THE DANUBE EMBANKMENT OF BUDAPEST – A SWEEP ROUND [1]

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Until the nineteenth century the transport routes followed the rivers and upstream the boats had to be towed from the riverside. The passing through had to be allowed all along the river. The emergence of roads along the banks goes back to those times.

Towed cargo-boats have lost importance after steamboats appeared and – especially in the inhabited territories – the cross-connection between the bank and the water has gained ascendancy. New activities have appeared besides the fishing, as water-demanding activities (e.g. leather tanning), energy-demanding ones (e.g. mill-trade) or transport-demanding ones. Busy river-quays have developed in this way.

THE RIVER, AS A RECEIVER OF THE SEWAGE

The settlements with growing number of inhabitants meant also a bigger source of pollution. In some places the contradiction has taken shape quite soon: it was not possible any more to turn towards the water and to use the river as a sewer at the same time. The ratio between the volume of inhabitants and the trade, versus the quantity of the water flowing through the settlement determined the time by that the river got absolutely dirty. The Themes in London seemed to be in critical condition already 150 years ago with its bad smell and disappeared transparency.

The load-bearing capacity of the Danube was not yet in danger in that time. Still Pest's big flood in 1838 drew the attention to another problem, namely that the dirt

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[1] A bit shortened form of the Hungarian text was published in the Budapest magazine 2004/2 (April).

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coming from the latrines of the flooded territories can cause epidemics. The problem made urgent the canalization, that is instead of keeping the sewage in the site, directing it into the Danube. This lead to the covering of the open running streams of the Buda side, transforming them to sewers in this way**.** (*Fig. 1.*)

Figure 1: The mouth of Ördögárok ('Devil's ditch') at the Elizabeth bridge. Both the arriving sewage and the dam dike that turns the untreated sewage towards the main current are well visible because of the low level of the water.

The construction of the quays has started in the middle of the nineteenth century – not independently of the big flood's lesson. The built supporting wall of the river and the retaining wall of the upper quay defended the city against flood as well. The inner section of the monumental work was ready within two decades, due to its constructor, Ferenc Reitter. It's grandiose, homogeneous curve can be admired even today, with its well-designed change of three kinds of sections in the lowest supporting wall, namely vertical, oblique-angled and sections with stairs.

This built embankment is our 130 years old heritage and became a part of the World Heritage as well. Our century old heritage is the untreated sewage too, running from the Buda side into the Danube – but this belongs just to us and not to the world. In the twentieth century both the population and the water-consumption per

capita have grown and have reached a higher scale. Today about a hundred thousands cubic meters of untreated sewage arrives daily into the river.

The writer of this article is convinced, that it is not an up-to-date solution to collect the sewage throughout all the capital, to carry it for kilometres till the Danube and to transfer it to Csepel-Island into a central sewage treating station; a more recent answer would be the treating in smaller quantities ("locally"). We could rehabilitate in this way not only the Danube but the former fresh-water streams of Buda too. In the same time the century-old development of the sewage system thinks exclusively in the centralized treatment. Still there hasn't been prepared any calculation to state, which establishments could be kept and what would be the cost of a change to an alternative system. It is possible we really cannot leave the beaten track – but before saying that it would be necessary to examine the question comprehensively.

Today the necessity of a main collector sewer from the Nagyszombat Street (in North of Budapest) till Lágymányos district (in the Southern part of Budapest) seems to be unquestionable in official documents. It is also "fact" that the collector must be built along the Danube-bank as the lover quay's side-extension. By this thinking the only question left open is, who (the capital, the country or the European Union) would finance the investment.

The plans to increase the traffic capacity of the lower quay were based upon the solution above. If the supporting wall had to be disturbed *anyway* – the argumentation begins – than it is worth to broaden the embankment by 6-8 meters, thus allowing the cars to use 2x2 lanes – instead of the former two lanes.

It is important to declare here: there is no pressure to transpose *in any case* the supporting wall. Even if we accepted the necessity of the main collector sewer, it could be built below the upper quay, below the lower quay, or below a next street (the Fö Street at the foot of the Buda Castle). All the solutions have advantages and disadvantages. These should be taken into consideration, but there is not any compulsion to destroy the supporting wall! It is more advisable to examine the questions of the quay-extension in urban development and in traffic context – independently from any "anyhow".

THE PLAN OF THE HIGHWAY ON THE QUAY

The necessity of the extended traffic capacity of the lower quay in Buda is supported by traffic and topographic arguments. According to the traffic surveys: 60% of the traffic passing through the Batthányi square or the Technical University cross-sections drives along the entire bank.

Initially the engineers argued with the big ratio of the transit traffic, and there were but few junctions planned. The main point was the improvement of the connec-

tion between the southern and northern territories of Buda. This is transit traffic from inner Buda's perspective – whatever is it for the city as a whole.

The role of the lower embankment at Buda is identical with the role of the outer (Hungaria) Boulevard in Pest; the duty is to make the quay more capable for that role – argued Tamás Várady (an expert in traffic) in a panel discussion even in 2003.

From inner Buda's point of view this aim can be interpreted so, that the inhabitants must bare the transit-traffic led through their living area, while their own situation does not improve, they can hardly utilize the development. Naturally in a big city there must be territories sacrificed to gather and to lead through the traffic which might be disturbing in other places, but it is astonishing if the traffic planners consider that the Danube-quay under the Buda Castle, the quay's curve in the middle of the capital, a part of the World Heritage would be such a territory.

The role of the traffic channels has been re-evaluated in the twenty-first century. The inhabitants of cities definitely look to a transit-road with four lanes as polluting stripes. Such a road could harmonize only with a river which serves as a sewer, and to which the well-to-do burgers would turn their back anyhow. Where the river forms a brown field of the city there its banks could be used for outskirt traffic functions without any problem.

Soon it became clear that just the touched territories are contra-interested in the outbuilding of a four-lane quay-road. This fact forced the planners to alter the early conception. In the later prepared plans the existing junctions are kept, developed, and even news were created.

In the same time it must be realized, there is no need for any quay-extension just because of the traffic targeted inner Buda. That kind of local traffic would not even fill in the present capacity. This is well shown on 20 August festivals when big crowd visits the quays between the inner bridges. It is possible to get there without any problem – in spite of the fact that these sections of the quays are closed for vehicles then. If the transit-traffic through Buda disappeared or decreased significantly it would increase the local circumstances meaningfully by in itself.

Just this is they want to achieve – say the planners, – that is to improve the circumstances for the local traffic, to lighten the inner streets from the traffic. They consider the only way to pull the traffic out from the streets is to lead it to the quay. We have arrived back to the point that one single function, namely the quay's passage-way function would be a value and, according to the traffic experts, any other functions of this zone could be sacrificed.

Figure 2: The lower quay in a period when the traffic of vehicles is prohibited: The local targeted traffic can get here, even if the intermediate section of the quay is closed for the vehicles.

Worthy to draw the attention: in this case the conditions of the territory we intended to lighten do not improve either. The streets in the background zone will be loaded thoroughly to fill up the quay with traffic. It is true instead of the parallel streets to the Danube now the perpendiculars to it get from this extra traffic.

COMPLEX URBAN DEVELOPMENT APPROACH

If it is not the traffic's permeability that we consider as the fundamental value of the Danube bank, we should not concentrate to its improvement as the starting point. Those prepared the Budapest Urban Development Concept did exactly the same in 1998: they centred the overall aims of the urban life. They ranked among these main aims the city's turn-back towards the Danube as well.

One can follow the changes in the different studies written until the four years later acceptance of the Concept: how the rigid and not harmonized plans of the sectoral departments contradict to those overall aims, how the planners face to the dis-

crepancy of the overall values and the traffic proposals and how the impossibility of the compromise softens up and makes the realization of the overall values uncertain.

The study in 1998 defines the subject clearly: „The Danube banks – that serve as scenes of commerce and industry for the city – dispose with such a potential for development that allowed always at first the revaluation of the territories and the changes in land-use, because of their potential for development. […] In forming the spatial configuration of the city, first of all it is the qualitative development of the Danube-banks that must be a main aim, and the development processes must be subordinated to these quality requirements. […] The qualitative development of the zone alongside the Danube is an important element of the Urban Development Concept, and it is one of the most important value-preserver elements from the long-term development's point of view.

The quotation above summarizes a train of thoughts also supported by us. The study of 1998 originated in the strategic roles and objectives of the city, and tried to deduce the necessary agenda from that base. Consequently, it was very cautious when getting to a development that contradicted to the strategic objective: "We have to consider whether to increase the capacity of the road."

The discussions of the Concept pointed at the conflict too: if the leadership of the city considered the opening towards the Danube as an objective, why do they want to isolate the city from the water by a transit traffic flow of four lanes? Is the improvement of the circumstances of the disturbing transit traffic really part of the qualitative local development?

In 1999, in the next volume of the study the Concept is getting more uncertain in the formulation of the same aim. Impatience can be felt from the evaluation of the actions along the Danube: „The municipality of the capital played a pro-active role in the preparation of planning, at the same time the investments started here still have not become propulsive projects. The success of the city's turn-back towards the river seems to be an open question of the urban development."

Whereas it seems to us, that the valuation of a project-level capital-attraction effect and that of the success in urban-development-level are mixed here, the conclusion is the point: the former objective (the turn-back towards the river) is getting uncertain in the document, while among the proposals to create good position for the Danube axis there appears a definitive proposal on both the extension of the quay road in Buda side and the reorganization of traffic-system.

The judgment of actions along the Danube is squarely positive in the final Concept (in 2002). The valuation is of urban development scale and accommodates the actions into a long-term trend. „A progression can be observed along the Danube since the end of the nineteenth century, as the industrial functions yield their place to

city functions of higher standard. This process goes on today as well. Recently the freight rail yard at the Boráros square has closed down, as same as an industrial plant in Lágymányos (giving place to an Infopark) or the dockyards in Óbuda-Island and in Angyalföld, the gasworks and the housing factory in Aquincum.". The Concept attracts attention to the fact that the outbuilding of bridgeheads is less and less form an integrated part of the city's public space. „The primacy of the traffic pushes the usage of the place as public square into the background, makes the creation of central spaces near the bridgeheads impossible." We get again very near to declare, that we could totally agree: the only thing that should be admitted that the subject of the quoted sentence is true not just for bridgeheads but for all transit traffic leading through inner city areas.

But at that time the writers of the Concept did not consider yet the quoted statement to be relevant to the quay of inner Buda. Just on the contrary, they propose "the development of capacity and connections of the road on the lower quay" – beside also the development of the tram and the regional train – to improve the North-South traffic circumstances. Mixed values are present in the long-term vision as well: „The Danube's zone will reach a higher value by the systematic interventions, namely by the development of the northern and southern shores, by the improvements of sites and solutions of different functions connected to the Danube, and by the conscious multifunctional establishment of the North-South traffic axis."

The original aim (the city's turn back to the Danube) seems to be partly disappearing, together with the idea that the development must be subordinated to the quality requirements. Instead, the future's vision is built upon the actions, and in the meantime the Conception gave up its intention of analyzing whether those actions were still in harmony with the original objectives.

FUTURE POSSIBILITIES

Towns which used to turn their back to their rivers around 1960-70, now reconstruct their banks, creating pedestrian areas, waterfront public places there. It would be strange if Budapest moved just against this direction, and just now would turn its back to its high street given by the nature.

It needs a careful consideration again to conclude, what kind of relationship should be evolved between the riverside districts and the Danube. Do we want to create liveable embankment, with accessible harbours, prosperous water transport and public places, potentials for spare-time activities – or shall we isolate ourselves from the river?

If we chose the former aims, it is the transport solutions that we have to adjust to it. Leading the through traffic into the same zone does not harmonize with the se-

lected aims. There exist solutions to eliminate the through traffic, for example by terminating the possibility to drive along the quay in its whole length. An intermediate section might be converted to pedestrian zone. The summer-program "Plage" at the Pest-side of the Danube (or it's original in Paris along the Seine) could be a good sample. A 30 km/h speed-limit might then be introduced on the existing quay upstream and downstream of the closed section. The bicycles might become equal participants of such calmed traffic without building any separate bicycle-lines. Pedestrians also may cross the quay easily by this way.

A gradual transition would be achieved, if the new regulations were introduced only for a summer month in the beginning. If according to the later studies the construction of the main collecting sewer along the Danube was unavoidable it could be constructed below the lower quay, without transposing the supporting wall. The construction itself would eliminate the possibility of driving through the whole lower quay for 1-2 years and this period could familiarize the city gradually with the new function of the quay, namely the new attraction of Budapest, the free time zone along the Danube.

"The capital's socialist vice-mayor informed the Urban Management Committee on their Monday session that the Prime Minister's Office had urged a change in connection with the road on the lower quay, based on the suggestions of civil organisations. In this way the main collecting sewer would be built without any road extension, just by displacing the supporting wall.

According to János Atkári, the vice-mayor from the other leading party (SZDSZ), it was not because of the protest of the green organizations that they changed the earlier concept of the enlargement of the embankment, but the capital had found it problematic as well. In addition the quay's extension did not have its financial cover. The local government had planned 10 billion Ft to spend on this project in 1998, and this sum would not be enough even to move the supporting wall."

Resource: City Hall's News, MTI 24 February 2004 (Translated from the Hungarian original) http://www.budapest.hu/engine.aspx?page=news&artname=20040224-cikk-bizottsag

Budapest, March 23, 2004.