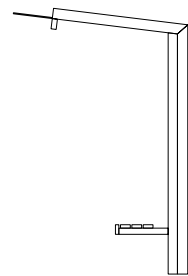
→ The sidewalls are connected by only two horizontal elements supporting the simple design of the structure. Walls can be made from bonded wooden board or glass, materials resisting climatic conditions.



← In the wooden variant, a round hole is cut into the sidewalls, harmonizing with the shape design of the shelter *cortex*.

design:
Radek Hegmon
David Karásek

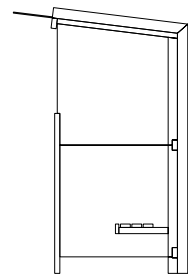




130

shelters

geomere



↓ The simple modular series of shelters *geomere* is an example of a light and transparent structure enabling the creation of a configuration also without sidewalls. The contrast color line bordering the extreme beams of the shelter becomes the artistic element.

→ Instead of sidewalls, one or two citylights can be installed.



↑ The glazing of the roof is installed between the side beams and supported by a profile installed underneath. This detail creates the visual character of the entire shelter. Sidewall glazing is frameless, supported by a protective profile. The edge entering the space is partially protected by the profile supporting the glass.

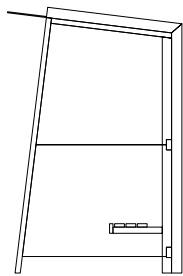
← The designed shelters include a graphic solution of glass printing, which links to the profiling and creates partial shading for passengers.

→ The bench is produced from wooden lamellas with protective finish for outdoor use, or light round seats from the *bistrot* series can be installed.

design cité+



131



geomere plus



← The roof glazing is installed between the side beams and supported by a profile installed underneath. This detail creates the visual character of the entire shelter. The side glazing is designed as fleeting, and the edge entering the space is partially protected by the profile supporting the glass.

↑ One or two citylights can be installed instead of sidewalls.

↓ The bench is produced from wooden lamellas with protective finish for outdoor use, or light round seats from the *bistrot* series can be installed.

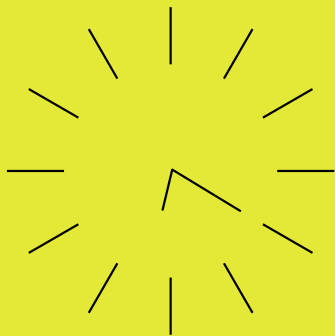
design cité+



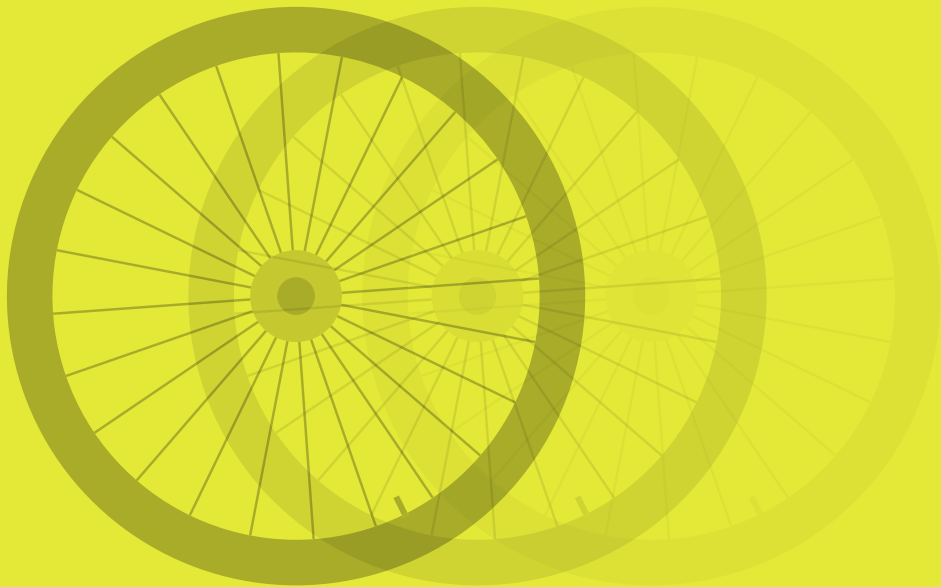
Day 2

6:20 p.m.

Uherské Hradiště

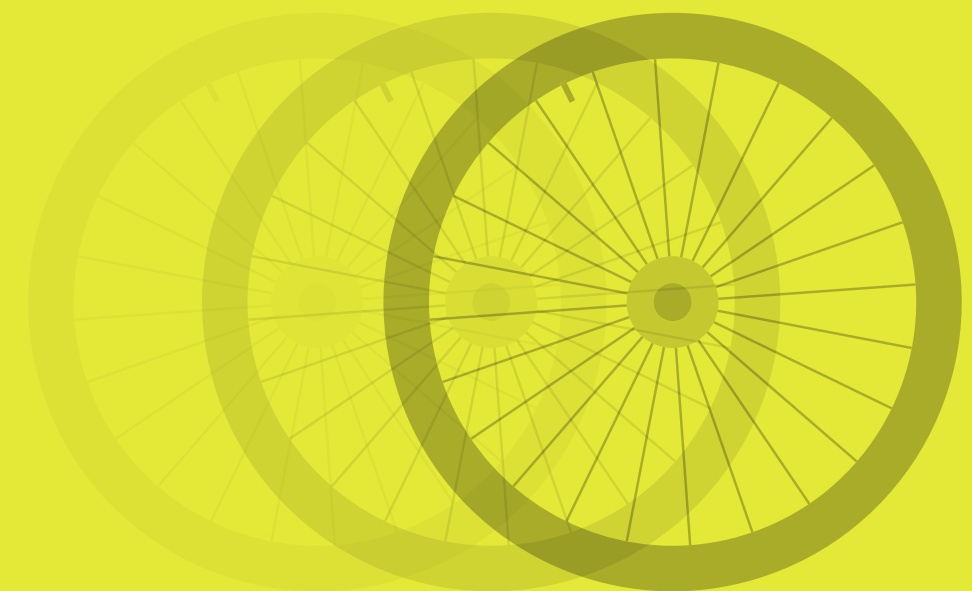


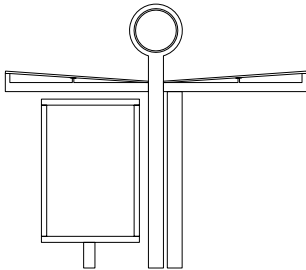
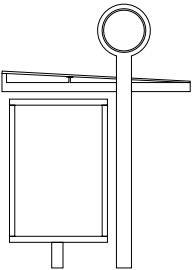
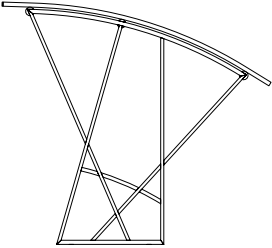
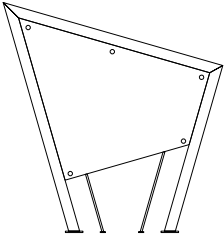
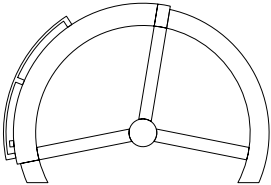
Cycling enthusiasm is everywhere today. Also several of our employees come to work in Bílovice by bicycle, every-day, winter or summer. They ride together, compete, configure, repair and buy bicycles, and they even design new bicycle boxes, which we saw on our last stop of our trip in Uherské Hradiště. Designer Jan Talík got his inspiration from the tipper system of trash containers. Pulling up the roof enables users easy access to the bicycle stands inside the shelter. This system also allows a large number of bikes to be placed in a small space, secured for as long as cyclists need.

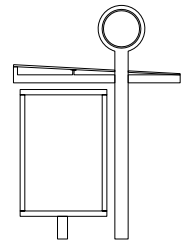




Bicycles and design have a lot in common. We could name quite a number of creative projects dealing with design, fashion, cycling and its popularization of (not only) the urban environment. But this is not just a marginal hobby of a few enthusiasts. One can see manifestations of the effort to promote cycle transport across European cities and beyond. Cycle transport is both fast and efficient “from home and back”, it decreases road traffic and improves the environment in cities. A glaring example is Copenhagen, thanks to which there exists a new term “Copenhagenization” for the process in which cities are shifting towards cycling-oriented transportation. People on bikes take part in improving the environment, in both economic and social terms. For these efforts to succeed, it is essential to create such conditions in the city that would make traveling by bicycle more advantageous than driving. Besides functional cycle routes, adequately installed bicycle stands and bicycle shelters also facilitate this trend.



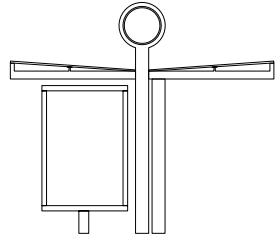
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gare

→ The *gare* series is one of the most variable systems for bikes that we've ever designed. Today we are implementing it in Budapest.

↓ The basic elements are the column with indicator sign and bicycle stands, which can also be given a glass roof and citylight.

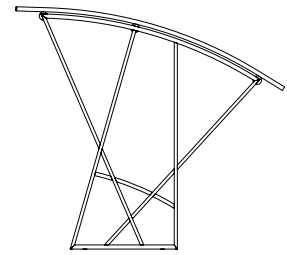


↑ The column is a double-sided roof support, and this variability enables the design of a radial ground plan specifically for a large number of bikes, or two shelters could be installed across from each other based on the traffic direction.

↓ The right-angle geometric shape of the shelter *gare* is suited for use in cities, for modern buildings and for quarters, where a visible roof slope could come off as disruptive.

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tyre

→ Spokes are one of the most decorative spots on a bicycle. There are several ways of designing spokes – for single, double, triple or even quadruple crossing. The shelter *tyre* is inspired by such detail of interlacing.

↓ The arched roof made from trapezoidal sheets copies part of the circumference of an imaginary giant wheel. The structure made of hot-dipped galvanized steel is given a covering baking varnish in any color.

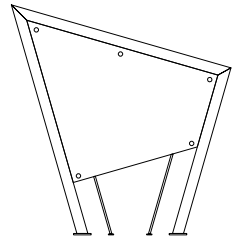
→ Steel trapezoidal sheet is used as the shelter roofing.



↑ Bike stand with option of locking within the shelter.

design:
Radek Hegmon
David Karásek





edge

↓ The bicycle shelter *edge* is characteristically a distinctly shaped structure, which is considerate of its surroundings thanks to the transparent design of all sidewalls.

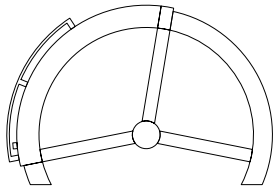
→ The shelter can be produced in a modification using Plexi-glas, sheet or with rubber to keep parked bicycles from being scratched. The covering lacquer can come in any color.



← The system *edge* can also be multiplied, thus enlarging the space for bicycles. One bicycle shelter is designed to hold 10 bicycles.

design:
Radek Hegmon
David Karásek





tode

→ Safe parking of bicycles is a hot topic in many cities. Besides bicycle stands, cycle boxes are appearing near bus and train stations, within which people can lock their bikes without worry.

↓ The tilting system tode inspired by trash container lids enables the user easy access into the box and out. A large handle or holders provide easy handling.

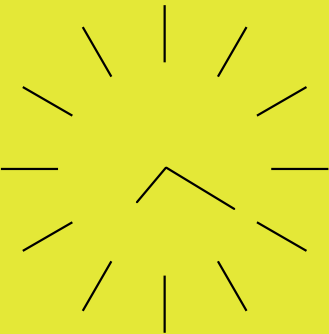


↑ Two bicycles can be placed in the box and locked by turning the key.

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Day 2

7:20 p.m. Bílovice

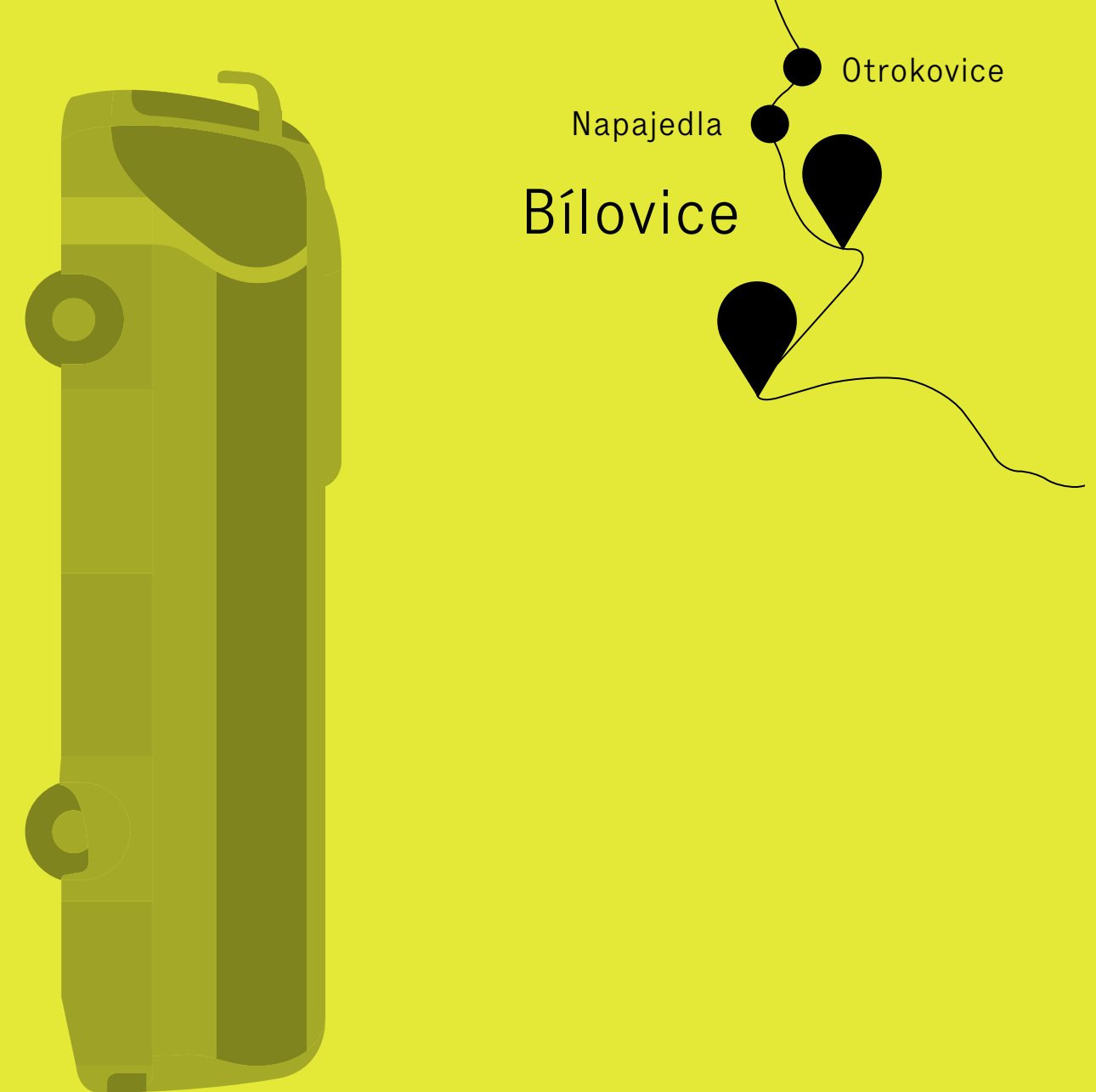


Transportation constructions are often those to which we pay the least amount of attention; we go through them or past them without even observing them much. In mmcité+, we have been focused on these constructions for over 20 years. Our work does not end at the moment when the construction is finished. We are keen on knowing how our implementations work, so we also enjoy coming back to completed works.





Over our two days of travel and thanks to insider commentary throughout, we noticed the technical details and the cleverness of the constructions, we became familiar with the story behind each construction and we observed their function in operation. The trip became a reward for us and an inspiration for discussions, sharing of experiences and impressions. We return back to mmcité headquarters in Bílovice in the early evening.





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