

Buildings and transportation consume the majority of the world's energy, which means that thoughtful innovative contributions to both sectors are of significant relevance. Public mass transport via trams particularly submerged underground as subway systems increasingly in times of congestive collapsing private (vehicular) transportation have ever since their introduction in the 19<sup>th</sup> century been proven to be the most efficient and effective way to keep urban fabrics moving and vital. However so superior the subways had to increasingly compete with the automobile as the general public's most favorite means of transportation. Early the public as the initial principal mass transit investigator (vs the private of the car industry) saw that the crowds were not to be attracted by the rational alone and consequently used the irrational, the emotional as a means to lure passengers, with design being the main vehicle. According to the MoMa ( <http://www.moma.org> ) : The Parisian architect and designer Hector Guimard was commissioned to make the 1899 *Entrance Gate to Paris Subway (Métropolitain) Station* not only to mark an entry to the new Paris Métro, but also to help make this new mode of transportation appealing to Parisians....the Art Nouveau aesthetic was unfamiliar to the masses , yet they soon grew to appreciate this new style previously known only by the wealthy"

Simultaneously Guimard Otto Wagner's 1899 Vienna Karlsplatz subway pavilion and about a century later Harry Weese's 1976 Washington DC subway tunnel ceilings used the same strategy in a less decorative and more structural logic manner, especially Weese utilizing primarily the structure for the spatial spectacle.

The city of Bochum had their subway exits/entrances equipped with escalators which because being open to the elements ended up causing immense maintenance cost so that at the beginning of the new millennium a commissioned analysis report concluded that the onetime investment in rain sheltering canopies would reasonably amortize it selves over a relatively short time. In the mentioned tradition of Paris, Vienna and Washington the City of Bochum decided to have architects (vs engineers or public furniture designers) come up with concepts and launched an invited national competition.

Despang Architekten was one of them, invited based upon their related typological reference of the EXPO 2000 tram stations.

The jury's decision was to award the proposal of the local architects Banz & Riecks for the more ordinary conditions and the Despang Architekten's for the extraordinary as the legendary " Schauspielhaus Bochum " / theater which is one of the largest and most notable theatres in Germany and was (re)built in 1953 by the architect Gerhard Graubner, who in his academic side was a professor of architecture at the Technical University of Hannover which both Günther and Martin Despang as the design responsible founding principles of Despang Architekten have graduated from. Despang Architekten known for their strategies of "complex simplicity" and "multi dutiness" conceptualized their proposal accordingly as an integral synergy of pragmatism and poetry / science and art / tectonics and emotion.

The main client given design determining factor was of very pragmatic nature , being the code requirement for the structure having to be able to withstand the impact of a crashing into the structure truck which made the architects and their competition partnering structural engineer and steel contractor IPD (Integrative Project Delivery) wise analyze and investigate that instead of the loads being withstood by few larger the roof load bearing columns this could be equally performed by numerous smaller members who are in solidary relation with each other.

In fact this principle provides a plus of physical and psychological safety as not only does the main structure indirectly protect the traveler by keeping the roof from collapsing but as well in the more likely case of cars getting off the road its parts flying over the existing concrete balustrade.

The pragmatic, structurally / tectonically benefit comes with one of perceptual, sensual quality: The traveler's eye coming out of the dark underground is getting smoothly adjusted to the bright outside by the rhythmical spreading of 50 % of opacity of the 60 mm wide lattice and equally sized spaced voids in between.

The main intent of the structure to shelter / protect the escalators and stairs from rain and snow is provided by glass on top of the horizontal and inside of the vertical lattice and benefitting from the tight rhythm of the steel the glass can be of most minimal dimensions of twice 6 mm laminated glass n the roof.

The general rule of thumb of the life cycle cost of a structure being eight times the initial erection cost is even more true for public transport structures as they are as the highest exposed to vandalism.

Besides increased safety for the user relative to a conventional structure with few columns the system amortizes itself quickly as the lattice not only physically protects the glass but even more effectively has preventive nature as it keeps aggressors away from achieving the spectacular effect of visually large panes of glass.

In particular in case of the roof glazing since potentially broken glass will securely rest on the lattice given the effect of being barely visible through perspective perception the replacement can happen in no rush presenting another financial advantage.

The same applies to the aspect of the cost intensive cleaning of glass, where in this case the tectonics of the louvers will not allow the view of large dirty surfaces of glass, which will assure for fewer cleaning intervals as another cost benefit of the system.

The material choice is steel, which given the tradition of the area of Bochum being the steel belt of Germany is considered a local resource, in fact the "Bergbaumuseum / museum of mining" with its iconic formerly operational steel tower being close by.

That local tradition took its glocal toll on the project as the since 2005 internationally operating architects (Dresden, Munich, Hannover, Honolulu (University of Hawaii)) had to wait until 2014 for the project to be executed. The reason was that Bochum highly building upon the steel industry attracted related manufacturing as the major economical driving force of the main "Opel" plant , which in the signs of increasing globalism was bought by "General Motors" which in following got Bochum into similar economical struggle as GM and with it "their" city of Detroit. In 2013 the funding was reallocated and the project built almost one and a half decades after the won competition.

Rigorous IPD contract documents which defined every bolt of the structure technically and aesthetically where crafted by the architects and motivated the client to execute the project many years after its envisioning by construction managing it himself allocating its very best internal architect who delivered the project in exact compliance with the design.

Following the architects philosophy of "complex simplicity" the project will be perceived by the public and users based upon its appearance more as (archi)texture than architecture:

In its balance between "solid transparency" and "transparent solidity" from the perspective of a from the distance approaching urban dweller the twin pair with one each on the opposite sides of the street will be perceived as celebrationally framing the streetscape of the "street foyer" of the theater and its filigree gesture resonates with the midcentury modern intricacy of the "Schauspielhaus".

The structure functions atmospherically as texture and the white final finishing powder coating over the galvanized steel serves as a reflector and diffuser for the daylight and light trough at the bottom of the structure which day- and nighttime's provides an evenly pleasantly indirectly lid spatial feel.

With the facing the entrance side flanks of the both wall and roof lattice being coated in blue (as being both the color of the city and the public transport) wayfinding is enhanced and the subtle glow created by the light bouncing off the blue and white surfaces under the curtain of rain linearly running of the roof glass edge defines the notion of an urban version of a waterfall as the celebration of the in the temperate and tropical residence places of the architects common phenomenon of precipitation.



Opel: Göttingen Physicochemical Institute, leaving for Berlin (1905) and 1950's



Opel Siderium 2008



Opel Flextreame 2008



Bochum [city of Opel]



*de nieuwe*  
**OPEL REKORD**

2-DEURS \* 4-DEURS \* 4-DEURS DELUXE

- Nieuwe moderne stijl ; rechthoekige koplampen !
- Drie volkomen nieuwe motoren : 1,5 — 1,7 en 1,9 liter !
- Bovenliggende nokkenas en vijfmaal gelagerde krukas !
- 12 Volts elektrische installatie !
- Grotere spoorbreedte — 7 cm méér achter !
- Schijfremmen vóór op alle modellen !



daughter of GM



[legacy of] the Opel appeal



Opel GT 1970's / Corvette's little German brother



Gerhard Graubner`s glorious adjacent 1950`s Performing Arts Center Bochum

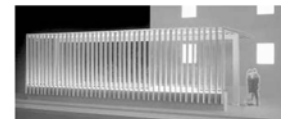
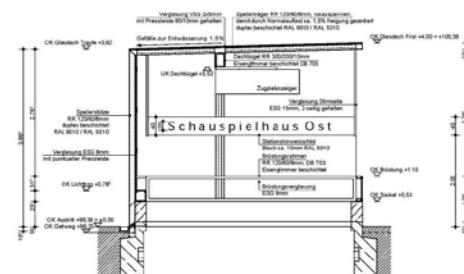
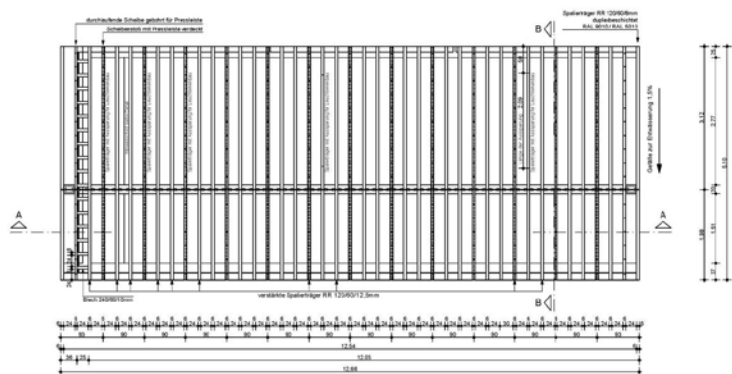
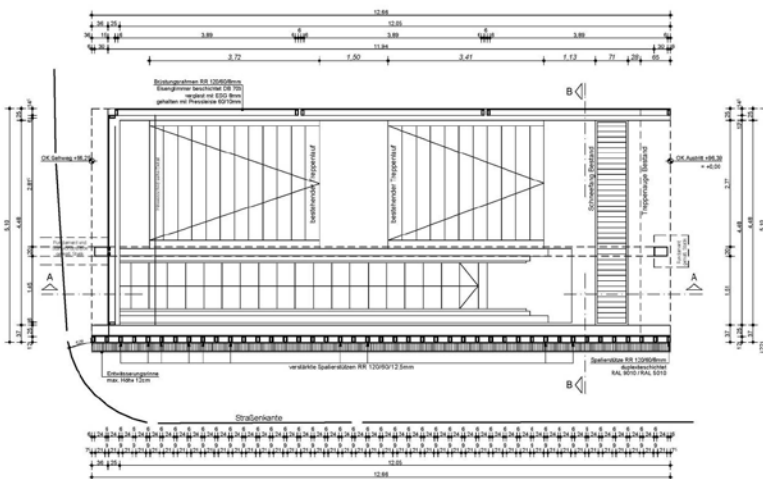
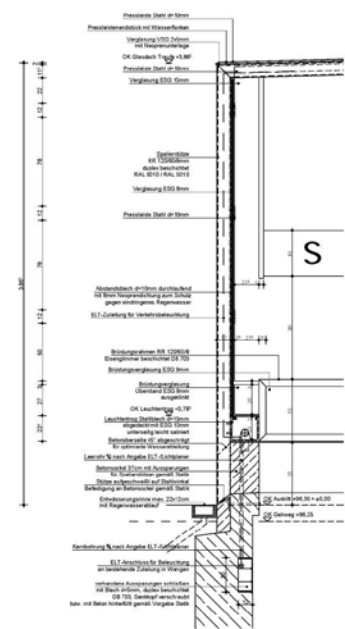
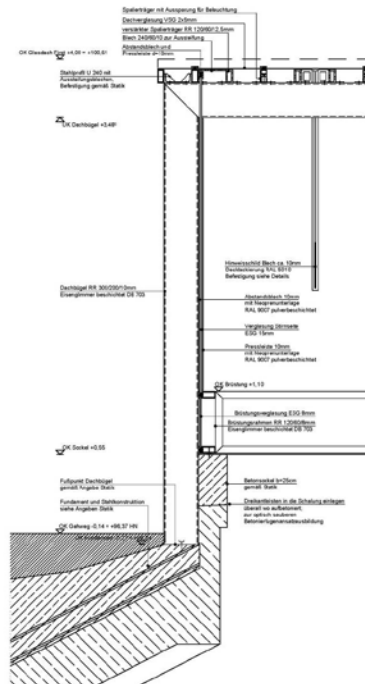


materiality tradition: City of steel / adjacent German Mining Museum Bochum



post Opel model of public transportation / model concept study : transitioning of optical adjustment from dark underground to bright above the ground





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solid transparency





ribboned base (Semper's earthwork)



prefab steel backbone ( Semper's framework)



prefab steel lattice ( Semper's framework)



concrete and steel clockwork precision dancing lessons



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art-wallpaper.org



[audio fi:l]  
31.10.2013

Pflichtung  
Hattungen, Bo-Dahnen  
150 m  
Bo-Hof, Bo-Gerthe  
120 m  
andere Strassenverkehrs





the parti (built)