TIMISOARA’S TRAM DEPOT- AN ENGINE FOR THE REGENERATION OF THE FABRIC NEIGHBORHOOD

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Abstract. Timisoara, the biggest city on the Western border of Romania, has always been receptive to innovation. Timisoara was one of the first cities in Europe to adopt street lightning, telegraph and horse drawn tram. The tram has been and continues to be a determinant presence on the cityscape. The removal of the former 18th century Vauban fortification is partially due to the development of tramlines. The tram influenced growth directions in the urban fabric and reorganized the public spaces. In Fabric, the former industrial neighborhood of Timisoara, the tram depot, erected in 1897, is one of the best-preserved industrial sites in the city. Situated near the East Train Station, the tram depot could be an important regeneration pole for the entire Fabric neighborhood and furthermore for the city.

The still-in-use tram depot contains several valuable buildings including: maintenance and repair workshops from 1898, the 1920’s depot, tram-painting workshop and workers’ locker room. The rehabilitation of the depot is not just a punctual reconversion gesture, but also a boost for the regeneration and redevelopment of the entire East train station area, and an enhancement in the quality of life for the entire Fabric neighborhood. The owner is open to redevelopment ideas as transforming the depot into a museum. For the moment, the tram depot is in the process of being listed as a historical industrial monument.

The purpose of this paper is to analyze in what way the depot should be restored as to become an engine for the regeneration and redevelopment of the Fabric neighborhood. The East train station area is an important transportation hub for the city, but lacks quality of the urban space for both inhabitants and travelers. The rehabilitation of the tram depot could solve some of these problems, and grow awareness on the importance of industrial heritage. This paper intends to propose a redevelopment and regeneration scheme for the tram depot and its surrounding area.
1 INTRODUCTION

Timisoara, one of the biggest cities in Romania, situated in historical region of Banat, near the Western border of the country, has always been receptive to technological innovation. The city started using the horse drawn tram in 1869, in a time when no large European cities have adopted one yet (the tram is used for the first time in New York in 1852 and in Europe, in Paris in 1854).

The tram lines have grossly shaped the city we live in today. The 18th century Timisoara had 4 historical neighborhoods: the Cetate neighborhood, the fortified hearth of the city, Fabric, Iosefin and Mehala. The three historical districts were situated, due to protection and defense reasons, at around 1 km distance from the fortified walls of Cetate.

The introduction of the tram was a matter of great importance, linking for the first time the distant districts of Timisoara. The demolition of the Austro-Hungarian Vauban fortification that encircled the Cetate neighborhood, at the end of the 19th century, was partially due to the introduction of a new tram line and the need for city expansion. The tram is greatly responsible for the reshaping of the empty fields and the public spaces in Timisoara, at the beginning of the 20th century.

2 HISTORICAL BACKGROUND

The tram depot is situated in the historical neighborhood called Fabric, the former industrial district of the city, in an area that grew mostly in the second half of the 19th century. The Tram Depot complex develops around a major road of the city, that links Fabric with the city center, in the vicinity of the East Train Station of Timisoara. The position in the city and the value of the buildings on the site, makes this area a very important engine for the boost of the neighborhood, and the city as a whole.

Figure 1: Timisoara, the tram depot location on the city map
The first joint stock tram company was founded in November 3, 1867, solving traffic distances between the city and the suburbs. On July 8, 1869, the first line between the city and the Fabric district was opened. That same year, the tram line was expanded to Iosefin, a district situated south-west from the city center. From this first 6 km long tram line, a network started to grow in the last decades of the 19th century, adding new lines and opening new routes, which until the introduction of the electrical tram system, also included the Elisabetin district located in the south of the city and reaching a total length of 10.7 Km.

In 1868 the tram society built the first wooden tram depot for 24 wagons and stables for the horses in the Fabric neighborhood, near the power plant of the city. The depot was moved in 1873-1874 to the current location. Here, in 1876, an existing building was refurbished to be used for offices and the manager's apartments. In the yard of this existing building, a tram depot with 5 lines was built, a horseshoeing workshop and stables for the horses.

From this first phase, the depot has evolved in different stages. In 1899, with the electric tram being invented, the depot was reorganized. A new complex was erected including: the management building, the tram depot that could host now up to 25 wagons, the repairing workshops and a deposit. The second tram depot was built in 1909, next to the existing one, and the repairing workshop was enlarged.

The second construction phase happened around 1920, when the depot complex is extended and new functions are being added. After a serious fire in the autumn of 1920, new repairing workshops are being built, large enough to host all the tram wagons in the city.

The third and final phase, around 1926-1927, is marked by the extension of the complex on the other side of the street and the construction of a third tram depot with 6 lines and a full capacity of 36 trams. Several auxiliary buildings (a dormitory, a medical point, dormitories for the personnel, new workshops etc.) were erected around the same time.

In time, the buildings in the tram depot complex suffered a series of alterations, transformations and additions. Some of these alterations on the last decades of the 20th century were detrimental to the historical character. Nevertheless, the tram depot complex still holds some valuable buildings that have maintained their historical character, part of the industrial heritage of Timisoara.

3 BUILDINGS WITH HERITAGE VALUE

Figure 2: Fabric, the tram depot location on the city map
The tram depot is situated in the south-western part of Fabric, the former industrial district of the city. The depot site is divided by one of the major streets of the city that links Fabric with the center of Timisoara. The depot complex is part of a larger urban ensemble that contains several important urban and historical areas such as: the East train Station and the neighboring Sock Factory, the “Badea Cartan” Market and a protected former industrial housing area.

The tram depot complex has several buildings, some of them with a high heritage value like: the Maintenance and Repairing Workshops, Tram Depot no. 1, the Tram Painting Workshop and the Worker’s Locker Rooms.

3.1 Maintenance And Repairing Workshops

The volume of the Maintenance and Repairing Workshop is composed of two similar halls, the first built around 1898-1899, and the second around 1909. The first hall was originally used as a tram depot with a capacity of 25 wagons. The two halls have a rectangular plan (56, 65x 18,27 m), each of them with 5 tram lines and a maintenance channel. Brick is used for walls and foundations. The roof structure consists of riveted “T” shape steel lattice beams, with longitudinal wood purlins that support the roof deck and the roof sheet. The interior height of each building is 6,20 m. The two halls have 3 skylights not detached from the room plan.

The main facade of these former tram depots is entirely occupied by 5 double wooden gates on a metal frame. Above the wooden doors we find a continuous windows strip, a wooden deck gable and a circular window placed on the symmetry axis of each facade.

3.2 Tram depot no. 1

The new tram depot hall is situated on a site on the other side of the road, facing the old previously described tram depot erected in 1889. The initial project envisioned two new tram depots in 1925, but only one was finally erected between 1926- 1927.

For that time period, this industrial building was a premiere, in the sense that highly advanced structural solutions and top technical innovations at a functional level were being used. The industrial hall had 6 tram lines, water and sewage. The hall had a maximum capacity of 36 tram wagons. In the same time with the new tram depot, additional buildings were being
added: workers dormitories, several workshops, a medical cabinet and a new depot for electrical locomotives.

The Tram Depot no.1 maintained its original features. The rectangular plan of the hall is 66, 13 m long and 29, 60 m wide. The wall structure is made out of brick while 10 metal frames, each with 3 joints support the roofing system. The “T” shape metal lattice beams with” I” shape metal purlins and metal bracing in longitudinal section, together with the roof deck and the roof sheet generate a very simple yet innovative structural system. The hall is illuminated through a “Wema” steel frame skylight positioned on the median section of the roof structure.

The main facade is entirely occupied from one side to the other by 6 wooden doors, 4,5 m high, mounted on a steel framework. On top of the 6 wooden doors, a strip of 6 windows mounted on a steel frame, create a full-empty composition on the facade. The gable resulted from the two roof slopes is occupied by 4 trapezoidal glazed surfaces following the slope of the roof.
3.3 Tram Painting Workshop

The first workshop, originally for polishing wagons/cars, was build around 1920, together with the first extension of the tram depot complex. The workshop featured a line for 2 wagons and was equipped with a radiator heating system powered by its own boiler. The first workshop is refurbished and extended in 1926 for two lines and a capacity of 5 wagons/cars, in relation with the boiler space and a locker designed around the same time.

The polishing workshop, tram painting workshop today, has been transformed over time, but still retains enough original features to confer value to the ensemble.

The workshop is organized as a rectangular of 9, 65x 27, 05m, joined by a boiler and a locker, thus leading to an L-shaped plan. The building has 50 cm thick brick walls. The original hall has undergone transformations, by replacing the original metal structure with concrete floors. The skylights as the main facade remained detached from the floor plan due to this transformation, reminding of the former 2 slopes roof. Rear corresponding boiler has undergone several changes, including the facade. It has a structure similar to that of the workshop. The chimney kept its original shape. It is made of brick, has a circular section and a prismatic base of 2.15 m and 18 m high.

The paint shop main facade is divided by pilaster strips delineating plastered panels. The facade has two large windows with arches on top and metal frames. This building sits across the main hall building of the Repairing and Maintenance Workshop and the two facades have a common architectural language raising the value of the tram depot complex.

The main facade has a strip of metal-framed wooden doors from side to side, and a continuous glazed surface above, with a plastered gable surmounted by a row of bricks.

![Figure 4: Tram Painting Workshop](image)
3.4 Worker's Locker-Room

Set in the back of the tram depot enclosure, adjacent to the main former depots and workshops, the locker rooms were built around 1920. The building has an almost square plan of 15, 46x 16,10 m. The building is organized in two areas: locker rooms and bathrooms.

The worker's locker rooms is made of brick, with walls 55 cm thick and a number of central masonry pillars with dimensions of 55x55 cm, arranged in the axis of symmetry. They support a longitudinal wood beam of 30x40 cm. The beam supports a half apparent wooden lattice roof structure with intermediary wooden props. At the junction between the hall and the workshops, that volume of the worker's locker was modified by inserting a wooden floor over the bathrooms, on top of which the archive and office was placed.

The main facade was originally structured according to a symmetry axis, marked by the access and a gable with a circular mullioned steel window. Brick pillar strips organize the upper part of the facade.

These buildings from the tram depot in Fabric, Timisoara are vestiges of significant industrial architecture from the tram history of Romania. They are part of a less represented transport industry heritage, containing railways, bridges, depots, locomotives and train stations.

4 THE DEPOT REGENERATION

The rehabilitation of the tram depot is not only an action of historical recovery for the city, but also an engine of regeneration for a larger urban area. The Fabric neighborhood, with its industrial past, has little going on in the present. The East train station, situated in the vicinity, is not a quality urban space. Although an area of great importance for the city, the train station and its surroundings are left in urban decay. A regeneration project for the tram depot in direct connection with the East train station could be the solution to regenerate one of the former most vibrant parts of the city.
4.1 What regeneration actually means in Timisoara and Romania

The future of the industrial heritage in Romania is uncertain. The number of industrial sites and brownfields in need of regeneration in Romania is impressive. A study [1, 3] puts Romania on the first spot, in a top of the most extensive brownfields in Europe. Some might consider this, a great advantage, but unfortunately without the right political, legal and economical tools, what could be considered an asset might turn out to be a great problem.

The Banat region, where Timisoara is the most important city, was one of the first parts of Romania in which industry developed, even as early as the end of the 18th century. The original destination of the industrial historical heritage is varied: mines and mining equipment, syderurgy and metallurgy, brick factories, water and stream mills in the mountains, etc. In the important cities in the north of the region both heavy and light industry flourished. In Timisoara, we find some of the most remarkable industrial heritage examples: beer, tobacco and chemical factories, the water supply system and water towers, the power station and the slaughter house, the tram depots etc.

After 1989, when the changes of political regime occurred in Central and Eastern Europe, extensive losses occurred in the industrial historical heritage in Romania. The communist regime had a policy of industrialization in a country having been till WWII mainly a source of agricultural products. After 1990, the industrial buildings and the existing equipment were abandoned. Most of the mobile patrimony disappeared, but the buildings still standing offer multiple possibilities of reuse.

Timisoara, one of the most vibrant industrial cities of Romania in the 18th and 19th century, like all major cities, decided to abandon many industries. Some of the industrial buildings remaining are very valuable, and could easily be reused. Unfortunately many local investors prefer to demolish and rebuild, in an attempt to get immediate earnings. The local administration has little saying in this without strong legal tools. Some of the industrial sites in Timisoara are very close to the city center, and the value of the land surpasses the building's value. The fight to transform some of the old industrial buildings into historical monuments and protect them from demolition is fierce, and many valuable buildings are lost on the way.

Timisoara is redesigning the Urban General Plan this year, and regenerating the old industrial sites is one of the key projects of the city on a long term. Unfortunately, a sustainable regeneration strategy takes time, money and motivation. In the Urban General Plan, no clear lines are drawn between regenerating a heritage industrial site and regenerating a polluted brownfield.

If we follow some good practice example in Western Europe, Romania has little to no example to offer. There are a few logical steps to be taken in the process of regenerating a former industrial site. [2]

Large regeneration projects like London’s Docklands, to cite one of the most famous in Europe, take time. The regeneration of the abandoned docklands in London started 30 years ago and the process is still going. Regeneration needs money, strategy and a happy private-public marriage. Some of the industrial sites have hundreds of years of pollution and to transform a hazardous site into a livable one takes large investments.

4.2 Regeneration steps

Regenerating a former industrial site also needs public dedication, and it is virtually impossible without the right transport infrastructure. In the end, historical and heritage value needs to level with economic value.

Of course, Timisoara has neither the economic force, nor the location or the political will of London, but some conclusions could be drawn from the example cited above:
• Industrial regeneration needs strong political will. The success stories in the Western Europe meant close public-private collaboration. The public administration creates the spark by investing in the infrastructure: transport, urban utilities, taxes exemptions etc. and lures private developers and investors.

• The redevelopment of an industrial area should be part of the city’s strategic development plan, and maybe one of the key projects. Following the plan step-by-step, without derailment is highly important, and gives a sense of security to all investors.

• Simply rehabilitating a former industrial site is not enough, mono-functional areas are destined to die. The new functions should be mixed-used, adapted to the character and needs of a specific neighborhood or city.

• Usually the quality and attractiveness of an urban site counts. Almost all large industrial regeneration in Europe have a distinctive landmark, and in accordance with the budget of the investment, famous architects and artists are involved. Timisoara has a great number of talented local artists and architects to be used.

• Taxes exemptions, attractive urban policies, and continuous political support are also very important ingredients.

5 PROPOSALS

The tram depot in Timisoara might just turn out to be one of the few good examples in Romania, due to a number of reasons:

• The tram depot management wants to transform the complex into a historical monument and to protect it from demolition. The same management is opened to the rehabilitation and re-function of the valuable buildings.

• The tram depot has a very important position, next to a major road of the city, in the vicinity of the East train station and other industrial heritage sites.

• The valuable buildings are in a reasonably good shape, and could be easily refurbished.

• The City Hall has a strategy regarding the regeneration of the East train station and the tram depot could be part of this project.

One of the possible sceneries is to transform the site into a mixed-use Museum of the Timisoara Tram and a Cultural Center. The museum should host permanent and temporary exhibitions, with old machines, tram wagons and other valuable pieces on a permanent show. The museum would be accompanied by a Cultural Center with meeting spaces, shops, restaurants and cafes. The vicinity of the East train station would ensure a permanent number of visitors and the fast connection with the city center could make the Cultural Center one of the most popular in the city. A walk around Timisoara in an epoch horse drawn tram could be a sure tourist attraction. This walk, despite being a thrilling experience could be the pretext to promote valuable architecture on the way.

The Fabric area, despite its great location in the city and historical heritage, has been for a number of years, a neighborhood with serious social problems. In order to regenerate this neighborhood, bold urban gestures are needed. The tram depot, the East train station and the surrounding industrial heritage sites could be a first step in this process. For years, the City Hall of Timisoara, stated that young people should be attracted to Fabric, but in order to attract them, new functions are needed. The rehabilitation and reconversion of the Tram Depot in Fabric could be a first step to revive one of the most beautiful neighborhoods of Timisoara, and restore it to its former glory.
CONCLUSIONS

The reuse of the depot has two targets: on the one hand to save a valuable industrial heritage, endangered because of land value; and on the other, to generate an engine of sustainable development for the western part of the Fabric neighborhood.

As suggested above, the regeneration and rehabilitation of the tram depot could be not only a profitable business for investors, but a tool in changing mentalities towards industrial heritage.

For years, the strategy of the city was to attract young people in Fabric and revive the neighborhood. This project together with the rehabilitation of the East train station, the
“Badea Cartan” Market and the surrounding historical heritage will definitely be a magnet for young and creative people. Maybe with this project, Timisoara will learn that industrial heritage in the city is a great asset in itself, and not a pretext for land transactions.

7 REFERENCES


