Trimestrale del Laboratorio Territorio Mobilità e Ambiente - TeMA*Lab*

http://www.tema.unina.it ISSN 1970-9870 Vol 4 - No 4 - dicembre 2011 - pagg. 47-58

Dipartimento di Pianificazione e Scienza del Territorio

Sperimentazioni Università degli Studi di Napoli Federico II

ailway Station Role Composing Urban Conflicts

Il nodo della stazione ferroviaria come luogo di riconciliazione di conflitti urbani

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Birth and development of conflicts between railway and city

Mobility has always generated conflicts, which are caused by a plurality of demands on the use of physical space. Street is an emblematic place of these tensions because it represents a shared and limited space where different needs take place (like rest and motion) and where various users claim their right to use it in a safe, easy, efficient way.

The railway goes out from this scheme – or rather it exasperates it, because it takes physical space from the city by using it exclusively. This has been generating huge physical, functional and social conflicts whose effects spread out of the space strictly dedicated to railway mobility, by involving not only the surroundings but also a wider urban area.

If these tensions are more or less marked all along the rail lines, the station node represents a key point in which conflicts between city and infrastructure seem to be concentrated with particular intensity, in view of their central position in the heart of the served urban systems. Apart from being symbolic places where the urban space becomes infrastructure and vice-versa, rail stations are paradigmatic spaces where high volumes of passengers, services and new activities are concentrated, thus being able to reshape the social and ethnic compositions of the neighborhood (Maffeo 2011).

Actually, the stations are places – or rather "non-places", according to Marc Augé's definition, which indicates those contexts which are neither identity-making, nor relational, nor historic (Augé 1999) – where great contemporary urban problems are taking place, like congestion, insecurity, segregation. Even they became the scene of political armed fights that have reached the extreme limit of their cruelty just inside the rail stations, where bloody mass murders have taken place.

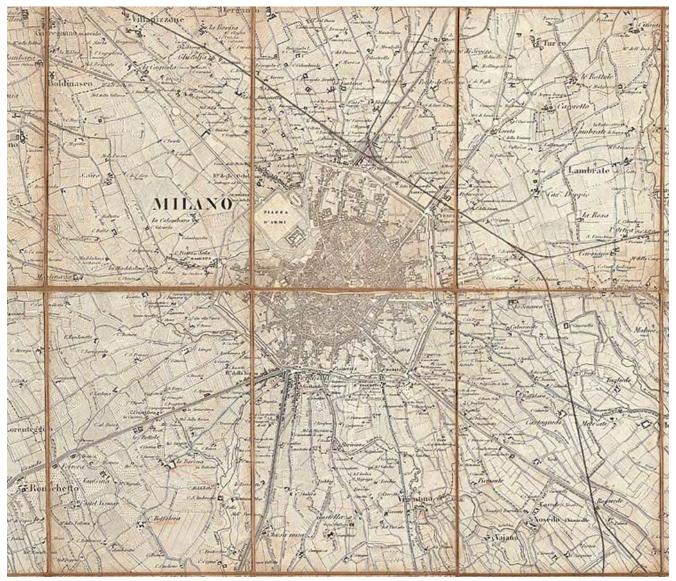
Despite railway infrastructure was the structural framework on which modern European States were developed, contributing to unify territories and to the establishment of Nations, right from the beginning, the relationship between railway and city has been characterized by physical, functional and social conflicts, mainly because of a lack of integration between infrastructural and urban policies, which have been produced strong conflicts during decades. These critical situations have concentrated on the railway stations surrounding areas, which have started symbolizing the main conflicts that are taking place inside the cities. Similarly to what happened in the XIX century, today railway is a strategic infrastructure for the European territory development, thanks to the introduction of high speed transport systems and the promotion of rail transport as a more sustainable transportation system, which can quickly connect metropolitan central areas, more and more impenetrable by private vehicles, and key functions centres for the contemporary urban systems

In this framework, railway stations are becoming public places representing a complex society which is more and more dedicated to motion; thus they offer an unmissable chance not only to carry out urban development and spatial cohesion policies, but also to compose old tensions caused by the sharing of physical space, which is more and more scarce and valuable, and by ghettoization phenomena which have been produced at local scale, between rail infrastructure and the surrounding urban context. Today, such conflicts are growing and they are involving many actors who express a lot of different interests, needs and expectations, relating to the station areas' destiny.

Starting from the analysis of some conflicting situations between rail stations and the surrounding areas which have took place until today, this paper investigates some recent renewal interventions on Italian and European main railway nodes, their complex dynamics and the role of the most important players involved in these developments.

Contemporary main rail stations are addressed as complex systems operating in a condition characterized by a dynamic balance among the different elements which form them; the interpretation of their polysemic nature allows to identify the most suitable design procedures and intervention strategies to make stations the privileged places where to compose the conflicts between contemporary city and railway. Therefore, the purpose of this paper is to identify and to analyze crucial issues in order to build new liveable and effective developments. They refer, for instance, to the rail station configuration node and a meaningful and multifunctional city centre, but also to the detection of the most suitable tools and procedures to drive the urban and infrastructural transformations and to the proper involvement in the decision process of the different stakeholders who could be interested in these urban changes.

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Giovanni Brenna's Milan old map (1865) where first rail stations and lines are visible and located out of the town walls.

The analysis of the conflicts which are taking place around the main railway stations allows to identify the main needs which are expressed by the city and its inhabitants, like moving, meeting, living in a livable and inclusive space, and which find a synthesis in the stations. Furthermore, it could help in identifying strategies and actions to ease the tensions, which have been created in the course of time. As also deeply explained in the Volume 4, n. 1, march 2011 of this review, about the Italian case, since their birth in the XIX century, railways have been the structural framework on which modern European States were developed and they have been responsible for the main changes which quickly happened and which involved the European territory; their development has mainly aimed at the reduction of building costs and duration (Maggi 2001), rather than at paying attention to the effects generated by the infrastructure on the involved natural and urban

environment. The complex and critical situations that have emerged on the crossed territories are still intense, particularly in the main junction point between railway and city: the rail station.

At urban scale, the development of this new means of transportation caused the introduction of outstanding physical barriers inside the existent urban fabric: railways and stations, namely new urban facilities needing unusually huge spaces to carry out their many transportation duties. Many Italian authors (Pini *et al.* 1985; Ventura 1993; Pucci 1996; Ventura 2004; Viola 2004) have marked the evolution of the relationships between city and railway through three main phases which have followed one another in a more or less quickly way, according to urban dynamisms and to the dimensions of the involved cities. These phases have also generated physical, functional and social problems that the ordinary urban reorganization actions couldn't erase.

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City of Modena's growth (Italy) in the northern side of the railway, where the urban fabric is scarcely characterized and production activities takes up the most part of the areas.

During the first phase – called polarization – the station was a fulcrum of urban generation, characterized by great vitality, around which the city was structured. On one hand, this new urban equipment required a direct connection with the city centre, determining a quick filling process of the urban voids between these two centralities. On the other hand, the rapid development of rail traffic volumes required significant expansions, which often determined the demolition of the surrounding historic urban fabric and which consequently generated the first real conflicts between city and railway in the use of urban space.

After polarization, in which railway and stations were even more important elements for the city urban development, a new phase – called fracture – followed. In fact, rail infrastructure started to hinder urban growth, being a physical barrier between the old city and the more recent urban expansions that developed behind the station. Due to this barrier, the new parts of the city where characterized by scarcely structured urban fabrics, where industries or public housing neighborhoods with low building quality started to develop. During the post-war two, urban development crossed the railway barrier in a massive way; this generated a sort of fracture in the urban structure and the functional relationships inside the city were interrupted all along the rail line. This situation generated congestion and the segregation of poorer classes, which settled in the new low quality buildings behind the railway. Thus, after being a symbolic gateway facing the outside world, the station became a boundary element separating two different urban realities: with respect of station's main façade, they have been considered as "inside" and "outside", the "front" and the "back" or even the city and the "non-city" (Pini *et al.* 1985), one becoming almost the reciprocal of the other.

Then a new long phase started and the station progressively became a place where outstanding urban problems grew in intensity, like traffic congestion, generated by a general increase of transportation flows around the node and a difficult circulation near the lines, and urban degradation, due to a worsening of the liveability in the surrounding areas and a progressive abandonment by the original inhabitants, accompanied by the appearance and diffusion of criminal behaviours. Finally, the station became a symbol of all the main physical and social conflicts that involve

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contemporary cities. In the last decades, cities are trying to find remedies to all these problems by renewal interventions addressing the conditions of scarce liveability and poor urban quality of station areas, aiming at acquiring the strength of a holistic strategy capable to give new impulses to the renewal of the whole urban context.

Today, we are witnessing a new season in which European railway stations are regenerating themselves by means of a general technical renewal that permits them to put themselves up for being again a city strength and for catalyzing urban regeneration and revitalization processes. In other words, from junction ele-



The square opposite the Naples Central Station, as a symbol of various conflicts lived in the city, like insecurity, illegality, segregation, traffic congestion, low functional and physical quality of the urban environment.

ments of urban and transport realities, where the conflicts between city and rail infrastructure have revealed themselves with great intensity, stations have become complex systems where urban and transport elements necessarily have to interact in order to achieve a balanced asset, which nevertheless appears still fragile and continually evolving.

In this regard, we have to consider that the stations' new urban role is affected by two main conditions in the framework of a renewal process.

The first one is undoubtedly the establishment of improvement and modernization policies concerning railway infrastructures and services, which have encouraged, above all, the high speed trains development. Thanks to reorganization strategies of passengers and freights transports, railway companies begun a reshaping process involving the entire network and the nodes hierarchy, which is now giving back to the city wide areas in central locations. Although negotiation processes between railway companies and local governments sometimes end with exchanges that penalize local community, they enforce the feasibility of infrastructural transformations by providing the conditions that permit to finance the infrastructural and urban interventions on disused railway areas, making the station the driving force of these changes.

The second condition is represented by a consolidation of urban regeneration policies, necessarily based on a direct involvement of private sector in the city planning choices. Since the eighties, all over Europe, urban regeneration has been the main strategy to transform the city in order to ensure a sustainable urban development. Therefore, many experiences of urban and spatial renewal have progressively approached infrastructural issues and railway stations in particular, which have been more and more considered as strategic contexts for achieving a high competitiveness and a higher quality of spatial development.

In this new scenario, combining development expectations advanced by railway transport policies with current city needs is crucial to catch all the opportunities offered by the regeneration of railway station areas, which are represented by a general improvement of urban livability and therefore a mitigation of urban conflicts. Therefore, the starting point to build a new shared urban reality is linked not only to a reduction of the existing critical situations generated by railway infrastructures, but also to the expectations expressed by the people involved for different reasons in the railway node transformation.

Conflicts among involved players

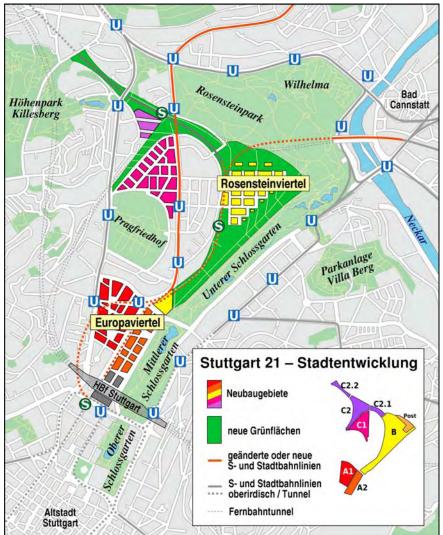
Conflicts, which are still widely rooted inside urban areas near railway infrastructures, can be ascribed to a uncoordinated – and also conflicting – planning between local government and railway companies.

As a matter of fact, bottlenecks and barriers generated by the development of railway networks near and inside the

city and the constraints to railway expansion and rationalization due to high density of urban fabric near stations and freight yards, can be considered as the outcomes of a lack in coordination between urban planning and railway development targets. Considering city and railway as two distinct realities, based on different rules and coexisting in the same space without sharing common development and cohabitation strategies has given birth to many urban and social conflicts.

Furthermore, recent rethinks about railway and city relationships (with special regard to the functions fulfilled by the stations) can generate further tensions due to different expectations that the main actors involved in or by the urban transformation express relating to the ongoing changes, in order to achieve new improvement opportunities.

Stuttgart 21 masterplan, concerning the reconversion of railway plots occupied by 17 railway lines converging on the existent Suttgart terminal. By laying the rail lines underground and building a new underground station, it provides new residential, commercial, services mixed-use areas and green zones.



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Today, the city itself, represented by local government institutions, and the main railway companies are the first actors involved in the renewal of railway stations and of the surrounding context and, once again, they express different priorities and sensibilities.

On one side, since the world war two, the railway companies have started a general reconfiguration of freights and passenger rail transport services which requires the reorganization of the railway network hierarchy, giving back to the city wide spaces in central areas. The areas, lines and, most of all, stations, which have been progressively dismantled, have become the financial driving force for the modernization interventions. For implementing these transformations, railway companies, for their part, have requested to the city to concentrate high density of service, business and commercial functions around the

> stations, which, as a consequence, have pushed away other less precious uses, like residential areas and shops.

> On the other hand, municipalities have to ensure that urban changes respect the local community interests. This means the pursuit of a better quality of life and of urban spaces, as well as environment and landscape protection: all these goals have found good answers through conversion and regeneration interventions, rather than through urban development in rural spaces. Therefore, during negotiation aiming at promoting regeneration measures in railway station areas, local governments have often assumed overmuch assertive behaviors towards railway companies and the main private investors involved in these urban changes. This allowed to maximize profits of few people, who are more used to manage financial aspects in such real estate operations, while compensations in favor of the local community were often marginal or not very improved. They concerned, for instance, the building of new facilities and urban services or the chance to promote mixed-use interventions in order to give new identity and urban quality to all the areas near the station. Then, if we deeply analyze the structure of many European railway companies, it is possible to identify conflicts also among the different parts of the same group. For instance, in Italy, there are at least four companies in Fs group, which are

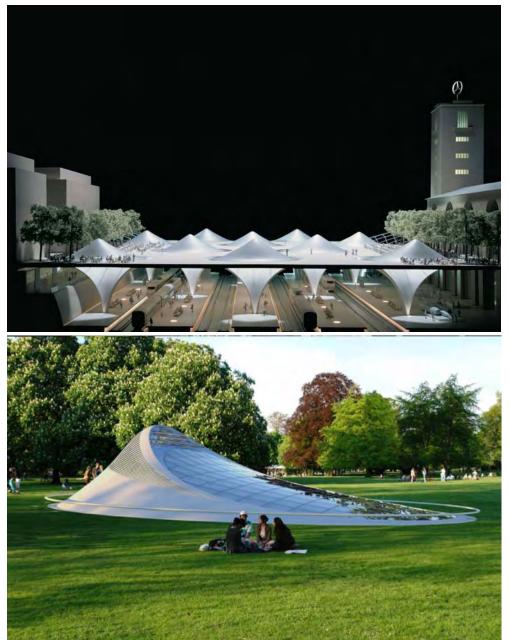
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directly involved in main historic stations redevelopments (Rfi, Tav, Grandi Stazioni and Fs Sistemi Urbani). Each company is interested to gain very different targets: Sistemi Urbani leads valorization policies over the conspicuous railway properties, made of disused areas and buildings, through their intro-duction on the market and their following functional transformation; Grandi Stazioni mainly works at building scale through the commercial valorization of the main stations' historic buildings, Tav leads only infrastructural strategies, while Rfi implements transportation policies mainly oriented to improve transport services.

Also local administrations often suffers from influences due to the existence of many planning levels: the redevelopment of an important station determines strong pressures not only from railway companies but also from the National Government, following the strategies about transports and economic development drawn by the different Ministries, not always according to a coherent and coordinated vision.

Furthermore, different de-

partments of the same Public



Stuttgart new railway station project. The new node will connect different railway lines converging in to each other and to surrounding urban space.

Authority could identify various priorities and changes, which sometimes are not compatible to each other (for instance, the decision to implement a mixed-use policy by means of introducing residential uses in the station's area that is generally affected by strong impacts like noise, low ground permeability, etc.).

As well as Municipalities, railway companies and main private developers, which are directly involved in the interventions on station areas, other players can hinder or foster the success of a railway node's plan and management processes, although they are not involved directly into those initiatives. They are the ones who will more directly undergo the effects of planning choices concerning the railway station and the surrounding areas: passengers and transport users, who expect that the station could efficiently sort passengers flows and give them good transport services, but also residents, small businessmen located near the station area, and new inhabitants, who are searching for livable environments with high quality services and facilities, since the great property values of these zone.

Then there are also local retailers, who could consider the location of new commercial functions in the station area as a strong source of competition; there are city-users, who



The new central hall of the Gare du Nord in Paris

daily or periodically might be attracted near the station by new precious functions, like business centers, universities, shopping malls, sport and cultural facilities.

Finally, we can't forget private developers operating in other redevelopment areas located in the same metropolitan context, who could suffer from great competition phenomena generated by the interventions on railway areas, which are able to affect the entire metropolitan real estate market.

Each actor, more or less involved in the changing processes of a railway area, aims at achieving its expectations and goals and it controls key resources to ensure the

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transformation's positive outcomes: when the redevelopment of a railway node acquires a high complexity and involves a great number of different stakeholders, the certainty of success of the entire operation decreases (Bertolini 2001).

Even, it could generate very sharp conflicts, which can often slow down or even stop the intervention. From this point of view, the events connected with the reshaping of the city's main railway node in Stuttgart are emblematic.

This ambitious project, supported by most of the local political parties and approved by each government level, foresees a radical reorganization of the infrastructural and urban systems of the city, in order to remove all bottlenecks and physical barriers generated by the railway near the terminal and to provide new spaces for green areas and mixeduse settlements.

Despite that, local community started an extremely hard protest against the elimination of a part of the historic public park near the station, the high costs of the intervention and the environmental impact during the construction phases. This protest could compromise the success of the entire intervention.

Towards a possible conflicts resolution

As already explained, the reorganisation of railway nodes generates changes which inevitably and significantly impact on the territory, giving raise to conflicts

that cannot be simply solved by means of compensative contributions. Instead, this reorganisation should be dealt by means of a general policy of aiming at preventing critical situations, where every involved actor should take on the needs and expectations concerning the nearest urban contexts and act inside a general framework of shared goals aiming at adopting those measures which better fulfil them. The complex nature of railway nodes needs to be addressed so as to reduce the existing urban tensions and the possible conflict situations deriving from the interactions between the different actors involved in the changes and use of these nodes.

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The Roma Termini Station hall. Nowadays this space is full of shops but originally it was designed to be completely empty.

Under this point of view, it is possible to identify some fundamental matters to be considered during the reorganisation of a big railway node and of its surroundings; they'll let selecting goals and procedures which will better permit to mediate between transport functional needs and urban regeneration requests, by means of a shared vision of the transformation process answering to more and more various requirements, deriving from the users who "live" in these important nodes in different ways, whether they are travellers, city users or inhabitants.

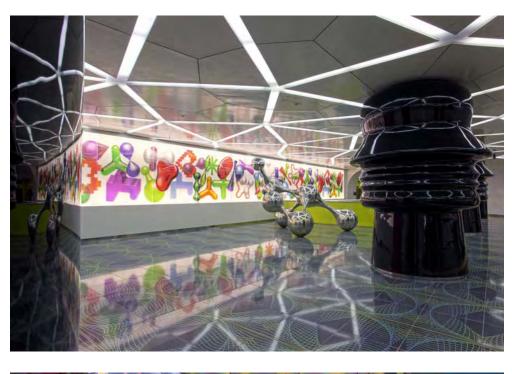
... between resting and moving needs

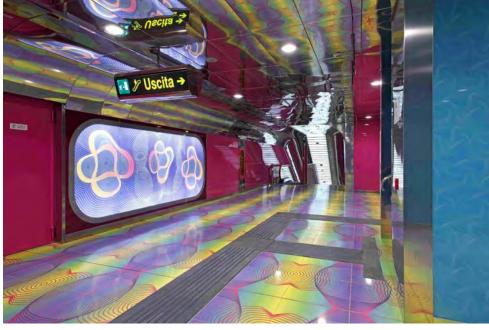
A first goal concerns the reductions of the present and future conflicts between the urban structure and the railway infrastructure, aiming at making the station both an efficient transport node and a significant urban place, where the needs of moving inside a nice and confortable space could be fully satisfied. This means reducing the breaks of load to the minimum by making it easy to change transport modes (be it private or public, motorized or pedestrian, etc.) in order to guarantee a seamless journey to the people going into the station for travelling.

The station spaces should also be provided with high aesthetic and formal value, avoiding the monotony and anonymousness that often characterize critical spaces such as underground passages or areas, footbridges, etc., and taking care of their design through the reinterpretation of the primary elements of urban space, i.e. squares and streets, to create an "urban effect" (Moretti, Pucci 1995). An interesting example is the Gare du Nord in Paris, where the connecting paths have been completely redesigned to guarantee the interchange efficiency; the central space, that is organised into four underground levels, has been covered by a transparent double shed structure, allowing a natural lightening and taking some of the elements of the urban space inside the station, by "continuing" the city in the underground.

In the railway nodes, the proper design of the internal and

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Interiors of the University underground station with Karim Rashid's art installations.

surrounding spaces should therefore be based upon the users' urban and travelling needs (Natalicchio 2002). The travellers arriving in the city should have the possibility to easily orient themselves and to understand where they are and how to move in the city; on the other hand, the leaving travellers should be accompanied by a sense of urbanity up to the platform, avoiding they could feel lost because of an inadequate paths organisation.

Similarly, the city inhabitants going to the station need to perceive it as the extension of the urban context in which

characterized by high concentrations of offices and service functions, nowadays the stations are more and more dedicated to retail activities, on the model of the shopping malls. The railroad companies address the provision of retail spaces as the way to lend urban quality to the station, thus forgetting that the enhancement of the static component of the travel makes sense only if the spaces and services for the travel are firstly guaranteed.

So, for instance, it is necessary to provide the travellers first of all with a lounge allowing to rest and with nice and

it is located, and not as an anonymous place completely detached from its surrounding area. This means the station should be redesigned as a seaming element between separated city zones through the design of continuous paths from/to the city.

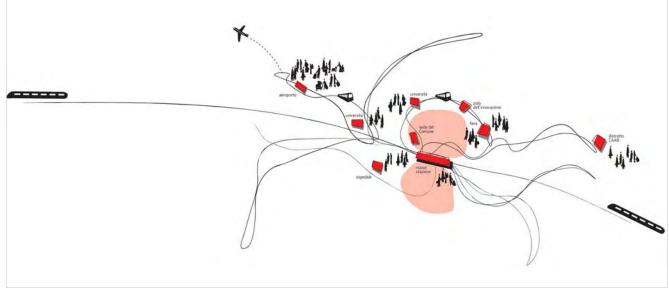
... between the railway network and the city

The second goal refers to the right interpretation of the role of the station as urban centrality; in fact, the station is not only an element of the infrastructural national and international network, but also a key node of the local mobility system, thanks to the enhancement of its accessibility.

By increasing the accessibility to the station, it is possible to strengthen its urban core; thus, the station becomes a lively and significant place, able to offer high quality services and spaces both for the travellers and for the city inhabitants.

Nevertheless, considering the recent regeneration interventions on the historical railway stations, it is possible to identify some unsolved questions. Leaving the style of the first interventions, which have been

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The strategic vision of the "city of the railroad" proposed by Bologna Local Structural Plan, where the station is the central pillar of a system connecting the main functional poles of the city: the exhibition district, the airport, the university.

safe spaces where to hold on and, second, with shops and entertainment places. Instead, the overburden of retail areas risks to create chaotic and dispersive spaces where rest areas are sacrificed, the passengers outbound travel loses in efficiency and the original functions of the space are distorted.

The station regeneration should therefore start from the needs of the users that, for different reasons, access the station. Therefore, it is necessary first of all to provide the station with the facilities for passengers, which improve the access and interchange among transport modes (ticket office open 24 hours a day, clear signs and signals, direct paths, etc.) and that make pleasant the resting time (lounges, luggage rooms, wifi services, etc.).

Only once the travel needs have been satisfied, it is possible to fulfil the inhabitants' needs and, more generally, the requirements of all the users that converge on the station. Subsequently, the station can host additional services, such as post offices, pharmacies, bookshops, bank and insurance offices, police stations, social services, etc., and it can become a public place where the needs of inhabitants and of travellers finally match.

In respect to this aspect, it is interesting to mention the restyling operation carried on Naples subway stations, which are becoming a sort of free museum system. The intervention, beyond giving new identity and quality to often anonymous places, makes the stations real cultural places, creating in the citizens a new sense of belonging and of respect, similarly to what happens for the historical and cultural assets.

... among social groups

There is a third theme to be considered aiming at making the railway station a place where to solve the conflicts generating inside it and in its surrounding context: the reduction of unsafe situations and of social decay. The scarce urban quality and ghettoization phenomena characterizing the surrounding areas are common problems for many historical railway stations, regardless of the transport rank of the node or the dimension of the served urban settlement, to the extent that the station in itself has become a point of reference for many socially excluded subjects. Recently, the consciousness of this problem has promoted actions both from the Public Administration and from Transport Companies, which have acknowledged their responsibilities towards the local community for what concerns the social distress typical of the railway stations and of the surrounding areas. The adopted policies refer both to design measures aiming at regenerating the urban context by means of improving the public space and reducing the unsafe situations and to social and security measures.

To this end, an interesting experience is the "European Charter to implement social initiatives at train stations", which was signed in 2008 by representatives from the FS railroad companies of Italy, SNCF of France, SNCB of Belgium and CFL of Luxembourg and which was subsequently adopted by many other European Railroad Companies. The Charter aims at linking security and social solidarity policies, through the cooperation with local authorities and associations in managing the problem of social distress in the stations areas, by assisting needy people and by taking

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them to specialized centres where to help them towards social and working integration paths.

The cooperation between local administrations and railroad companies has progressed by involving also the local communities in the implementation of strategies basing on social – formal or informal – control to discourage criminal behaviours or acts of vandalism. This approach refers to the American Com-munity Action's theories (Marris *et al.* 1967), which suggests simple methods to organize the local community and to cooperate with the police, the schools, the volunteers groups, etc.

To contrast the social and physical degradation of the station areas, the citizens, aiming at making the station a new meeting place for the neighbourhood, have promoted many initiatives. An interesting example is the event promoted by Reggio Emilia Municipality in 2008, which is called "1, 6, 7, contatto!" [1, 6, 7, contact!] form the name of the three involved districts.

The proposal, which has been drawn by the inhabitants of the historical station district, has involved many associations and schools to enhance urban regeneration and urban security improvements basing on the principles of the living together, the rules respect and on a new civic identity and civic responsibility.

... among the involved actors

A further question is the definition of procedures allowing the setting of balanced and shared regeneration policies that should consider the expectations of every involved actor and that should fully implement the node potential. The adopted policies and tools must be able to interpret the station through an integrated vision and to jointly manage the transformation, by considering their effects at every scale and by enhancing discussion and negotiation among the involved actors, though avoiding complying with the pressures deriving from speculative interests, which could be attracted by the big infrastructural nodes.

Since the seventies, the interventions on the railway stations have been leaded through negotiating tools, which guarantee a higher feasibility by involving private funding and by overcoming the competence fragmentations in the Public Administration.

On one hand, this new planning procedures permit a wider participation to the choices concerning the urban change started by the railway station transformation; on the other hand, it could give to the big speculative interests the possibility to predominate over the Public Administration and the weak actors of the process.

Therefore, these negotiations process should be combined with citizens' participation for selecting the needs to be

addressed by the regeneration; furthermore, architectural competitions would guarantee a more transparent interaction and a higher design quality, thus raising the benefit for the community.

... between the infrastructural project and the urban plan

Finally, it is important to rethink the role of the railway station through a unitary plan vision, which could balance urban strategies with infrastructural projects and local mobility policies.

At present, the interventions on the main European stations are still generating impacts, which cannot simply be eliminated by means of compensations. A pre-emptive policy is therefore necessary, aiming at avoiding criticalities through the adoption of planning tools able to manage the questions raising form the transformation within a unitary and general framework.

In regards to this aspect, it is interesting to mention the case of Bologna railway station (a strategic hub at national level which is preparing to host high speed rails), where the project for the railroad node improvement has been integrated into the urban development strategy carried on by the local structure plan, thus guaranteeing the coherence between the transport rank of the station and the metropolitan dimension of the city and enhancing the effects of the regeneration.

In fact, thanks to the railroad development, it is possible to overcome the historical break between the workers' neighbourhood behind the station and the rest of the city. By planning the development of residential, retail and administrative functions in this run down area of the city (the Municipality seat has been located there too) a sort of "doubling" of central area of the city can be obtained, generating a new core of the city activities and eliminating the social and physical degradation phenomena affecting this area.

Conclusions

Nowadays, the station can take again the role of attracting element they had in the first stage of the railroad development, and it can become a new city gate not only towards the outside world but also towards the inner parts of the city.

In fact, the redevelopment of the space around and in the station allows to reduce the overall travel time and to improve the accessibility; at the same time, it contributes to the regeneration of wide parts of the surrounding urban context and to the reduction of environmental impacts, thanks to the creation of high density and mixed land-use



nodes, which are served by high quality public transport lines and which can contrast urban sprawl and land consumption.

The regeneration policies involving the railway stations directly address the social and urban criticalities affecting the surrounding areas and create new urban environments, which are more liveable, efficient and desirable; nevertheless, because of the general economic and financial crisis these big transformations, requiring large amount of money, could come to a halt. So that the railway station could fully accomplish its role in composing urban conflicts, it's necessary that the Public Administration clearly identify the stations as a priority where to direct human and financial resources.

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