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**Chapultepec Uno, Mexico City**  
Taller G, Mexico City

**UP! Berlin**  
Jasper Architects,  
Gewers Pudewill, Berlin

**Apolonio Morales, Madrid**  
Luis de Pereda, Madrid

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**05**

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**Parken<sup>3</sup>**

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**Bauwelt** Special

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# 05

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## Parken<sup>3</sup>

A collaboration between  
WÖHR Autoparksysteme GmbH  
and Bauwelt

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**“Public space is a space for social communication, so it shouldn’t be occupied or underused by car storage. We have to establish the means for transforming mobility through public transport networks, new mobility concepts, and urban quality.”**

Luis de Pereda, Instituto Europeo de Innovación, Madrid

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# A New Urbanity

Critiques of the automobile as a devourer of urban space are on the rise – but so is the number of private vehicles in use in Germany. We like to drive, but are nonetheless annoyed by other drivers, in particular parked cars. But there is a way around this conflict: smart parking. The densification of a maximum number of vehicles in a restricted space is both necessary and attractive. Intelligent parking systems not only reduce space requirements, but also the time spent searching for parking spaces, not to mention traffic density and exhaust emissions. Since entries and exits take place in the access area of the parking system, circulation routes within are minimized as well. The displacement of parking places belowground, combined with vertical systems, frees up a considerable surface area aboveground, which can hence be rededicated to new functions.

WÖHR is responsible for smart parking solutions in various cities: the skyscraper Chapultepec Uno utilizes only a restricted surface area at the center of Mexico City. The Heilbronn Bicycle Tower reconciles parking needs with green mobility. The office building Apolonio Morales in Madrid integrates underground parking with geothermal exchange. And UP!, a converted GDR-era department store in Berlin, generates a new and lively center while contributing to the shaping of a public plaza and the surrounding neighborhood.

Parking is anything but a mundane matter. Everyday practical facilities such as parking spaces and bicycle storage stations should be designed systematically in ways that promote the desired mobility structures and engender attractive urban centers. The task of accommodating automobiles and bicycles while conserving space, thereby counteracting the urban strain caused by both stationary and moving traffic, offers a multitude of design possibilities that can move us closer to the goal of livable cities. Ultimately, it is a question of the formation of a new urbanity.

Boris Schade-Bünsow, Marie Bruun Yde

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# Glass Pencil

Text **Moritz Osswald**

Photos **Edgardo Contreras**

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## Chapultepec Uno, Mexico City Taller G, Mexico City

In Mexico City, daily life can be a challenge: air and light pollution, earthquakes, congestion, not to mention the sheer scale of this metropolis, home to 22 million people. Residential and parking space is scarce. The new Chapultepec Uno tower accommodates offices, apartments, and hotel rooms operated by the prestigious Ritz-Carlton brand. The luxury building marks the boundary between the megacity and an oasis of peace.



Visitors who ascend to the 60th story and stroll onto the heliport enjoy spectacular views across the Bosque de Chapultepec, the 'Central Park' of Mexico City. The inauguration of Chapultepec Uno is imminent – a quiet affair with little fanfare, given pandemic conditions. Awaiting visitors to the new skyscraper are exquisite Turkish marble and black granite walls, which emphasize an atmosphere of contemporary nonchalance. The most astonishing aspect, perhaps, is the sense of tranquility. The noise of the vibrant surroundings is excluded. The two-shell glazed facade with internally circulating air also ensures that no thermal energy is lost. Spacious terraces on the every level exclude the hustle and bustle of the metropolis from the serenity of this luxury object. The tower contains more than 4,000 square meters of surface area.

With a location on the emblematic Avenida Paseo de la Reforma, so steeped in history, the building rises to a height of 241 meters. The street runs through the city to a length of 15 kilometers, and skirts the Bosque de Chapultepec, the green lungs of Mexico City. The Castillo de Chapultepec, which presides over its landscaped surroundings, was once a military academy. It also functioned as an imperial or presidential residence. Today, the



The Samos Bar is located on the 38th floor.

palace houses the Museo Nacional de Historia (National Museum of History). On Sundays, when admission is free of charge, large crowds stream in.

Chapultepec Uno is a mammoth project in a mammoth city. The structure functions as a hyphen between nature and the city, between primeval origin and the future. What distinguishes it from neighboring skyscrapers? Simply, the view, replies the architect Salvador Nuñez. The spectacle of the forest and the palace is only one of many special features. Even more striking is its conception of maximization: Chapultepec offers a great deal of usable space on a small footprint. From the outside, the building resembles a slender, compact writing implement. Opening up within, however, it is a grandeur that – in a metropolis as cramped and confined as Mexico City – has a restful effect. Technologically, the tower is a melange, its constructive elements attributable to globalization: engineering from England, elevators from Finland, facade from China and Mexico. Found belowground is the WÖHR parking system. Users descend with their cars via a ramp. A keychain containing a built-in RFID chip is held up to a security column, whereupon a little monitor displays a cubicle number. The door to the cubicle slides open, and the automobile can be slowly maneuvered into the parking space. Four so-called light curtains perform an analysis to determine whether the car is positioned optimally, or whether minor corrections are necessary. This is vital if the fully automatic system is to function.

Upon leaving the cubicle, users receive reminders: has the handbrake been applied? Has the motor been turned off? The lights? Only upon receiving confirmation does the fully automatic parking system initiate the process. The rotary plate maneuvers, transporting the car from the first and into one of altogether 12 subterranean levels, where it is parked. In just 15 seconds, the process is complete, and the automobile is locked in a fully inaccessible "vault." There is space for 80 vehicles on each level. Perpetual movement prevails. WÖHR has chosen to

## Chapultepec offers a great deal of usable space on a small footprint.

From level 39 to 47, the Ritz-Carlton Hotel features spacious suites with terraces and a panoramic view to the south-east of Mexico City.



rely on a “chaotic system.” The term refers to an approach that avoids assigning users fixed parking places for their automobiles; instead, the selected parking space changes constantly. This generates constant momentum, along with the optimal utilization of the system.

With regard to both hardware and software, the intelligent, fully automated parking system is a unique development of WÖHR. The centerpiece of this technology consists of thousands of sensors. They convey the vehicles securely on a type of conveyor belt that transports them to their assigned parking boxes. To retrieve your car from the subterranean parking garage, you hold up the keychain with integrated chip to a display monitor in the waiting area. In 3 minutes at most, your car stands before you and – thanks to the integrated rotating disk – facing the exit.

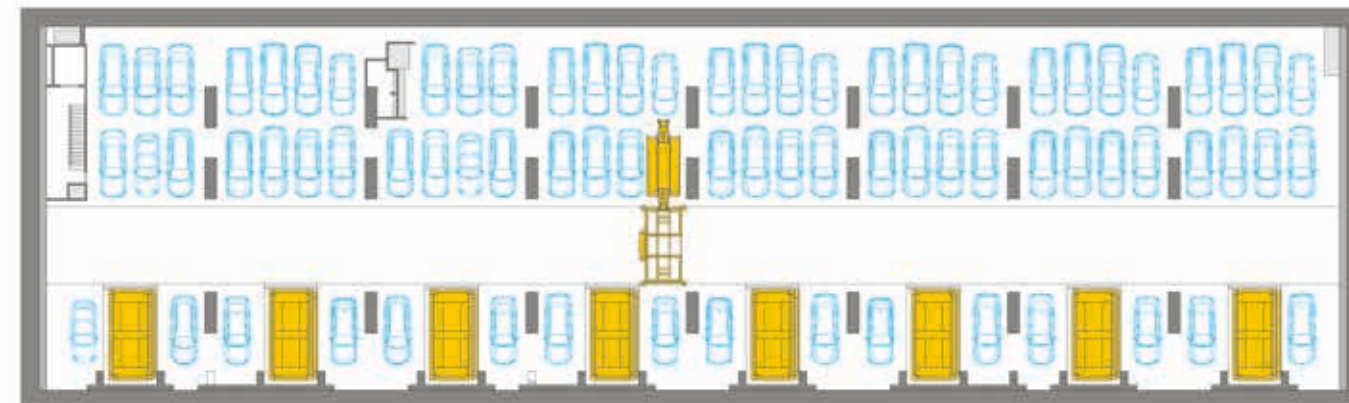
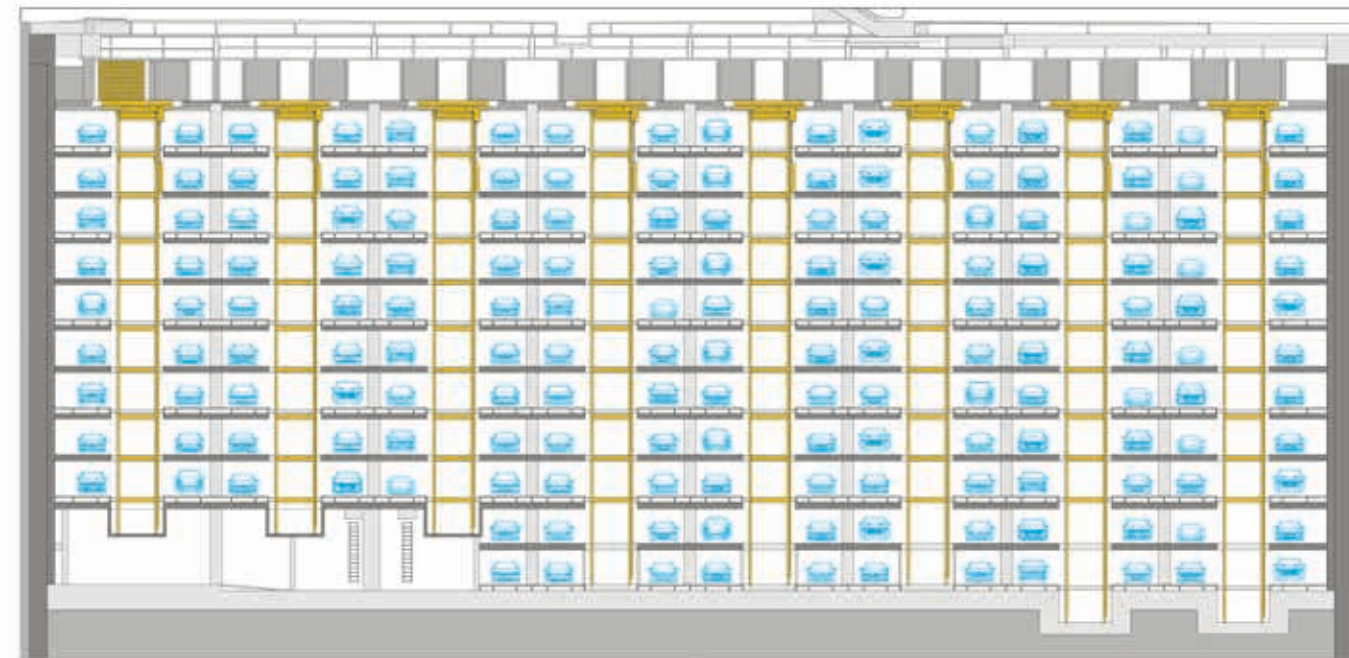


Lateral sensors are used in the transfer areas.  
Photo: Luis Sánchez Núñez de Cáceres

#### Product Information

##### WÖHR Multiparker 750

424 parking spaces in a high rack, system without pallets, 12 underground parking levels, operated via RFID chip, length 5.25 m, width 2.20 m, height 2.00 m, platform load 2,500 kg, total parking area 895 sq. m, area per parking space 2.2 sq. m.



# Lightness and Transparency



## Taller G, Mexico City

Interview **Moritz Osswald**  
Photos **Edgardo Contreras**

**T**he planning, conception, and construction of the Chapultepec Uno skyscraper in Mexico City occupied a period of ten years. The architect Salvador Nuñez, who is the managing director of Taller G, sheds light on the creation of this architectural icon, on its earthquake safety measures, and on the relationship between this solitaire and the city.

### **Moritz Osswald: How was Chapultepec Uno conceived?**

**Salvador Nuñez:** In addition to simply creating a high-rise building, it was in particular a question of a building that would serve as the boundary between the forests of Chapultepec and the Paseo de la Reforma, a boundary between nature and urban space. A building with an absolutely contemporary character, and an avant-garde vision that emphasizes traits such as lightness and transparency. It was intended as an icon of Mexico City.

### **With regard to architecture, Mexico differs from Germany first and foremost by virtue of the presence of powerful earthquakes. Chapultepec Uno was designed to be earthquake resistant. How was this achieved?**

Currently, the tendency when it comes to building in earthquake regions is to allow the structures to move with the seismic activity, thereby avoiding a collision between forces. With this

project, this became impossible, since the building is sited so close to the Torre Mayor, and is oriented toward the east. Given this proximity, our building had to be extremely rigid. Our supporting structure was given a system of counter air vents designed to dissipate the forces produced by an earthquake. These take the form of diagonal metal structures under tension that tie together the columns of the building every three stories, dissipating the forces into the ground floor in the event the building is shaken by seismic forces.

### **With regard to the history of architecture in Mexico, the architect Laure Nashed has emphasized that in this country, architects have tended to serve primarily the upper classes. This changed only with the devastating earthquake of 2017.**

The history of architecture is a history of power: palaces, cathedrals, monuments. Today, we architects must also contribute to urban planning and to achieving balance – we need to design everything, from simple dwellings to mixed-use buildings. Every difficulty becomes a special challenge. In some cases, we work with conventional systems. In others, the task demands a search for daring answers, that we take advantage of the most advanced technology, for example the robotized parking system of Chapultepec Uno.

### **What does the building give back to the city?**

First, the building accommodates a large number of workplaces for people from all social classes. Secondly, the citizenry identifies very strongly with this building: it reinforces a sense of belonging among city dwellers. Strolling along the Paseo de la Reforma and observing the passersby, you will notice people from all social classes standing there taking pictures of the building. They linger there and just admire it. Viewed in this way, it is an integral part of the city.

# The Necessity for Erecting High-Rises on Small Building Lots

## APS/WÖHR, Mexico City

Interview **Moritz Osswald**

**T**he engineers **Frank Stockenberg** and **Javier Lachica** have equipped the skyscraper known as **Chapultepec Uno** with a fully automated, subterranean parking system. In this interview, they explain how the limited parking space available in Mexico City is optimized, and why robotized systems are particularly well-suited to achieving this.

**Moritz Osswald:** In a metropolis as densely settled as Mexico City, how can scarce parking space be exploited intelligently?

**Frank Stockenberg:** In Mexico City, there isn't much available space left. In order to achieve added value in relation to the basic cost of the plot, it therefore becomes necessary to erect high-rises on small building lots. The costs here are horrendous.

When erecting a building having such a height, the intelligent approach is to construct parking facilities based on a robotized parking system.

**What does such a parking system have to offer?**

**Javier Lachica:** Three variables allow such a system to provide a practical solution: the size of the building lot, the permissible density, and the geometry. With lots where building regulations permit greater development density, it also becomes necessary to provide a certain number of parking spaces. This number is dependent upon the number of units that are for sale, or the square meters of surface area that is to be leased – regardless of whether the surface area is used for office space, hotels, or commercial utilizations. Fully automatized systems entail a far more stringent geometry than conventional parking systems, but by virtue of their design efficiency, they are capable of optimizing space utilization.

**So for cities, subterranean parking systems are the future?**

**Frank Stockenberg:** In many countries around the world, they are already the present. Here in Mexico City, for example, a number of such systems are already in operation.

**Javier Lachica:** Much depends upon future developments related to the automobile and to human behavior. When the concept of carsharing becomes more prevalent, for example, the need for parking spaces in cities will become less urgent.

**The parking system for Chapultepec Uno is the largest ever constructed by WÖHR.**

**Javier Lachica:** In the past, WÖHR has developed similar, independent systems. But as a single, unified system, this is the largest ever built worldwide. Whether by WÖHR in Germany or APS here in Mexico. To see it is to realize that its beauty transcends all of the obstacles and challenges involved.



The transfer area is a communal parking space. The generous dimensions and the clear visibility resulting from the use of glass ensure a pleasant atmosphere when dropping off or picking up a vehicle.  
Photo: Luis Sánchez Núñez de Cáceres



# Bicycle Storage Tower

Text **Marie Bruun Yde**  
Photo **Esspestudios**



**Fully automated bicycle parking provides convenience and proximity while conserving a considerable amount of space. The Heilbronn Bicycle Tower makes bicycle parking – and hence cycling – stress-free. In Germany, bicycle parking facilities of this type are however still rare.**

For high-traffic areas, the absence of any concept for bicycle parking often results in bicycle cemeteries. Conversely, simple, flexible parking options promote bicycle use. An additional strategy for encouraging bicycle use is investment in a combination of cycling and train travel.

Already with the Bundesgartenschau (Federal Garden Show, BUGA) of 2019, Heilbronn showcased its urbanistic orientation, showing how a multifunctional concept could allow a variety of uses to be integrated into the city on the Neckar River. The tiny metropolis has also claimed a place for itself on the map as a bicycle city. With a current share of bicycle traffic of 8%, Heilbronn approximates the national average, but perceives great potential for improvement. A new pedestrian and cycling bridge above the Central Station, the work of arch22, together with the Heilbronn Bicycle Tower, are strategies for fostering green mobility.

The WÖHR Bicycle Tower is a conspicuous presence at the eastern end of the train station forecourt. The small, transparent structure proclaims its function outwardly: a parking facility for bicycles that are stacked vertically. Altogether 122 parking spaces on eight levels offer the two-wheelers space between a securely locked door. There are three operational options: chip card, online, or credit card, with rates for both regular and spontaneous users. The bicycle is sent upward, the door closes, and then it's off to catch your train. Besides providing protection from the elements and theft, the device makes minimal demands on space. The tower occupies only circa 50 sq. m of surface area, leaving the surroundings unobstructed. The glazed facade harmonizes with the adjacent

glass-roofed bus stop. Its transparency places the structure's engineering achievement on full display, along with the aesthetic appeal of the colorful bicycles, and makes the tower urbanistically well-integrated and approachable.

But do a mere 122 bicycle parking spaces at the central station suffice for a city of 126,000? Hopefully not. Ideally, many more people will soon be arriving at the station on two wheels. But the Bicycle Tower has merit as a beacon for bicycling infrastructure, and signals that cyclists are being taken seriously in Heilbronn.

## The Bicycle Tower has merit as a beacon for bicycling infrastructure, and signals that cyclists are being taken seriously in Heilbronn.

The growing use of bicycles increases the need for innovative parking concepts that integrate the bicycle into the urban landscape.

# Multiplicity Instead of Parking Spaces

Text **Marco Eisenack**  
Illustration **Heller Designstudio + Partner**

## Quartier Dock, Munich Heller Designstudio, Stuttgart

**The new Quartier Dock by Heller Designstudio makes the carpark the impulse generator for the quarter. Programmed with a variety of uses, the modular building system engenders qualities typical of urban life – even in new development areas at the edge of town.**

If we want to create more space for environmentally friendly mobility in our progressively densified cities, and more green space for climate resilient districts, then parking spaces are a prime candidate for elimination. With the concept of the Quartier Dock, developed by Marcel Heller on commission from WÖHR, parking places vanish from public space and become the ‘core

users’ of buildings that also offer space for further functions, which the quarter requires, some of them all too often absent from newly developing areas: lively ground-floor zones, spaces for young people and creative enterprises, open spaces on roofs, ample room for sporting activities, evening events, and much more.

At IAA Mobility, which took place in Munich in September of 2021, the Quartier Dock was presented as a new, sustainable mobility concept that could serve as the basis for enhancing residential districts. “Here, the narrative of parking space is inverted,” explains Marcel Heller. “It is no longer a question of isolating automobiles somewhere, making them as invisible as possible. The aim now is to convert the need for mobility into the motor of the quarter. This results in the potential for additional uses.” On the basis of a fully automated parking system in combination with additional usage components, Heller has conceived a modular building that is used additively from the ground floor all the way to the roof terrace.

### Mobility needs are in a state of flux

According to the German Environment Agency, automobile traffic increased more than 20% between 1995 and 2019. During the same period, carbon dioxide emissions from private vehicles rose 5.1%. In order to reach the Paris climate goals, CO<sub>2</sub> emissions produced by traffic alone must be reduced by more than one-third in the coming ten years. Only if mobility is reconceived will we be able to adhere to the Accords.

Heller is convinced that mobility will become ever more diverse: the bicycle, the electric bike, the cargo bike, the electric motorbike, the electric scooter, and the electric auto. In the future, depending upon the occasion, the weather, and the time of day, we will choose from a variety of transport resources. “In cities, people are already aware of the value of sharing vehicles. Which is why we need a mobility hub,” explains Heller. The Quartier Dock

The concept of the Quartier Dock aims to better integrate smart parking into the city and combine it with other functions.



makes mobility offerings so attractive that people will no longer find it necessary to acquire private automobiles. At the same time, they will be more mobile than ever before: these days, an app on a cell phone offers better solutions than a car key in the hand.

According to observers, it is precisely the degree of user-friendliness that harbors such potential for the Quartier Dock. With “Parksafe,” WÖHR’s integrated, automatic parking system, bicycles and cars are stacked in a space-saving way, and return quickly to street level via elevator on demand. Users wait in safe, bright public spaces. No staircases, no dark, subterranean garages. And the automatic parking system uses circa 60% less parking surface when compared with a conventional garage.

### Saving space and using it differently

The guiding idea behind the concept of the WÖHR Quartier Dock is to integrate public life through the use of modular construction methods: a multiplicity of utilizations are conceivable, ranging from gastronomy, retail, fitness studios, and cinemas, to daycare and youth centers, and all the way to boulder walls in outdoor areas and rooftop urban gardening. By virtue of its position at the entrance to a residential area, the hub functions like a harbor from which users can depart or dock. At the same time, the building provides protection from street noise, and bundles together functions that might be less than welcome in residential zones.

The Quartier Dock is conceptualized as an optimized user interface for a future-oriented district. The fact that the Quartier Dock is conceived as a modular construction system consisting of recyclable metal in accordance with cradle-to-cradle principles has ensured it a particularly good reception among representatives from municipal politics, administrators, and civil society. And once even this projected future in turn becomes the past, it will still be possible to build upon it.



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# A Department Store Becomes an Office Crystal

Text **Christoph Tempel**  
Photos **HG Esch**

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**UP! Berlin**  
**Jasper Architects,**  
**Gewers Pudewill, Berlin**

**B**ehind Berlin's Ostbahnhof, the GDR-era Centrum Warenhaus has been meticulously transformed into a highly modern office building.

In the Friedrichshain district of Berlin, not far from the Mediaspree, an up-to-date office building is ready for use, and has now been occupied by the first leaseholders, the online fashion retailer Zalando and the payment service provider SumUp. The news seems less than earthshattering, considering the number of office buildings that have been erected in recent years between Warschauer Brücke and Ostbahnhof, in particular by Zalando. But this fresh face, located behind Ostbahnhof, is not a new structure; instead, a dilapidated existing building has been painstakingly infused with new life.

The point of departure for this successful revitalization project was the Centrum Warenhaus, regarded as highly modern when inaugurated in 1979, which sat in the shadow of Berlin's third-largest train station in an urban environment dominated by prefab buildings. Despite its colonnade with display windows, the square, six-story solitaire, each side measuring 80 m in length, was self-contained in a way typical of department stores. By 2016, reunification, continual changes in ownership, and the protracted decline of downtown department store culture had brought it to an end.

The provisional finale of this revitalization endeavor is a highly modern, transparent office building with four deep incisions in the building's outer shell and 78 terraces with varied dimensions. In the evenings, the now nine-story building – which has been renamed UP! Berlin – is a positively radiant presence within this heterogeneous urban district. Enthroned above is a gigantic roof terrace – accessible, unfortunately, only to employees.

#### Integrated in the urban space

It was Martin Jasper's estimable achievement to have refashioned this building – despite its sheer size – in a way that integrates it quite effectively into the surrounding urban space. The design model by the architect, a native of Buenos Aires, already displays the intended approach: rather than creating an interior

courtyard, Jasper sliced open the cube on all four sides to differing depths, allowing light to enter into the strikingly tall regular stories (each measuring 5.4 meters) of the deep building. He gave these incisions – he calls them “voids” or “canyons” – staggered terraces which serve to enliven the facade. Two new stories, stacked on top of the existing structure, compensate for the surface area that was sacrificed as a result.

Ultimately, in response to a desire expressed by SIGNA, the client, Jasper implemented the design in collaboration with the runner-up architectural office of Gewers Pudewill, based in Berlin, which also took charge of general planning.

It sounds simple enough: excise certain sections, stack new stories on top, give the whole a transparent facade. Easier said than done! Challenging in particular was the need to ensure stability during demolition work, a task fulfilled by the structural engineers of Bollinger and Grohmann with the help, among other things, of adhesive reinforcements. A new, centrally configured fifth circulation core yielded improved access to the various stories. Diagonal exposed concrete supports along the voids ensured the stability of the final result, tracing out the prevailing forces for all to see and enlivening the appearance of the extremely wide support grid, which measures 12 by 12 meters. The grid endows the building with an industrial look, emphasized as well by the roughness of the skeleton and the historical traces inscribed onto it.

#### Lively facade

The color scheme, developed by Zalando, distributes 15 different tones per story on the floors and kitchenettes. Smaller installations in and around the four old circulation cores preserve a sense of spaciousness while being integrated harmoniously into the larger whole. Found here are the conference rooms. Altogether 500 ceiling panels per story ensure good acoustics while concealing the necessary building services.

Toward the outside, the highly artificial element facade encloses the building with room-height windows. Compared to conventional new office buildings, the dimensions of the windowpanes are larger, a factor that had to be taken into consideration during planning from the very beginning. The regular alternation between transparent and opaque elements with narrow ventilation flaps generates a lively facade image, enlivened further by the visible support framework and views of people working inside.

On sunny days, the facade reflects all of the colors of the spectrum; confronted with the grayness of November days and the drabness of the surroundings, consisting of parking wastelands and indifferently configured green spaces, temporary market stalls, and deserted takeout food joints, color is however conspicuous in its absence. In this part of Berlin, just the same, the glazed figure of UP! Berlin provides a kind of optical haven. Once all of the shops in the ground floor have been leased, it may indeed do justice to its intended role as a local shopping option. The tall shops, which face all sides, await gastronomy and retailers.

**The glazed figure of UP! Berlin provides a kind of optical haven. Once all of the shops in the ground floor have been leased, it may indeed do justice to its intended role as a local shopping option.**

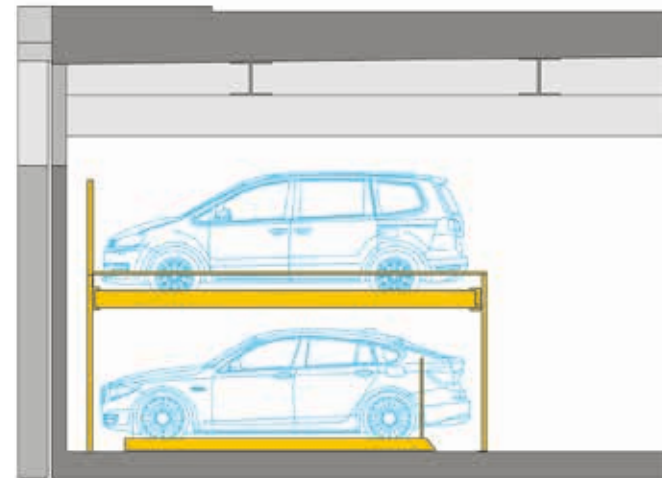
UP! stands out from the many faceless new buildings in the Friedrichshain district of Berlin.



### Quality of stay instead of wasteland

In a central space on the ground floor, altogether 300 parking places with locking frames signal a relaxed conclusion to a bicycle trip to work. These are supplemented by circa 100 parking places for autos in a subterranean garage. Two elevators provide space-saving transport into the basement, where WÖHR's semiautomatic Combilift 551 parking system ensures expeditious and convenient parking on two levels. Given the complexity of the spatial conditions confronting the architects, quality and reliability were the decisive criteria that led to a decision in favor of a product by WÖHR. Moreover, they had already had positive experiences when deploying WÖHR systems in other building projects. In the view of the architects, that only 10% of the parking places are equipped for charging electric cars is already inadequate: the times are indeed changing. In the subterranean garage, as elsewhere in the building, old and new architectural strata collide. "Motorists must remain in their vehicles" and "Turn off your engine" are still legible on the large concrete girders, dating from the 1970s, beneath which some of the new parking places stand.

Once the blight of parking places in the immediate vicinity has (hopefully) been eliminated and urban life arrives together with a new school building and the new district town hall, a new residential district featuring amenity qualities will emerge once again from the heterogeneous urban texture found behind Ostbahnhof. The glazed UP! Berlin building assumes the role of trailblazer, and sets the standard as well when it comes to sustainability. All by itself, the decision to upgrade the loadbearing frame rather than demolishing it conserved the equivalent of between 8,000 and 10,000 tons of CO<sub>2</sub>. At the same time, the sheer size of the stories and their heights makes utilization other than office space practicable. In the event that working life continues to evolve toward the home office, UP! Berlin is optimally equipped to adapt.



#### Product Information

##### 5 x WÖHR Combilift 551

Operated via RFID chip, maximum vehicle length 500 cm, maximum vehicle heights 175 and 200 cm, platform load 2,000 kg, platform width 240 and 250 cm, 69 parking spaces.



The Combilift allows vehicles to be parked on two levels in even the smallest of spaces.

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# Automatic Parking Is a Powerful Tool for Transforming Urban Space

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**Luis de Pereda, IEI, Madrid**

Interview **Marie Bruun Yde**  
Photos **Amparo Garrido**



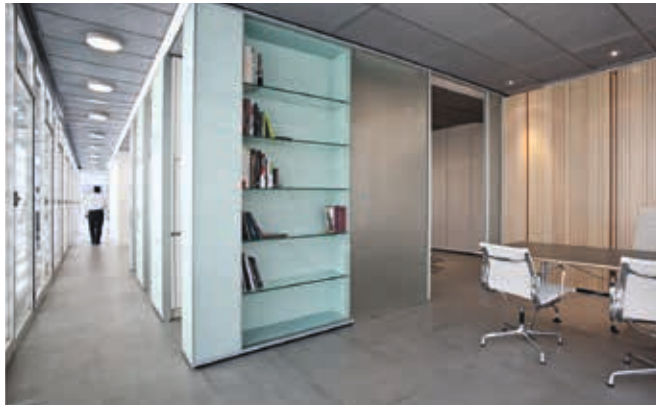
In January, the converted office building located at Apolonio Morales 29 in Madrid received the LEED Platinum Certificate for green buildings. One of the building's key efficiency features is the integration of underground parking with geothermal exchange. The architect Luis de Pereda of Instituto Europeo de Innovación speaks about the potential of smart parking to minimize the urban footprint of cars while being combined productively with renewable energy and multi-modality.

**You have refurbished Apolonio Morales 29 as a new headquarters for the construction company F. Molina. What kind of building was it before?**

The original building dates from the 1980s. It had a closed façade, no interaction with the outside, poor ventilation, no natural light, and no control of solar energy. And a great deal of space was occupied by technology in an attempt to compensate for the energy problems, which resulted in high energy consumption. The building did not have proper parking, only a backyard below street level that was filled with cars in great disorder.

**How did you change that?**

We uncovered the building's original structure and managed



Air, light and cross views were achieved by relocating stairs and service spaces and uncovering space condemned by obsolete installations.



to preserve 95% of it, meaning 80% of the building's total mass. The façade was completely transformed and opened up to the sun and air. To solve the parking situation, we created an underground mechanical parking system for 14 cars. At the same time, we integrated a geothermal system with the parking facilities. Energy is conducted into the building by means of two geothermal heat pumps. The result is higher quality bioclimatic space and energy consumption that is far below average for office buildings.

**Why did you choose an automatic parking system?**

We wanted to keep the surface free and unobstructed. Mechanical parking has a small footprint and is a powerful tool for transforming urban space. SAS, our local company, integrated parking and energy, providing know-how and expertise in integrating thermal energy and electric charging with vehicle storage. Our partner WÖHR supplied sophisticated mechanical technology. We realized there can be added value with automatic parking. Geothermal exchange is just one component; we also installed a drainage water energy exchange water tank in it.

**Which additional future perspectives for automatic parking and urban mobility do you see?**

Public space is a space for social communication, so it shouldn't be occupied or underused by car storage. Nevertheless, we need to guarantee individual mobility rights. We have to establish the means for transforming mobility through public trans-



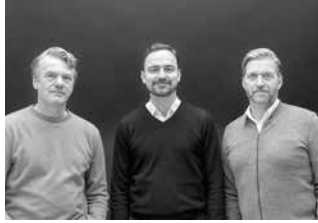
The automatic parking system is invisibly recessed into the ground. The horizontal, subterranean platforms only become visible when raised to provide access to the vehicles. The cover plate can be individually adapted to the local surroundings.

port networks, new mobility concepts, and urban quality. Today, mechanical parking is being extended to become multi-modal parking that also accommodates bicycles, electric motorbikes, and shared vehicles, as well as hubs for electric charging. It can contribute to the transition from individual parking to shared mobility and connection. At the same time, the mobility mentality needs to change. The private ownership of vehicles as emblems of personal wealth will be replaced by car sharing. Technology is one part of this development.

#### Product Information

2 x WÖHR Parklift 463 D 2,0, 1 x WÖHR Parklift 462 E 2,0

Maximum vehicle length 500 cm, maximum vehicle heights 175 and 200 cm, 12 universal charging stations for electric vehicles, platform load 2,000 kg, 14 parking spaces.



Based in Berlin, **Gewers Pudewill** was established by Georg Gewers and Henry Pudewill in 2008. The office takes on diverse design, architectural, and urban planning assignments ranging from residential, office, and cultural buildings to laboratories and industrial facilities, and all the way to master plans for institutions of higher learning and industrial sites. Decisive for each design is the individualized role played by the buildings at its specific location.



**Taller G** is a leading architectural office that was built on the foundation of a 30-year-long collaboration with kmd architects, the founding principals of its Latin American practice. In 2012, this leadership established a new enterprise with a focus on Latin America. With more than 20 years of experience designing workplaces for international firms, Taller G has implemented projects in a number of Latin American nations, among them Mexico, El Salvador, Costa Rica, Panama, Colombia, Brazil, and Argentina.



The **Heller Designstudio**, a creative office based in Stuttgart and Shanghai, develops architecture worldwide for brands. As conceptual advisors and architects, they design and position architecture, interiors, and digital information within a total context, always seeking to launch the working process from a zero point. In order to provide an optimal basis for decision-making, each project is accompanied from the start by high-quality 3D visualizations. Projects include showrooms, exhibition design, trade fairs, and hotels, and extend all the way to workplace environments.



The **Instituto Europeo de Innovación** works in the field of architecture, urban planning, engineering, industrial design, energy efficiency, sustainability and mobility. IEI acts as a project integrator within a network of partner expert companies to provide customized contextual consultancy services in complex projects with the aim of social, environmental and economic efficiency. The multidisciplinary institute has carried out projects worldwide.



The architecture studio **Jasper Architects** was established by Martin Jasper in 2008, and has branches in Berlin, Buenos Aires, and Vienna. The office is strongly characterized by its cross-cultural and flexible approach.

The portfolio extends from interior architecture to building construction, and all the way to urban planning. Jasper Architects designs and plans buildings with strong identities, always with strong local ties and with a global perspective.

**Portrait photos:** Architects

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