

# *Waldschlößchen*

a new bridge in Dresden



# Dresden

## INTRODUCTION:

Why this intervention, the UNESCO Heritage site in Dresden, the present project of a bridge at the Waldschlößchen and 5 basic guidelines to insure proper development of infrastructure, preservation of the site and the integrity of the Elbe river valley in Dresden.

## PROJECT HIGHLIGHTS

Why a covered bridge over the Elbe at Dresden?  
Features of this new SMART bridge and why is this new proposal better than the actual project.

## GUIDELINES

- 1- to ease commuting woes
- 2- to reduce traffic in the historic section of town
- 3- to provide better access to the Elbe valley parkland
- 4- to become in itself one of Dresden's many attractions
- 5- to blend with the existing structures and general environment of the Elbe valley

## CONCLUSION

The Baroque question, can Dresden afford anything less?  
The cost of tradition and the tyranny of excellence.





# Introduction

During a recent trip to Dresden, I was told that a new bridge was to be built over the Elbe near the centre of town to help the city cope with the ever rising tide of motorists. I was also made aware of the impact the decision to build this bridge could have on the status of the UNESCO world heritage site funding for the Dresden area.

This following text is the result of some research I made on the Dresden bridge project and its possible and most likely result on the area of the Elbe valley and is to accompany the images I have created to illustrate my own vision of a new bridge crossing the Elbe in the vicinity of the old town of Dresden, Germany. I have read many documents pertinent to the visual impact such a structure would have on the Elbe valley. What follows is my interpretation of the context in which a new bridge can be built.

In my view, in order to be successful, the Waldschlößchen bridge project has to fulfill these five major objectives:

- 1- to ease commuting woes
- 2- to reduce traffic in the historic section of town
- 3- to provide better access to the Elbe valley parkland
- 4- to become in itself one of Dresden's many attractions
- 5- to blend with the existing structures and general environment of the Elbe valley

None of these points can be omitted, and all of them have crucial importance. The random order in which they are presented here can be seen as an order of practicality that reflect efficiency and good planning... and not an order of importance.

I am convinced that the evolution of the city of Dresden will demand, sooner rather than later, that a new link be established between the 2 shores of the Elbe. I believe that the present efforts to give Dresden a chance to shine and to show the restoration of a proud heritage must be accompanied by an equally great effort in the areas of transportation to allow visitors and citizens alike to function well in the space provided.

The point of this text is to demonstrate that the evolution of the city of Dresden asks us to be flexible and to open our minds to new ideas... A bridge at Waldschlößchen has been in the book for nearly a hundred years and is a logic, and I believe, a very desirable project to give Dresden two very new attributes; one is a new structure permitting traffic flow to be rerouted away from the historic centre of town, second, to gives Dresden a new attraction on the Elbe, away from downtown and in this most enchanting of valley. In time, it will become a focal point. People will gather and become aware of the great beauty surrounding them.

The Baroque look is a generally accepted concept when it comes to Dresden, as a descriptive adjective or simply to evoke a glorious past. A bridge over the Elbe conceived in this fashion is not an anachronism more than the rebuilding of the Frauenkirche is. One is a much needed part of the modern infrastructure, the other is a huge tribute to the survival of a city, of a nation.

In this respect, I believe that the construction of a bridge at Waldschlößchen in the Elbe Valley in Dresden must be done with as much care to the site itself, as it must be understood that such a venture is also directed at telling the story, the incredible journey, that every soul in Dresden is part of.

The only other alternative I would support and welcome would be of the construction of a tunnel that would be dogged under both the river Elbe and it's flood plain. This would be a very expansive proposition but it would be the ultimate answer to this great dilemma. On the other hand, I am totally against the construction of the modern bridge described in the Aachen University study, anywhere in the UNESCO world heritage section of Dresden. Such a structure simply doesn't belong within the confine of such a district and would relieve only partially future traffic woes.

All these points and more will be treated further in this text.

# Project Highlights

What I propose is the construction of a double-decker six-lane below, tramway line above, covered bridge in the style of a Baroque Castle much like the structures that exists at Großsedlitz. During my most recent visit to Dresden, I visited these awesome Gardens and I am using the pictures I took there to illustrate what this ultra-modern “SMART” covered bridge will look like. The lower level will also include indoor and outdoor galleries or walkways and cycle-paths. The upper level will include an indoor gallery as well where reproduction of artworks related to the landscape in and around Dresden will be exposed throughout the year.

My proposal is to blend the need of a future bridge with the notion of history. My goal is to show that a modern bridge can be built to blend and harmonize with its surroundings. Large, wide covered bridges are not my invention. They allowed our civilization across the rivers of time to our epoch. In both Europe and America, covered bridges got us where we are now. To build such a structure in Dresden up to modern standards and with modern material would indeed be a first. Why a covered bridge over the Elbe at Dresden?

That a large volume of traffic crosses the Elbe at Waldschlößchen could be seen as an intrusion into a rich and beautifully preserved environment. If the bridge is built as the present project seems to point at, yes indeed, we have a few problems! The biggest objections against the construction of any new bridges in the Elbe valley seems to be a combination environmental and developmental issues. Noise, pollution plus disturbing the flood plain of the river Elbe and the overall look of the valley are all factors that must be addressed for this project to be successful. Lets examine the features of this new SMART bridge and see why this new proposal is far better than the actual project.

First, in order to keep the noise to a minimum, keeping it in an enclosed area seems logical. We can devise a new system of noise reduction devices capable of suppressing almost all noises associated to traffic flow without having to resort to unsightly noise barriers. New advances in pavement composition have proven successful in reducing noise by 30 to 60 % depending on climate and traffic volume expected. Pavement made of smaller particles tend to be much quieter but also wears out

much faster. A balance between traffic flow, pavement texture and other noise reduction features has to be achieved.

Sound-proofing material will also be applied to the wall and vault inside the structure on both levels in order to keep motor traffic and tramway noise to a whisper. Proper insulation between the two decks of the structure is imperative to keep track noise down from the tramway level as well.

This is why a covered bridge in the style presented here seems to present many solutions. It eliminates the needs for sound barriers by having a thin woven vinyl mesh thick enough to reduce noise but thin enough to let the air flow through the structure. This mesh will also reduce the effect of rain and snow and the roof will keep the roadway dry almost permanently. From a distance, it will look like windows... fitting attribute to any baroque castle I must admit! This fine vinyl mesh will also dissimulate the vehicles travelling across the Elbe behind a semi-opaque curtain, a fitting state of affair as we want this to look less like a bridge and more like a Baroque building. This unique feature of the new Waldschlößchen bridge will be placed on both sides along the length of the bridge. These light-weight mesh panels would be hung in two layers and would filter both the light and noise into the structure. Their texture would provide constant airflow and discreetly shield motorists from the setting or rising sun. But beside being light and noise reducing devices, these curtains will also act as weather repellents to keep the roadway clear of too much rain ice and snow making this bridge safer to all users. Although probably more complex to install than simple glass windows, the exhaust gasses from motor vehicles will not be trapped in the bridge and cause discomforts to the users. These curtains will also be much lighter than windows on such a large building, and will also be easier to clean, maintain and repair.

The top part of the flat roof above the tramway line will be covered with solar panels to generate proper lighting inside and to feed a complete network of signals to keep the users aware of both road conditions and traffic flow. This new integrated system will also be connected to the other traffic network system of the region. It is very important that proper lighting be set to match outside conditions

so that driving through the Waldschlößchen bridge remains safe during the day under cloud cover of sunshine, or at night. The levels of light in the bridge must reflect their outside environment in order to prevent users from not being able to see the road ahead of them due to a too great difference in ambient lighting conditions. Along with the side curtain and this sophisticated lighting system, the Waldschlößchen bridge will be able to produce an safe environment under almost every circumstances. Under high wind, the curtain should be able to protect the bridge users as well by deflecting part of the wind gusts to bearable strength.

I propose a three-span bridge, covered... entirely! The present project has nine uncovered spans, which will necessitate digging 10 sets of foundations, versus six. That alone represent a huge saving of material, man-hour and energy. 11 sets of foundations for a four-lane highway bridge of 638m seems very wasteful. The Carola brücke built in 1965-66 offers a better ratio and carries both trams and 4 lanes of motor traffic. The superstructure will have to be more considerable but the impact on the flood-plain is reduced by half. And since care of the flood plain seemed to me a major argument against the building of a bridge at Waldschlößchen, I really have a hard time understanding why the present project got considered at all!

It is my firm belief that this project could be made to fruition with only 3 spans, modern bridge building technique and all... this is NOT a bridge to Mars! The amounts of money, energy, and time saved by having to dig and erect only 4 sets of foundations versus 10 will allow for a better, larger and more versatile superstructure and will go a long way in saving the Elbe floodplain simply by not touching it more that we have to. This project cannot be one of half measures. Also having six lanes instead of four will reduce the time of crossing, henceforth reducing pollution and noise from idling engines stuck in traffic. Six lanes also insure better flow in case of accidents. The bridge proposed now is a fine structure, for sure, but it does not address the needs of a very sensitive urban zone, it is too narrow, and damages the valley floor by necessitating too much foundation work. The Elbe valley is a crucial and vital part of the public “health” of the greater-Dresden area. We need to insure that both the structure

and it’s environment are compatible and well matched. To built just another traffic-snarling bridge to create more noise and pollution cannot be seen as an option and should therefore not be considered,

Will the present proposal of a covered bridge in a baroque style cost the Dresden public way more than the present project?... Will the advantages to the infrastructure level alone warrant so much more than just a basic means to cross a river? Let examine this point... which in my opinion needs not to be neglected. A Baroque six-lane highway bridge is in itself a rather striking proposition. With sidewalks, promenade, tramway line and art gallery all in one, the new Waldschlößchenbedecktebrücke may well become itself a sought after attraction of the modern Saxon capital.

With a background of rich residences, and within range of one of the most amazing city in Germany, the site of the Waldschlößchen cannot be wasted or impoverished by a structure that doesn’t respect the vast historical background of the area. A painting in the book of the exhibit “Der Blick Auf Dresden” I saw myself in 2005 really struck me as the ultimate goal for the present venture. “Fernblick

auf Dresden Deutschland” by Karl Friedrich Schinkel shows this view of the city through the effect of a simulated optical device and no one looking at it for the first time will notice Dresden, right there in the middle. Suddenly, one can see the Frauenkirche and all of Dresden appears... such must be the new bridge at Waldschlößchen if it is to be successful. Not painted in gold, maybe in green and blues to blend with the surroundings. We will discuss this again later in this text.

To answer the question of cost, only one solution exists. Bridging the Elbe at Waldschlößchen is as serious as it is sensitive and the cost will be to ensure that the best possible choices are made. Noise reduction, pollution levels, access to parkland and integrations to the existing ensemble that constitute the Elbe valley must all be taken in account. The technology now exist to make this a “SMART” bridge in a smart city so that the impact on the immediate environment is positive, logic and respectful of a legacy which speaks volume of its resourcefulness. The savings made by having to do less expansive ground work will surely go a long way to provide material needed for the super-structure. The Baroque external skin, curtains, lighting, signals, access to the park from the tram line cannot be

considered extras for they provide the necessary elements that make the construction of a bridge at Waldschlößchen possible while the area’s integrity remain intact. The cost of this bridge is the cost of doing it well, for the generation to come, and as a memorial to the generations who made Dresden the vibrant place it is today.



# 1 - To Ease Commuting Woes

A city the size of Dresden will always be faced with choices. Some are easier than others to make. Dresden has been looking to bridge the Elbe at Waldschlößchen for many decades. The type of bridge to built here seems to be a most serious matter for the harmonization of the city with it's green space is at play here. The need and the logistic of the project are serious. To adapt an age old solution to the modern need of a city is nothing new, specially in Germany.

The addition of a new bridge in Dresden means the city has grown. It also means that the area has gone through an amazing period of change since German reunification. But as nothing is perfect, with the new era came new problems, out went the Trabis and in came a completely new "parc-automobile" the likes of which had never been seen on this side on the iron-curtain.

More cars, more tourism and more money, Dresden has experience a rebirth that brought the world on it's doorstep a little over 15 years after the fall of the Berlin wall. For all those who work or live here, there has been a drastic augmentation of the number of vehicles transiting to, from or through Dresden. This means an increased flow of traffic the like of which had also never been seen under soviet influences.

Commuting can be costly. Time spend on the road to and from work is not very productive. To reduce this, is to be willing to examine new solutions capable of preventing all sorts of ills that can plague a community. Car wrecks due to impatience and lack of concentration impede on commuting time and tempers soon flare. Overflowing trams can be dangerous as well and the demands on the operational staff can also produce all sorts of problems and accidents. All these nerve-wrecking situations impacts a population, reduce efficiency in the work place, raises tension and end-up costing us dearly in lost wages, wasted fuels, skyrocketing insurance premiums and frayed nerves.

The construction of this new bridge at Waldschlößchen must be done in such a fashion as to help reduce commuting time in and out of the downtown core by removing traffic that has no business there. Traffic crossing town

north south or south to north will then be allowed to move freely outside of the congested touristic area, and save large amount of time, fuel and wit not having to breath-in the fumes from the countless trucks and busses idling to no end in snarled "Bouchons" as the french call basic gridlock!

Several features of my proposed bridge are made to facilitate the Elbe crossing. First, having six lane and an upper deck for tramways means an open roadway capable of handling a great number of vehicle on an daily basis. Faster crossing time means better fuel efficiency, less time on the road commuting and a nicer setting to do the commuting in. Another feature to make the commute more interesting would be a visual presentation of the history of the city of Dresden that would be laid out in the walls of the tram line on the second level... there is enough material to be reproduced and exposed to fill a bridge long enough to reach Canada... This exhibit could be changed and made to attract artist from all over the world and here we are touching point #4

The construction of this new bridge at Waldschlößchen does not mean we are dumping pollution and noise problems into the pristine environment of the Elbe valley. The proximity of the old town and of its snarled traffic is far more lethal a situation than a well paced, well built and well thought of structure up-river. To ease traffic flow in the core and balance the through-traffic away from sensitive areas is the goal here. A tunnel would be the perfect solution... but it's cost makes it rather impossible to build. Since a bridge seems the only solution, its qualities must give it the capacity to move and carry the traffic with a maximum of efficiency in a minimum of time, with the least disturbance possible on the environment within the park land and within the heritage that constitute the Elbe valley itself.

Some studies have shown a decrease in vehicular traffic in some areas of the greater Dresden. Some areas have shown a rise in that same activity. Pros and con will argue this until judgement day... but in the meantime, Dresden is growing and will soon reach its pre-war population levels. This means many more cars and trucks. This also means more citizens looking for access to the parkland



and more people, like me, visiting Dresden. Time spent in a traffic jam is not more pleasant in Paris, Toronto, Shanghai or Dresden. Your city has one of the best transportation system I have seen for a city that size. The new Waldschlößchen bridge can only add to the efficiency of the infrastructure by giving it a new ultra-fast artery where the flow of modern life can reach destination safely and rapidly. It will ad a crucial link between the area to the north near the airport with the areas to

the south-east towards Pirna and the new A-17 to Prague.

The opening of that very road will raise drastically the flow of traffic coming from the south into Saxony the likes of which... The added stress on the existing infrastructure will most likely create more delays and more frustration for the added capacity of the roads leading into the Dresden area will have to be matched somehow by the infrastructure with-

in the city. This scenario alone demands that a serious re-examination of the present project be made. To build only a four-lane modern bridge with no tramway set-up and to build it in a fashion that takes no account whatsoever of what exists in this part of the city of Dresden, goes against every effort made to date, to preserve the integrity or to make good use of the Elbe river valley crossing at Waldschlößchen.



# 2- To Reduce Traffic in the Old Town



Less traffic in the historic district of Dresden will have three huge advantages.

- 1- It will be easier for the visiting public to get around and...
- 2- Less heavy traffic demands on the older bridges will mean longer life and less costly repairs for these structures.
- 3- Less pollution, from idling trucks and busses

A new bridge at Waldschlößchen will relieve the older structures of unnecessary stress. The existing bridges in Dresden can only do so much, and with the ever changing economic and social climate in this part of Germany, the greater Dresden area must be ready to welcome an ever increasing tourism trade as well as the repercussion of economic development in the neighboring countries. With the increasing number of visitor coming to Dresden every year, the historic centre as well as the Elbe valley are areas of Dresden have to be preserved. The area suffered enough from the calamities of man already without having to be defaced or injured once again, all our efforts must be made to solve and construct a viable link that not only will get people from point A to point B, but will be in itself an attraction, the focal point of the arc of the Elbe.

Taking away traffic that doesn't need to travel through the historic section of the city is the main goal of this exercise. But in order to fulfill this mandate, the new bridge MUST BE close enough to the downtown core as to be a viable alternative route in, out and through the area. To divert the business traffic, commuters and deliveries out of the main touristic area of Dresden can only be seen as a blessing by the tourist trade and by the other sector as well, for they will have better access to their clients, other business and the infrastructures.

Less commercial traffic in the historic downtown Dresden also means a healthier environment for both the citizens and tourists. Less idling, less waiting time at traffic lights and better traffic flow make a huge difference on the quality of the air in any city. Proper management of traffic issues can make a city into a livable place, most German cities I have visited are models of these principles.

Dresden here has a wonderful opportunity to enrich itself of an element that will provide its infrastructure with a unique landmark. A new modern bridge in the style of an ancient castle but equipped with the latest technology and made with the most efficient materials in order to carry this new tide of motor traffic in and out of the city centre.

After spending so much energy rebuilding the Frauenkirche, the Residenz Schloß, the Semper Opera and countless other buildings, can Dresden really afford to built anything less than a matching landmark to insure the safety and welfare of it's visitor and of its citizens? I visited Dresden twice myself over the past two years... this is an amazing city with a colossal public transit system. It is the bloodline of the city and for it not to be included at the Waldschlößchen crossing seems to me to be a grave omission at best.

This bridge has to be a model of efficiency, not only the result of a by-pass route, but the logical location for a bridge to be serving a population and a need for better access. I must really put the emphasis on "MODERN" for the bridge I propose will look ancient but like everything ever built in Dresden, this must be a state-of-the-art structure, a marvel of practicality. Only then will this structure be acceptable as a viable solution. It will look ancient to blend-in with it's location, to blend in with the historical events that have shaped the Elbe valley since 1206. It will look ancient because it has to reflect proudly the beauty and the character of one of the most dramatic city on earth. No one can ever erase the legacy of Dresden. Away from the centre of town, we are able to create a unique landmark to the image of August-The-Strong, of his Kingdom, of the richness and talent of it's people.

This is not just rerouting traffic away from downtown Dresden... this is about gracing the Elbe with a new crown, one that many will see. One that will take your breath away. "This" is a new bridge over the Elbe at Dresden, Germany. In my view, this is the most awesome task anyone can think of and as I volunteer my time and energy doing this proposal, my mind cannot forget that this

structure will be seen one day from the top of the Frauenkirche... and for this, and for the people of Dresden, it must be a totally incredible structure.

The debate rages on everywhere. When a lost structure is rebuilt, what is it? Is it a mere copy, a symbol, an attempt to ignore the past. When a modern building is built to look like an old one, then what is it? Six-lane highway. bridges didn't exist in the days of August-The-Strong. Had they existed, what would we be crossing the Elbe on today? Fantasy or pure speculation, in order to stay true to the Saxon heritage, what must we build at Waldschlößchen? I inspired myself of the Baroque Garden structure at Großsedlitz. I thought of using the Kronnentor of the Zwinger but then, I didn't want to deminish the uniqueness and the prestige of the Zwinger. And because the Waldschlößchen bridge is not at the centre of Dresden, I think it should have its own very special character.

I used the Baroque Garden structure at Großsedlitz because it seemed to have a workable scale and because it looked so good in the middle of a garden... I let you be the judge of the resulting transfer to Dresden via Photoshop files. It does seem fitting to use the same basic color scheme as Moritzburg and other castle of the same period, but I am of the opinion than if a better colour combination can be devised to accentuate the unique character of the bridge and of it location, it should be put forth and executed.

As you see in this section, there is much more to this than just a simple road construction project between two localities. An incredible amount of care must be given to every aspects of this bridge for it will modify Dresden. It must be like no other bridge for it will become part of this complex amalgamation of old and new that is Dresden today.

Here lays probably the greatest advantage this bridge has to offer the population of Dresden. The new Waldschlößchen bridge will allow the public a direct and clean access to this immensely prestigious green space. No parking needed, direct access via a new tramway line with a station right at the heart of the valley at the north entrance tower of this new Baroque-style covered bridge. The whole bridge will indeed be a viewing platform where one will be able to examine all aspect of the structure and where one will be given a panoramic view of the Elbe valley. Equipped with wide covered and open pedestrian galleries, bicycle lanes access ramp an stairs at both ends, the new Waldschlößchen bridge will indeed provide easy way in and out of the valley with a direct tramway route around the clock.

Dresden is far better known for its architectural wonders than it's parks and green spaces. It is also better known for the drama of it's destruction than for the amazing contours of it's still very pristine natural setting. Dresden is fast becoming a travel destination

for thousands of people every day. It is crucial that these newcomers be given the means to visit the Elbe valley in an orderly fashion so as not to disturb the area with some of the less-than-desirable effects that hordes of visitors can sometime have on given landmarks or monuments – parking of motorcars, coaches, trash and litter, pet-droppings and so on and so forth.

A tramway stop at Waldschlößchen bridge may prove to be one busy station, but at least, the busses and cars will be passing through and not stopping for a visit! With a little bit of imagination, a few large water pumps and high pressure water-jet lines tracing the outline of the structure, in concert with a specially devised lighting system, one could actually create quite awesome fountain-like light-show on any given nights or at summer holidays. This water system could be part of the cooling system for the solar-panels on the roof which would provide proper lighting levels in and around the structure at all time. As unique as the park-setting it sits in, the new

Waldschlößchen bridge has to be conceived as a much needed element of both transportation infrastructure and cultural landmark. In order to be successful, this bridge must be as modern and efficient as possible and also must be totally integrated in the fabric of it's surroundings.

The new Waldschlößchen bridge will be the entrance by which many visitors will discover the Elbe. As our planet gets much smaller every day, people are looking at pristine areas like the Elbe valley with renewed interest. Providing a state-of-the-art structure capable of the practical as well as the decorative is a challenge... starting with a better feel for what has to be preserved always helped. I thought that the vacant land close to the river was where much of the old city was. I though that it had been vacant since the war... after visiting Dresden twice now, I do understand better what the dynamic and evolution pattern of the city are. Because of this, and because of the very nature of the Elbe from Pilnitz to Meißen, it is of the highest order that ev-

erything must be done to preserve, restore and protect this sensitive area. Digging for foundation is something bridge construction cannot forego. Considering the needs and the advance in modern bridge building techniques, I must stress that the project now being considered represent greater risk to the Elbe and its flood plain. This project can only be successful if it has a positive impact on the environment, in this case, the city of Dresden.

Less digging and soil disturbances, less obstacle in the flood plain and less risk for damages during high water periods, a wider bridge with higher traffic volume capacity to reduce possibilities of traffic tie-ups, all these advantages have one simple goal - keeping the Elbe valley as pristine, as quiet and as clean as we can in the context of a city which will probably reach a population of a million by the year 2020... or sooner! Planning for the right structure and building it the right way will reduce repair cost, closure and again, traffic tie-ups. Putting the

whole thing under a roof may sound a little odd, but the amounts saved in maintenance alone will more than make up the higher construction cost at first and will for sure make of the Waldschlößchen bridge one of the most visited attraction on the Elbe valley.

So how is this covered bridge supposed to bring better access to parkland?

The key to this is the tramway line, for vehicular traffic will be expedited across as fast as it is safe to proceed. Access for pedestrian and cyclist is the other advantage but, these access will be place at each ends of the structure, away from the flood plain. In climates like Canada or Germany, water, ice and temperature variations extract a very high toll on the infrastructure. Covering a modern highway bridge had been out of the question up until recently. Advances in lighting technology with better solar panels and low consumption lighting devices will allow us to erect this new bridge with the

assurance that its presence will not result in a further degrading of the area surrounding it. As for the argument against a covered bridge relating to ventilation, let me just say that a tunnel under the Elbe would indeed be a more complex proposal. The mesh curtain discussed earlier will allow the air through, although the installation of turbine or fans seems a fair necessity in case of fire resulting of an accident. Actually, the fact that the new Waldschlößchen bridge will be covered may indeed reduce quite substantially the number of accidents within its surface roadways. This is somewhat of an assumption for we have no way of knowing... this will the first modern 6 lane highway covered bridge ever made. I suspect a dryer, ice-free roadway to be a place where less accident will occur. As for the question of trucks carrying dangerous flammable or explosive and chemicals products, I would suspect that the same guideline as tunnels would have to be adopted for the new Waldschlößchen bridge.

# 3- *To provide better access to the Elbe Valley Parkland*



# 4- *To become one of Dresden's many attractions*



Dresden here has a wonderful opportunity to enrich itself of an element that will provide its infrastructure with a unique landmark. Building this 'SMART' covered bridge will be, in itself, reason to celebrate... after all, what other bridge on earth can control the amount of light coming in at sunset by adjusting curtain-angles to reduce glare?

How many other covered bridges are built in the Baroque style? Now, this question may seem totally irrelevant to the performance of the structure itself. But it isn't. Any bridge built on the Elbe, far away from any cities can be built in many ways, economically, and with the latest available methods... here in Dresden, we have different demands. This is a UNESCO WORLD HERITAGE SITE, and as such, it is expected that the area be treated with the utmost respect for its history, its evolution and its future.

What does the future imply for a city with a past such as Dresden's history? It simply

means that we must provide the tools for the city to be able to present a livable and coherent version of itself during all ages and stages of its growth. We cannot use different set of historical data or past contexts as an excuse or obstacles to prevent correct or desirable choices to be made for the future of Dresden.

For this city to remain the vibrant capital it has become will demand that we look at the needs of its inhabitants first. The contexts of tourism is one huge industry based in the old city. The Elbe valley is one of the most amazing urban park on earth. Nothing here can be cheap... everything must be made to fit the demands of the population, of its visitors and of more than 800 years of urban evolution. Few cities on earth have the talent for survival Dresden has. That command of survival dictates a unique path for the future, for it is at Dresden that many of us will look to learn and understand what survival means... and when we look, we must be able to see and feel this uniqueness. From every stone, every window and every vantage points, Dresden is a showcase in which

the human race has played, created, destroyed and examined itself. That experience is Dresden and is unique. Creating a sense that what is needed at Waldschlößchen is more than a bridge is the basic message I get from reading about the many attempts made in the past. This thing must indeed be a crown over the Elbe.

We have time still to examine the ideas I bring forth and to integrate other concepts. May be yet reducing the number of span to four, or adopting a different look... may be a less ornate, more medieval style... be it as it may, Dresden has the advantage of being an outstanding place where inspiration comes from 800 years of history. To create a unique Landmark here quite simple... but to create something which will be as unique as it is modern and efficient will be a little harder to achieve. Why? Well, simply because with every passing decade and centuries, Dresden becomes more complex. What is the correct style? What are those correct colours? Why are those modern bridges with high-mast and cable-stayed structures not

acceptable? Dresden and its population seem to have a very defined idea of what their city can look like. It is something that hits me every time I think of Dresden!

The definition of modern city cannot be made without modern buildings. Economically, morally, politically... and yet, a modern city is nothing without its past. There is Dresden. Reclaiming its past from the destruction, but making sure we all know what has been done, when and why. Bridging the Elbe... yet again it seems that Dresden is almost ready to take that very step.

So what is a true landmark in the urban context?

I propose this for an answer. An urban landmark is a building or a place, a space where people gather. A place designed for people, a useful practical structure that breaks new ground for its engineering, its social value and its relatedness to the society that built it. It is my view that if the Waldschlößchen bridge is built to

fit the urban demands of modern Dresden, it will become itself a new emblem of that city. Dresden has a golden opportunity to break new grounds, not simply by rebuilding what was once there, but by creating a brand-new landmark out of the needs for better transport, and for that need to be executed in a fashion that fuses the influences and styles that have been the visual gift of Dresden to our world.

Now with all the very high-tech firms that are active in the Dresden area, it is also my feeling that their participation will create an even more unique bridge at Waldschlößchen. With the benefits of this pool of talent, I am sure that one could stand next to the Waldschlößchen and barely hear a whisper... and here is another fine opportunity for Dresden to be at the forefront of new technologies. Many aspects of the construction and features of the Waldschlößchen bridge will have to be developed, yet Dresden seems to be the best place for that very development to happen.

A tram line enclosed in the roof is an excellent location to install large copies of pictures and photographs telling the story of the city from 1206 until now. The commuters or visitors will walk that gallery or simply see it unravel from the trams as they are sliding along their routes. Since a Baroque structure has to have a roof... (after all this IS a covered bridge) what better use can we make of it than promoting the history of the city around it! What is wanted and desired is for people to get off the trams and walk to the valley below. And in the winter, that portion of the tram line will remain dry and free of snow and ice.

So there it is, a bridge on the Elbe at Waldschlößchen that blends more than just Baroque style with highway traffic... a showcase, a unique monument to the past, built today for the future generations.

The remarks made concerning the existing integrity of the urban landscape in and around Dresden can be debated to great length. Any urban landscape, be it from the 17th, 18th, or 11th century is the result of an evolution made through the human experience itself. No building surviving in Dresden today can be pinpointed as being an untouched jewel from the past. Dresden is the epythemy of what I will call here the evolving human city, a place where human presence is cause for both greatness and catastrophes.

Again, let me ad that a structure situated at Waldschlößchen can actually promote the overall views of the valley and if it gets constructed in the style, or in a style reminiscent of the surrounding structures, it's impact can be very positive indeed. Of course, no one needed a six lane highway bridge over the

Elbe in the days of August The Strong... but we do now. My proposal is to blend the need of a future bridge with the notion of history. My goal is to make what must be done, to blend in and to be in harmony with what exists and what existed long ago. Large, wide covered bridges are not my invention. They allowed our civilization across the rivers of time to our epoch. In both Europe and America, covered bridges got us where we are now. To build such a structure in Dresden up to modern standards and with modern material would indeed be a first. Yes, the top part of the flat roof would indeed be covered of solar panels to generate proper lighting inside. The sides would not be glass but a moderately fine vinyl mesh capable of stopping noise and snow but allowing the air to flow freely through the structure. It would indeed look like a Baroque castle. It would also be a

stop on the tram line and would permit faster access to the Elbe valley by the citizens of Dresden.

This great new bridge over the Elbe will indeed interrupt the view from different vistas in the Dresden Elbe Valley. But above it, the new bridge, if built properly to blend in with the surroundings, will become the centerpiece of the valley. It will be in time a place where people go to admire the view in both direction east to Loschwitz or to the west toward the restored Baroque Jewel of Germany, Dresden. The work of the Institute of Urban Design and Regional Planning of the Aachen University is very complete and precise. A very valuable document, it nevertheless seemed to me to have been short sighted on a few important points. In the definition of terms, a continuing landscape is one that retain an active social

# 5- *To blend with the existing Structures and General Environment of the Elbe Valley*

role in a contemporary setting. I totally agree with this definition and for that agreement, to deny Dresden the proper use of it's assets, both human, physical and territorial would constitute a grave mistake. We cannot forego transformation and evolution on the simple pretext of the preservation of sight lines.

Although not an architect myself, but having seen bridges being built all over the world, I can safely assume that the guidelines and features I propose in this document can only help us understand what is at play here. I propose a three span bridge. The present project has nine which will necessitate digging 11 sets of foundations, versus four. That alone represent a huge saving of material, man-hour and energy. 9 sets of foundations for a four-lane highway bridge of 638m is pure nonsense! The Carola brücke built in 1965-66 offers a better ratio and carries both trams and 4 lanes of motor traffic!

And since the preservation of the Elbe valley is a predominant factor into all this, the less we dig and alter the nature of the floodplain, the better it is for the environment and the folks living within its reach. Eleven piers offer way more resistance and potential for damage to a structure than five... specially with the potential for flooding associated to the Elbe.

Not taking this in account is alarming indeed. Keeping the noise to a minimum? No, This thing has to be so quiet, standing beside it, one must only be able to hear a faint humming... nothing more. This is why a covered bridge is the answer in Dresden. With modern materials and the latest advances in sound proofing, the inside vault of this bridge must absorb 90% of traffic noise. The pavement itself can be made of smaller particles and made to reduce tire friction noise by almost half according to recent studies in the USA and France. Keeping the noise in from one side of the flood plain right across to the other side in a magnificently ornated structure and in almost complete silence...



# Conclusion

In regards to sight-lines and visual impact. I agree that the proposed covered bridge will cause a disruption of the sight-lines east-west or west to east as you may prefer. It is my opinion that although larger and more obtrusive than the present project, the Baroque covered bridge concept harmonizes better with the general look of the area.

There is no doubt in my mind that what we are losing in sight-lines, the new project more than makes up in giving a new focal point to the Elbe valley in the centre of the arc between the old town of Dresden and the eastern suburb of Loschwitz.

This new platform will allow visitors to get a 360° view of the valley and of the amazing structures that exist on both sides. This ability to visualize the entire Elbe valley in this fashion is impossible without a structure standing in the valley. We will lose some of the longer sight-lines, yes, but we are gaining a superb belvedere capable of generating a completely new sense of what the Elbe valley means to the people of Dresden... seeing the valley from the two entrance tower of the bridge will create a completely new set of possibilities for artists to render as well as for citizens and visitors to actually contemplate one of the nicest urban green space the world has to offer. This bridge has to

be conceived to enhance Elbe river valley.

I especially planned the north entrance tower to be bigger and taller so as to blend with the hills behind it and to be able to give visitor a breathtaking view of the valley from the old town of Dresden all the way past Loschwitz. This tower will also be the main part of the Elbtal Tramway stop and in it will be hidden stairs and lifts to grant access to the photo gallery at track level, the promenade at road level of the bridge and to the valley floor and the open parkland.

The south tower will have a shorter stance but will also allow people to access the 2 levels of the bridge from the valley floor and the existing network of cycling and walking paths. The longer span length and fewer piers also means much less disruption in the valley during construction as much of the bridge can be designed to be built on shore, away from the valley, these components can then be moved into place with ease and would not require the valley itself to be shut down for weeks or months during construction. The goal is to do as little work as we can in the valley itself. Once the main super-structure is in place, the valley can be wide open and the work above does not need to interfere with human activity in the parkland. It should be organized and planned for people to

be allowed inside the structure through a set of steel cage walkways to allow the public to see the bridge being built in front of them. This would be impossible to achieve for a bridge being built over a deep gorge or a wider body of water... but as the valley floor lays one a few meters below, temporary platform to allow the work to be seen by the public would create a real sense of belonging, an opportunity for people to really feel the pulse of the project and to feel its progression. It is also a marvelous opportunity for Dresden to showcase it's newest attraction... and start attracting more visitors to the area

This bridge must be the jewel of the Elbe. As Dresden is becoming again the beautiful capital of the Saxon free-state, if we must breach the sight-lines of the Elbe valley, lets do it with something worth looking at, let's create a masterpiece of modern engineering the likes of which has never been seen anywhere in the world...

