The project to remove the railway from the surface of the city of Valladolid and take it underground

Success or failure of the urban remodelling process seen through city planning documents

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Abstract

The idea of constructing a tunnel for the railway under the city of Valladolid, Spain, has been under discussion since the 1980s. This possibility was considered through various studies, three different project competitions and several urban master plans. Thus, the division of the city by the railway into two areas would be resolved, the traditionally richest area, which included the historic centre and the most elegant neighbourhoods, and the first poorer periphery. Various officially approved plans were created to carry out the project according to the proposition of Richard Rogers. However, the deficient design of the operation and the economic crisis made the construction of the tunnel impossible as the expected from the sale of the land occupied by the railway, 13 years after the approval of the project have not materialized. Many of these events have been set out in various city planning proposals. The latest stage in this ambitions project was the cancelation of the construction of the tunnel and important investment in consolidating the current railway on the surface; more precisely the improvement in underground pedestrian crossings. Yet the story is far from over. At present, the discordant voices have been called for the tunnel project to be revived, so the dilemma is once more undecided. Party politics and financial question are seen to have a greater weight than technical reports from experts.

Keywords

Urban transformation, High Speed Train, urban remodelling, urban modernization, transformations of city planning

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Fig. 1. Level crossing in the neighborhood of La Pilarica in the 90s.

INTRODUCTION

More can be learnt from failure than from success, which is why errors committed must be analysed in depth. The example of Valladolid is an extraordinarily rich and eloquent case concerning mistakes made and opportunities lost in the city planning sphere.

The arrival of the high speed railway was seen, in many Spanish cities, as an opportunity for the city to improve; not only through new infrastructures, but also through the economic expectations that arose for the citizens, as had occurred a century and a half before with the arrival of the railways. The problem is that these expectations did not materialise because of the mistakes made in numerous fields, particularly in the field of city planning.

In fact, the high speed railway is a means of transport that transforms cities, as has already happened with the arrival of steam trains to mediaeval cities. In particular if we take into account the location of most new or reformed railway stations in the city centres, reinforcing the central nature that most old stations had acquired over a century and a half. Their recent introduction demonstrates the characteristics of the urbanisation process in Spain's cities. This process of reinforcing the centrality of the high speed railway has taken place at the same time as the appearance of many ring roads that favour the urban sprawl towards surrounding municipalities. On the one hand, we can see the extensive nature of the new city which sends certain uses out to the periphery, while at the same time there is a greater concentration-polarisation with the high speed train, reinforcing the most profitable uses in the centre and generating important processes of metropolisation[1].

HIGH SPEED AND PUTTING THE RAILWAY UNDERGROUND

Many Spanish cities began grandiose railway projects at the start of this century and many are still immersed in the transformation processes of their railway infrastructures. Most of these processes possess the following elements: reform and improvement of the rail network, putting the railway line underground to pass through the city and the urban transformation of the then unused land. Most of these projects are characterised by digging tunnels of a few kilometres below the city centre; the best known being those of Madrid, joining Atocha to Chamartín and the Pasillo Verde[2] The first to be built was that of Cordoba, with the construction of the first stage of the Madrid-Seville AVE. It should be remembered that this line was constructed for the World Expo of Seville in 1992 (EXPO 92) and that it had an enormous amount of State funding.

Even from the first example, there are many coincidences in the ingredients that are common to later projects carried out in Spain: in Cordoba, there is an operation to deal with the restructuring of the city's railway network, after which land is left vacant and can be sold as land for building with important capital gains. These land plots played a vital role in the operation, as the funding partly came from the land sales that accompanied the urban operation of constructing the new station. As this worked as a model, it was used as the formula to create a commercial enterprise in each city, the so-called Commercial Integration Societies (Sociedades de Integración Mercantil or SIF), with the participation of several organisms: the Ministry of Public Works (ADIF, RENFE), the Regional Government and City Council of each city. Thus, thirteen Spanish cities took on this model in the first two decades of the twenty-first century[3]. In the end, only one (Zaragoza, with 97.08% of the work completed) has almost completely finished the programme, while the rest have low, or very low, percentages of completion, as the average is 26.84%. In the case of Valladolid, the figure is 38.77%[4]. The increased costs are also important, the average being 142.95%, and in the case of Valladolid it is 117.12%[5].

THE CASE OF VALLADOLID

In the city of Valladolid[6], the announcement of the arrival of the High Speed Train brought a wave of planning proposals and high expectations on the part of the citizens. First of all, it was necessary to deal with the transformation of large areas of land belonging to the railways that had lain unused for some time. Secondly, a debate began concerning the possibility of creating a tunnel under the city for the railway line. The result was a proposal to put the railway station underground and to transfer the bus station to the same site, thus creating a transport hub for travellers. The opportunity that the arrival of the High Speed Train (AVE) provided, thus allowed consideration of the projects that would enable the necessary work to transform Valladolid's rail network and its integration with the city, as well as the urban development of the land freed following the creation of the tunnel for the railway. This renovation, including the tunnelling project, is an extraordinary example from which we can clearly see the difficulties of carrying out operations of such a magnitude in cities.

THE FIRST IDEAS FOR RENOVATING THE LAND OCCUPIED BY THE RAILWAY AND THE CONSTRUCTION OF THE TUNNEL TO SEND THE RAILWAY LINE UNDERGROUND

The General Urban Plan of 1984 (PGOU-1984), the first urban plan of the democratic era, dealt with the subject of the railway in the city among other matters. The effort made by the team that drafted the plan to consult the population concerning city planning decisions brought to light, among other topics, the citizens' discontent in many residential areas with the railway: the bad quality of access between one side and the other of the railway line, the danger of the pedestrian underpasses, the problems of the level crossings, the insalubrity of the verges, the neglect of the residual areas, occupied as uncontrolled parking areas, the harshness of the containing walls that formed an ugly barrier[7].

PGOU-1997

The PGOU-1997 swung between the two possible alternatives that were being discussed at that moment: the demanded improvement to the areas immediately bordering the railway and the question of access to residential areas through pedestrian underpasses or overpasses, or putting the railway line itself underground. In the "Memoria" of the PGOU-1997, it is stated that the plan aims to systematize "access between residential areas on opposing sides of the railway line, though any intervention in this sense must be closely linked to the final alternative adopted with respect to the railway's passage through the city. The approved criterion has been to: 'Propitiate the railway tunnel while not discarding any measure that, in the short term, would allow greater accessibility and improvement of the borders ...'". These dual possibilities, integration or tunnelling, which were on the table for a long time, made the interventions over the following twenty years much more difficult; interventions which would slowly improve the areas surrounding the railway, but which remained frozen.

During these years, little by little, the transformation was taking place towards urban planning through different partial projects concerning the railways operation as a whole, including the tunnelling. In the PGOU-1997, a series of interventions were proposed to guarantee accessibility between residential areas on both sides of the railway line, so the tunnelling and the pedestrian underpasses existed side by side. Prudence was the principal measure, since the timeline for the tunnel was exceedingly long and there was an urgent need to resolve the problems of accessibility. Nevertheless, of the many measures programmed, only those of the new overpasses linked to the construction of the new southern ring road, which had just entered into service, were materialized.

The PGOU-1997 proposed definitions of the diverse railway infrastructures involved, through the development of the Special Plan, the drafting of which was delayed throughout the entire period of the Plan's term of validity. The interventions to be carried out through the said Plan were the following:

- Construction of a by-pass for freight trains.
- Remodelling of the existing railway installations, some functioning and others in disuse for many years (La Esperanza Station, Campo Grande Station, Central Repair Workshops, Railway Corridor).

THE "CONVENIO 2003" (THE AGREEMENT OF 2003)

An agreement was signed by the President of the Regional Government of Castile & Leon, the Minister for Development of the Central Government, the Mayor of Valladolid and the Presidents of RENFE and GIF on 6 November 2002. The said agreement was officially published in the BOE, the official state bulletin, in January 2003[8].

Its main expression was the creation of the enterprise "Valladolid Alta Velocidad 2003 S.A. (VAV)"[9]. The agreement stated the necessary reform of the unused lands belonging to the railway, took urgent decisions to make way for the high speed railway line, and agreed to tunnel 5.5 kilometres under the city. The agreement sets out the interventions to be carried out:

- The construction of an eastern branch of the railway around Valladolid with Iberian width, with the creation of a Railway Complex with access to the international width.
- Repositioning of the Central Repairs Workshop (TCR) from Campo Grande and a new freight station to replace that of Argales in the new Railway Complex.
- The construction of a new CTT in the Railway Complex[10].
- The construction of a double high speed line with international width along the current path, which would go underground, between the point where the railway crosses Daniel del Olmo street in the south and the VA-100 ring road to the north, to facilitate the permeation of the route.
- The use of the University station, being transferred so as to remain overground.
- The construction of a new bus station in Campo Grande, depending on the Regional Government and the City Council, to replace the current one in Puente Colgante street.

The City Council commits itself to ceding the corresponding municipal rights to build in order to cover the investments made.

THE CITY COUNCIL'S DOUBTS AND HESITANCE

The development of the project in the hands of the City Council is not surprising. The City Council did not hold the majority of the shares in the VAV enterprise, while the weight of the 'Grupo Fomento' was double that of the municipality. Once the decision had been made to create the tunnel, it would seem that the process was dealt with directly by the VAV, with a single municipal interlocutor, namely the Mayor, with the assistance of a small number of collaborators. In this context of little to no information, a series of erratic interventions took place that demonstrate the insecurity with which the first steps are taken, as well as the lack of clear ideas on the part of the Mayor's group. First of all, there was a new call for ideas concerning the land that would be freed by putting the railway underground, repeating the topic that had been dealt with in the competition, some years before, organized by the College of Architects. Secondly, another competition for projects is held, which is won by Ricardo Bofill. Having signed the Convenio2003, it would seem that the management of the project was heading in one particular direction. However, a further competition was held, this time restricted, which was won by the well-known team of Richard Rogers. All these competitions demonstrate the about turns that the team of the municipal council are making. It can then be deduced that there were many difficulties to reach an agreement between the four members

of the VAV enterprise. Clearly, there was a distinct lack of clarity of ideas, much confusion and contradictions, with steps being taken forwards and backwards.

THE EXPRESSION OF THE FIRST PROJECTS - THE DIFFICULTY OF TRANSFORMING THE CITY COUNCIL'S PLANS INTO URBAN PLANNING: PGOU 2003.

The PGOU-2003 clearly takes on board the tunnel for the railway. It could not be otherwise, since the agreement to make the tunnel had been signed the previous year, in 2002, and had been made public in 2003.

The PGOU-2003 report refers to the improvements in the city of Valladolid through the ambitious urban projects, most of which had only been announced or begun but not finished. This had given rise to important public and private investments: the report mentions the Ring Roads, the new Waste Water Treatment Plant, the cultural facilities such as the Museum of Contemporary Art, and the improvements in the airport. Yet top of the list is the tunnel for the railway under the city and the arrival of the high speed train[11].

The PGOU-2003 modifies, little by little, the previous plan, adapting it to the day-to-day decisions. The plans are drawn including the first outlines of the tunnel, marking the land to be occupied by the by-pass, setting out the limits for the area where the freight station of La Esperanza and the TCR will be situated[12].

For the City Council, the most valuable asset is the tunnel: "The second milestone is the railway tunnel. The creation of an urban street where the railway currently runs will reduce the pressure on the main arteries of the surrounding area, turning them into local streets instead of major thoroughfares. It will also eliminate the bottlenecks that occur in the roads currently running under the railway and will provide a new north-south axis of the city connecting the residential areas as a support for the exterior position of the ring roads"[13].

Fig. 2. The railway and the divided city

Fig. 3. Site area: Comparative scale. From the Richard Rogers Plan.

The other essential aspect in the PGOU-2003 is the gigantic new urban growth land classification around the outskirts of the city, with the so-called Homogeneous Areas. This made the transformation of 3,400 hectares from rural to urban land and the construction of 238,000 new houses possible. It would mean, if all those houses were built, an increase of 171% in the city's housing stock[14]. This would defy all logic, if the population growth and the migratory movements for the city in previous years were taken into account.

CAPITAL GAINS AND BUILDING RIGHTS AS A WAY TO FINANCE THE WORKS

Funding the work through capital gains was clearly expressed in several documents from that time; and that idea was always accompanied by another, that the works would not cost the taxpayer a single euro. The first agreement stated that the arrival of the AVE to the city of Valladolid was an opportunity to place a value on the lands of the railway, and this would generate a great amount of capital gains[15]. The argument used in the official documents to justify the use of capital gains to fund the works was very imprecise: there was no explanation of the source of such capital gains, they simply existed; neither was there any explanation of the amount of the said capital gains. There was no economic calculation analysing in detail the capital gains of each plot of land. What is clear is that the 'Grupo Fomento' (ADIF & RENFE), who owned the plots, took over the ownership of the said capital gains and would use them to carry out the transformation of the Railways Network. What is even stranger is that, as the works of the VAV

enterprise would benefit the municipality, the City Council will cede to the said Enterprise the corresponding urban use[16]. The question is that the investment in railway infrastructures would seemingly generate capital gains that would equal the investment made, and the agency or entity that constructs the said infrastructures would apparently have the right to obtain the money invested by taking ownership of the said capital gains. There would be no deficit in the operation, only a surplus is contemplated, a surplus which would be invested in improving the railway[17].

In order to materialize the capital gains of some plots, such as those of the Workshops, it was necessary to transfer the industrial repair activity and, to do so, the future capital gains were needed. The problem was that the money for the transfer was needed immediately, while the capital gains from the land occupied by the Workshops could only be materialized when the plot of land was empty. In principle, it seems simple to solve through credit from a bank. Yet this problem was not dealt with in the agreements; no-one wanted to see it, but it was an element that would contribute to making the situation more difficult. On the other hand, the Workshops were still functioning, so there were negotiations prior to the transfer between the various parts and agreements had to be made with the workers.

There is no accounting of the capital gains generated, neither how much, where, or why, to indicate which of them came from investments or improvements in the railway line, or which came from the work of the citizens of Valladolid or the private capital investments in industry or commerce over more than a century and a half. There are no details about the capital gains that could be materialized in the short term, as the plots of land had no current activity or the capital gains that could only be realized following the transfer, in the long term. There is a certain naivety in the arguments, as no conditions are imposed on the materialization of these capital gains; as if the only condition were to collect them, as if they could be harvested at any time or place, as if they were limitless. What is absurd about this argumentation is that the capital gains, in the end, were finally authorized (not materialized) by the City Council with building rights that the Council awarded through city planning. In this case, the maximum building permission was awarded, the maximum permitted by the Urban Development Law of Castile & Leon, 1 m2/m2. So the said building rights, instead of depending on the conditions of the urban network (the area's building typology, type of streets, orientation, historical era of building, current problems, etc.), they were linked to the future investments that would be made and to the debt contracted by the entity that was to pay for the infrastructures.

In the case of the bus station, the idea was to build a new one underground, to be undertaken by the Regional Government of Castile & Leon, at a new site not needed for the railway. The demolition of the old bus station and the construction of the new one would be paid for by taking advantage of the rights to build allocated to the land left vacant from the old bus station. It was understood that these rights would be sufficiently high as to be able to award uses depending on the type of work projected, the materials or the land area that the new bus station would occupy, instead of depending on the quantity of residential buildings the urban network would be able to contain. The building conditions for the future housing depended

on how the new bus station was to be constructed. If the housing density figures from this operation were exaggerated and, consequently, the resulting quality of the residential urban space was to be reduced or simply to become dysfunctional, this did not matter. The waste of energy that occurred with this intervention was not considered either.

Consequently, with such ideas, the Economic Funding Study of the PGOU-2003 did not contemplate any amount dedicated to the tunnelling or the transformation of the railway network. According to this document, the tunnel did not require funding, since the total amount of the expenditure would be funded by the sale of the land. Not even the amount of interest to be paid for the credit was contemplated; a situation very far from reality.

THE ROGERS PLAN

The team to write the draft of the special plan was chosen by means of a new restricted architectural competition by invitation only. It was called the Plan Rogers as it was finally awarded to a team that included the famous architect Richard Rogers. Other participants in that team were IDOM and Vidal & Associates Architects[18].

The Plan Rogers is a serious piece of work and, in general, thorough. However, the problem mainly lay in two questions that would lead to failure: the optimistic economic forecasts and the foreseen timetable for carrying out the work. According to the Law, the plans had to be justified in a document, called the Economic Funding Study, setting out the economic viability of the works, the costs and the sources of funding. It is a legal obligation and the Plan Rogers effectively complies with this obligation and has such a study. The central idea of the Plan repeated what said before, to use the land no longer needed by the railway to construct houses, shops, office buildings and other constructions, the sale of the old railway plots, now dedicated to other lucrative uses had a detailed plan of stages that marked out a rhythm for income and expenditure, as the works progressed.

The first problem was the high value given to the real estate products to be sold in the future. The repercussion value of free housing was fixed at 1,300 Euros/m2, and for VPO (protected council purchases) 300 Euros/m2. The high value stated was completely unrealistic and was based on calculations from a market that was then greatly overestimated, supposing a progressive upward trend. It was considered that the land freed by the railway tunnel and in particular by the Workshops of RENFE would turn into a new urban centre and, thus, they were attributed the same values that at that moment were assigned to the most expensive areas of the city.

Proof of the unrealistic valuation of the land is the calculation that was done some years later. In the Economic Funding Study of the PGOU-2020, a calculation was made of the repercussion values for the different uses. In the case of free housing, the value was 393 Euros/m2, and for VPO 315 Euros/m2. These figures are quite different and more realistic than those set out in the Plan Rogers[19].

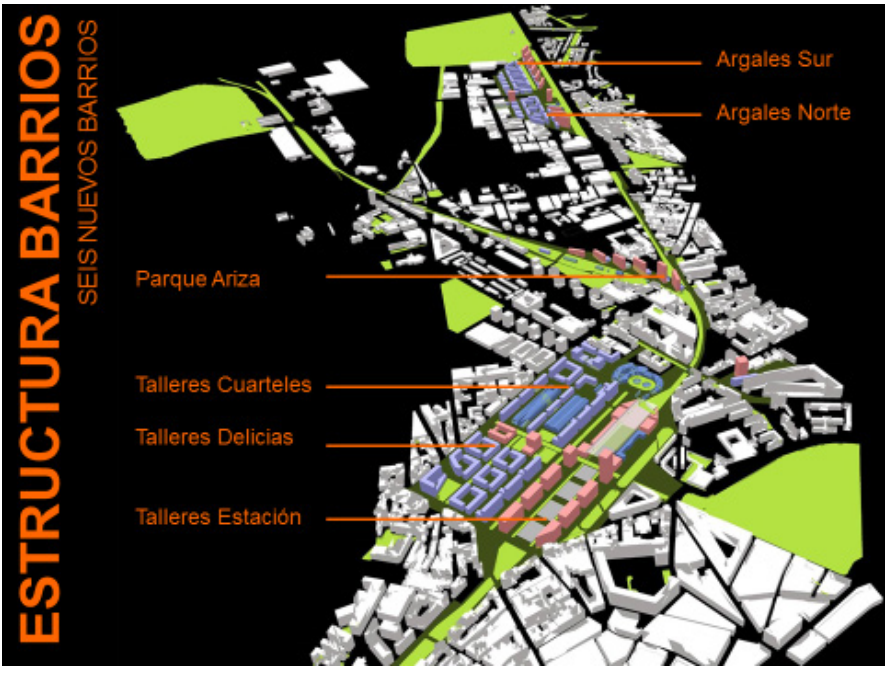

Fig. 4. Image from the Richard Rogers Project

The second problem was the Plan of Stages[20]. It must be said that the timetable for the works was greatly conditioned by the terms of the Agreement of 2003, which had a clause stating that all the economic resources obtained by the Enterprise should be used first of all for the works on the railways, with the following order of priority: the East Variant, repositioning the Railway Workshops of the TCR, the construction of a new Freight Station and a new CTT, the tunnel and transversal accessibility; then, after all that had been concluded, work could then start on building on the newly freed land[21]. Not surprisingly, not one plot of land was sold because, in addition to the economic crisis, the timetable for carrying out the work on the railway was delayed, without any date being set for building on the freed land. Even today, these plots of land are still not manageable from the point of view of urban planning and cannot be built on; with such a situation, no entrepreneur or investor would buy the plots. The Plan Rogers contains an essential contradiction in the Plan of Stages: it clearly establishes the possibility of selling plots from the start of the operation, while also establishing that the urbanization that would allow the commercialization of the said plots separately would be carried out at the end of the process, after having completed all the work on the railway. Thus, we have that, according to the Plan Rogers, the first plots sold would bring in 35.41 million Euros in 2007, while the urbanization works on the Intervention Unit nº 1 would finish in 2010. Intervention Units 2 and 3 would finish in 2013 while 4 and 5 would be completed in 2015, one year after having supposedly sold all the plots. We have to conclude that when, in the Plan of Stages, they use the term "Optimistic Tendency Scenario", we are seeing a veiled criticism by the draft writers of the judgments of the Enterprise "Valladolid Alta Velocidad-2003 S.A.". In effect,

when the Plan of Stages is qualified as "optimistic", this means that the team had worked with another pessimistic scenario, that another one in between was also elaborated, and it was this third one that the team would have chosen (if not because there were municipal elections in 2015, so such a circumstance determined that the Plan of Stages should be "optimistic").

Unfortunately, the plan failed completely. It is sufficient to say that, according to the Plan of Stages of the Plan Rogers, on 31 December 2014, all the plots of land should have been sold, so that at that time the amount of 708 million Euros would be available in the accounts of the Enterprise VAV. Nevertheless, when the new corporation took up office following the elections of 2015, not one square meter of land had been sold[22]. So, instead of a surplus of 80.2 million Euros, as forecast, there was a debt of 404 million Euros. Furthermore, much of the work on the railway had been stopped and the timetable had not been kept to at all. For instance, the by-pass was not finished, although it should have been completed in 2010, four years before, while the tunnel had not even been started, although it should have been ready in 2012, three years before[23].

THE ECONOMIC CRISIS AND THE COMFORT LETTER

The economic crisis that started in 2008 hit these provisions hard and signified the end of the Plan of Stages. The lack of funding caused the Consortium to fall into debt much more than even the most pessimistic had envisaged[24]. Obviously, according to the opinion of some, the financial difficulties of the operation were hidden from the Corporation and the citizens, with no information being given concerning the steps taken to obtain the loans; what is more, the Mayor assumed competences he did not have to increase the amount of the loans. In fact, the banks that had lent money to the Enterprise VAV demanded a document called the "comfort letter". This was to guarantee the payments of the loans and the document was signed by the Mayor, successively, in 2008, 2010 and 2011, so as to obtain the necessary funding up to a maximum of 400 million Euros. The "comfort letter" signed by the Mayor accepting the loan should have been agreed by the City Council, while the Council's comptroller and the Regional Government should have been informed. Such conduct was taken to court and the Mayor was finally not guilty, following his justification of ignorance of the legal procedures in these cases. Nevertheless, innocent or guilty, many people held the opinion that the Mayor had not wished to inform the Council or the citizens of the difficulties. To make such problems public would have been to recognize failure just a few months before the elections of 2011[25].

In other Spanish cities, some projects of the same type built by ADIF in the same years were affected by the economic crisis; one example being the construction of the high speed railway tunnel between the Barcelona stations of Sants and La Sagrera[26]. The tunnel had an initial cost of 179.3 million Euros and a length of 5.64 Km[27]. The final cost was 236 million Euros, due to the lack of any consideration of the risks and problems derived from the route and the use of important safety measures to consolidate the land beneath such singular buildings as the 'Sagrada Familia' (Church of the Holy Family) or the Fang Tower[28].

THE (UN)REALITY OF THE REAL ESTATE BUSINESS

What is true is that the investors had concentrated on other areas of the City of Valladolid and the surrounding municipalities. In the PGOU-2003, the so-called Homogeneous Areas had been classified; large rural areas, most situated outside the ring roads, with a huge supply of future housing. The construction of around 60,000 new houses was authorized, most of them of low density together with shopping malls, industry and other uses. This resulted in the transformation of 3,400 hectares of rural farmland into urban land. Then began a long legal battle against the City Council by Ecologistas en Acción, in which they won numerous cases brought against the Council. For over ten years, more and more sentences appeared against the City Council's plan and the courts cancelled most of the Homogeneous Areas. Not only were they declared null and void, but later demands for compensation for the economic losses suffered by the investors were also thrown out. The surrealism of the municipal city planning and the investors became clear during this long legal battle. It also explained the investors' rejection of other areas that were apparently less profitable[29]. At the same time, there arose within Spanish society much criticism of wastefulness in infrastructures, which is certainly not an exclusively Spanish phenomenon, but the economic crisis put the lack of any social return of many recent projects in the spotlight of public opinion and showed that it is not enough to invest in infrastructure such as high-speed rail to obtain economic development[30].

THE NEW "CONVENIO 2017" (AGREEMENT 2017)

The new Corporation that emerged after the municipal elections of 2015, seeing the financial problems that existed, at first proposed sending the High Speed Society into bankruptcy, considering the large amount of the debt and the lack of resources to pay them all in the short term[31]. Later, following a long period of reflection, the new Corporation reviewed the records of the VAV Enterprise and made several changes, which were set out in the new Agreement signed in 2017: the most important change was to renounce the tunnel for the integration works of the railway in the city, which were clearly cheaper. A new Plan of Stages was established projecting work until 2033; the secrecy was ended with the publication of reports concerning and agreements with the VAV, such as the situation of the works, the economic study of the land valuations or the renegotiation of the debt, among others.

THE NEW IDEAS FOR INTEGRATION THROUGH A SKETCH

The plans of the City Council for the integration were initially published in the local press, where the interventions were summarized: it consists of 17 interventions providing around twenty underpasses; the railway traffic will be reduced, with only passenger trains crossing the city, sending the freight trains around the by-pass; the number of tracks and the space the railway occupies would be reduced to make way for cycle-lanes on both sides; and the pedestrian underpasses would be improved, establishing systems to eliminate blind areas; the retaining walls would be completely replaced with light fences that can be seen through[32].

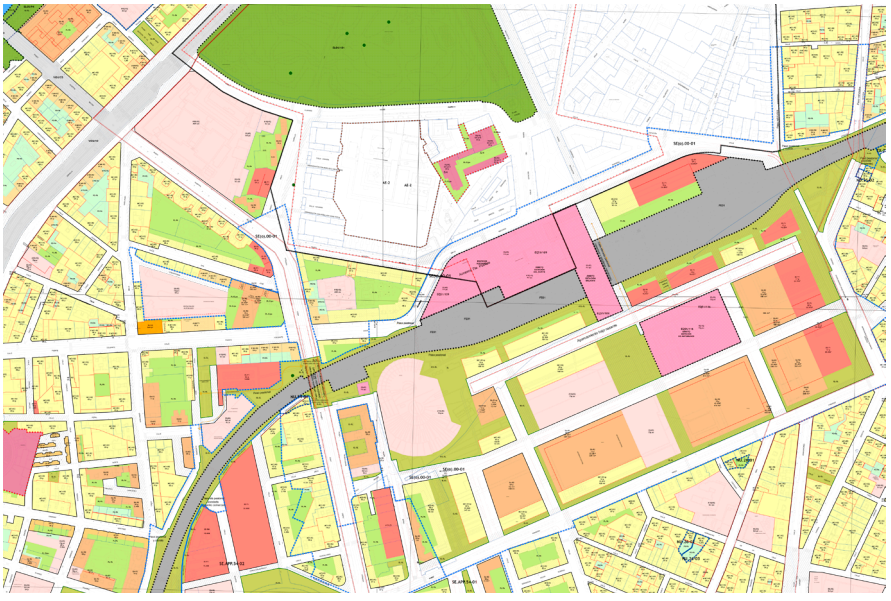

Fig. 5. Fragment of the PGOU-2020, in which it is possible to see the planning for the central plot of land following, with only small changes, the planning established by the Plan Rogers.

THE PGOU-2020 AND THE PLAN ROGERS

Three years after these first ideas, the new PGOU-2020 was approved. It included what was the Plan Rogers in a new planning figure, the SE(o).00-01, a detailed sector plan[33].

The PGOU-2020 follows quite faithfully the proposals of the Plan Rogers, and it is included in the new documentation, but with corrections, some of them quite deep; thus a new development plan was not necessary, as the existing one had been carried out at the time. Nevertheless, there are differences: the first is that there is now no tunnel and it replaced by the so-called "integration of the railway in the city"; the most important point being the new underpasses for both cars and pedestrians that appear sketched out in the Urban Plans at a scale of 1/1000.

The most important changes in the building work come with the maximum heights, the urban form and the mixture of typologies[34]. It is worth noting that, in the definitive approval of the PGOU-2020, the building potential of the Urban Unit was modified[35], passing from 1 m2/m2 to 0.80 m2/m2. This reduction was made on accepting the allegations received during the period of public information and could be interpreted as a consequence of the reduction in costs due to the suppression of the tunnel: fewer costs, less building potential. This 20% reduction in the building potential due to the suppression of the tunnel confirms the fact that the tunnel was only a small part of the entire operation, even though it had attracted most of the attention during the many debates.

THE URBAN PROJECT

The transformation of the old railway infrastructure and the insertion of other new infrastructures in the urban fabric are extremely complex. It is not solely a question of the railways; it is necessary to take into account the fact that, in the end, it is a question of creating a high quality city. It is necessary to create neighbourhoods that work, which can be lived in, and which are internally structured and well connected to the neighbourhoods around them. These mixed railway projects, as they were formulated from the start, are prey to economic and political tensions, as well as time restraints, arising from the accounts of the railway operation, that influence a bad urban result or the impossibility of reaching any result. It is necessary to break the economic logic that leads to the concentration of a great development potential in the plots of land in the city centres, simply because there the repercussions of the value of the land in such areas is so great. The historic urban fabric of cities is extremely fragile and the appearance of very large buildings on enormous plots and compositions that are far distant from their surroundings can break the balance of the whole. These operations are carried out on a grand economic scale and often end up breaking the area's own urban scale. The great Spanish railway company acts as a giant that imposes a scale of urban interventions on small cities. Not only is the urban scale broken, it even overwhelms the economic capacity of the citizens and local development agents[36].

It is necessary to partition the project so it can be manageable on the basis of the city's logic in order to respect the characteristics of the urban space; the great urban intervention has to be split up into small projects that can be dealt with on a small scale; in the economic sphere, it is necessary to make the costs adequate for the size of the economy of the citizens and local enterprises in the sector and to harmonise with the existing market.

CONCLUSIONS

The operation, the so-called railway tunnelling in Valladolid, is primarily a set of projects with serious consequences for city planning that significantly restructure and change the railway system in the city over 25 years, modifying the use of large areas of the urban centre. The visible part that has been working on the citizens' collective imagination is the promise to put the railway line underground. However, accompanying this so far unrealized project is a number of operations that affect the remodelling of the city's central areas and the construction of large infrastructures.

The institutions that have participated in the design of the entire set of operations based the funding of the works on the creation of building rights, without considering what was most advantageous for the city while ignoring the foreseeable behaviour of investors and the reality of the housing market, which inevitably led to delays within the project.

Everything would seem to indicate, at least in the aspect of the financial calculations, that those drawing up the draft for the urban projects took on board the accounts of the City Council, probably forced by the demands of the contractor and the circumstances of the contract,

without any kind of criticism. Certainly, the City Council itself established the calculations concerning income, expenditure and the timetable as being "untouchable". In any case, it should be pointed out that there was no criticism whatsoever of these figures in the planning documents. At most, there is a veiled doubt expressed in the Plan of Stages of the Plan Rogers. We can therefore say that these studies were at least, rather imprudent.

Politics determined the timetable of the plans. The elections also influenced the timings in the Plan of Stages. The works had to be completed shortly before the elections so that the citizens would vote in consequence, on seeing how "good" the administration was. This was a further cause that contributed to the plan's failure.

It was a mistake to understand the intervention as a rigid block. It would have been better to divide the project into smaller pieces and over a longer period of time, establishing a flexible, long term programme that could be accelerated or slowed down depending on the city's necessities and its capacity to pay. The economic and urban scales must be harmonised.

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c-2-rec-72-2017-09-03-2018-47862903 [Consulted on 25-02-2022]

IMAGE SOURCES

Fig. 1 José Luis Sainz Guerra.
Fig. 2 José Luis Sainz Guerra.
Fig. 3 Richard Rogers Parnetship, Vidal Sociados, IDOM
Fig. 4 Richard Rogers Parnetship, Vidal Sociados, IDOM
Fig. 5 Ecologistas en Acción.
Fig. 6 PGOU-2020.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the author.

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ENDNOTES

1. The role played by city planning has rarely been that of coordinating and leading the changes; rather it has been a process of incorporating sectorial plans into the general plan. City planning, in this context, means the necessary judicial-administrative process to bring to fruition the decisions taken in the railway sector, guaranteeing the economic value of the land, as well as the commitment to legality, rather than a global urban proposal for the entire city. In a context of planning crisis, urban plans have turned into a number of sectorial plans (traffic, housing, railways and industrial areas), often boosted by the demands or the offers of the various ministries. Ramón López Lucio: "A modo de introducción: algunas cuestiones en torno a la transformación de Barcelona 92. Ciudad y Territorio. Nº 93.
2. Luis Moya: "Cirugía urbana con láser y colonización de la ciudad. Pasillos verdes vs. la operación de Chamartín de Madrid". En José Luis Sainz Guerra (Coord.): La remodelación de la ciudad europea. Universidad de Valladolid. Valladolid, 2007.
3. The cities involved were Alicante, Almería, Barcelona, Cartagena, Gijón, León, Logroño, Murcia, Palencia, Valencia, Valladolid, Vitoria y Zaragoza. Tribunal de Cuentas: Informe de Fiscalización de la actividad de las sociedades públicas de integración del ferrocarril participadas por ADIF-Alta Velocidad, a 31 de diciembre de 2016.
4. Ibidem. Cuadro nº 3.
5. Ibidem. Cuadro nº 3.
6. See the following texts: Ayuntamiento de Valladolid: Valladolid, historia de una ciudad. Vol. 3. La ciudad contemporánea. Valladolid, 1999. Pablo Gigosos; Manuel Saravia: Arquitectura y urbanismo de Valladolid en el siglo XX. Historia de Valladolid VIII-2. Ateneo de Valladolid. Valladolid, 1997. José Luis Sainz Guerra (Coord.): La remodelación de la ciudad europea. Universidad de Valladolid. Valladolid, 2007. José Antonio Ruiz Díaz: Castilla y León: infraestructuras para el siglo XXI. Cámara de Contratistas. Valladolid, 1996.
7. In the first years of the project, numerous initiatives were undertaken that cannot be summarized here. Those interested can find the pertinent information in such publications as: Basilio Calderón; José Luis Sainz Guerra; José Luis García Cuesta: Soterramiento del ferrocarril y transformaciones urbanísticas en Valladolid. Universidad de Valladolid. Departamento de Geografía. 2003.
8. First.—The Minister for Development, through the Secretary of State for Infrastructures, as part of the High Speed Program of the Infrastructures Plan of 2000-2007, is developing the remodeling of the railway system in Valladolid. Convenio 2003 (Agreement 2003). B.O.E. nº 129, 30 May 2003: 21101.
9. The enterprise "Valladolid Alta Velocidad S.A." was made up of the 'Grupo Fomento'with 50% of the shares (which includes RENFE 25%, ADIF 25%, both state owned enterprises), the Regional Government of Castile & Leon with 25%, and the City Council of Valladolid with the other 25%. The document of association of the Commercial Entity "Valladolid Alta Velocidad 2003, S.A." is dated 10 January 2003. It states that "the basic purpose of the society is to develop the works derived from the transformation of the railway network and to promote the urban transformation derived from the abovementioned interventions". As a commercial entity it has its own legislation. The ultimate goal of the society is to enable the management (promotion, contracting, payment, funding, etc.) of the Governing Board with the same agility as a commercial enterprise so as to be able to carry out the necessary works.
10. The CTT is the Technical Treatment Centre (Convenio 2003), also called the New Integral Maintenance Base (Convenio 2017). The term New Railway Complex is also used, and this includes the New Integral Maintenance Base, the New Freight Terminal, Redalsa and the Rail Technology Centre (Convenio 2017).
11. Memoria, PGOU-2003. 80.
12. Ibid.107-108.
13. Ibid. 188-189.
14. "The new urban land (Suelo Urbanizable No Delimitado, under the terms of Spanish city planning law) is divided into 15 Homogeneous Areas whose surface area oscillates between the 10.86 hectares of Zamadueñas and the 662.95 hectares of Prado Palacio, totaling 3,407.87 hectares; of which 2,963.87 hectares are qualified as being for residential use, which means between 102,403 and 238,942 houses, according to the density with which the corresponding Partial Plans were approved". Memoria. PGOU-2003.BOCYL. 27-02-2004. 5.
15. "The signatory administrations are aware that putting a value on the land not needed for the railway will allow a series of economic capital gains which, adequately reinvested, could be used to pay for the necessary work". Convenio 2003. B.O.E. nº 129, 30 May 2003. 21101.
16. "Five.—As the works are for the benefit of the municipality of Valladolid, the City Council will cede, to the Enterprise, by means of the necessary procedures, the corresponding municipal rights to build, in order to pay for the investments made in the present terms (...)". Convenio 2003 (Agreement 2003). B.O.E. nº 129, 30 May 2003. 21101.

17. The example of the arrival of the AVE and the reform of the land occupied by the railway is important for the dominant role of the economic argument, with the application as the central axis of the reflection concerning the recuperation and monetarization of the capital gains generated in the city. As for city planning, the uncritical acceptance of the supposed funding should be pointed out. No reasonable doubts over the unrealistic calculations of the City Council were established. The city planning, in particular the so-called Plan Rogers and the 2007 General Urban Plan (PGOU-2007), demonstrate how the draft writers, specialists in the subject, omitted essential elements from the financial bases. The lack of any verification concerning the economic principles of the plan became the norm. At the same time, no alternative funding possibilities were considered.
18. The teams that made proposals, besides the winner, were: Batlle & Roig, Ricardo Bofill, Foreign Office and Salvador Polo.
19. Estudio Económico Financiero (Economic Funding Study). PGOU-2020. 37.
20. In the document, the Plan of Stages is also called "Programa 1". *Modificación del Plan General y Plan Especial de la Red Ferroviaria Central de Valladolid. Estudio Económico Financiero*. (commonly known as the Plan Rogers). 13.
21. "Ten.—The Enterprise will define the Plan of Stages and the economic balance of the operation, taking into account that: A) All the economic resources obtained by the Enterprise as a consequence of the urban development of the land from RENFE will first of all be applied to payment of the work on the railway recounted in Annex 1 and to fund the working and financial of the interventions of the Enterprise, in the following order of priority: Exterior Eastern Variant of Valladolid in Iberian gauge. Repositioning of the Workshop installations of the TCR, the construction of a new Freight Station and the New CTT. The necessary railway works for the tunnel and the transversal accessibility. The construction of the New Passenger Railway Station in Campo Grande and its road access. B) Secondly, the resources will be applied to funding the urban city planning works in the freed land". B.O.E. nº 129, 30 May 2003. 21102.
22. At the time of writing, 14-04-2022, not one plot of land connected with the tunnel has been sold. Estudio Económico Financiero. *Modificación del Plan General y Plan Especial de la Red Ferroviaria Central de Valladolid*. 10.
23. See: Valladolid Alta Velocidad 2003. Funding needs. *Modificación del Plan General y Plan Especial de la Red Ferroviaria Central de Valladolid. Estudio Económico Financiero*. (commonly known as the Plan Rogers). 32 - 33.
24. The example of the arrival of the AVE and the reform of the land occupied by the railway is important for the dominant role of the economic argument, with the application as the central axis of the reflection concerning the recuperation and monetarization of the capital gains generated in the city. As for city planning, the uncritical acceptance of the supposed funding should be pointed out. No reasonable doubts over the unrealistic calculations of the City Council were established. The city planning, in particular the so-called Plan Rogers and the 2007 General Urban Plan (PGOU-2007), demonstrate how the draft writers, specialists in the subject, omitted essential elements from the financial bases. The lack of any verification concerning the economic principles of the plan became the norm. At the same time, no alternative funding possibilities were considered.
25. "Sr. León de la Riva (the Mayor) signed the said document (Comfort Letter) 26 January 2011 without informing any technical staff of the City Council or asking for a report from the legal team, omitting the necessary legal procedure, i.e., an intervention report that should analyze the capacity of the local entity to comply with the obligations that may derive from the operation, with the corresponding approval of the full City Council and the authorization of the corresponding organ of the Regional Government". Civil & Criminal High Court. Castile & Leon. *Sentence* 44/2018. 8.
26. "Mas y Rajoy estrenan el AVE a Figueres que conecta con Francia". *EL PAIS*. 08-01-2013. [Consulted on 02-06-2022].
27. "ADIF adjudica las obras del túnel Sants-La Sagrera a Sacyr por 179.3 millones". *EL PAIS*. 18-01-2008. [Consulted on 02-06-2022].
28. "Sants-Sagrera: el túnel más largo de Europa". Web page of Constructora Sacyr. https://www.sacyr.com/-/tunel-sants-sagrera. [Consulted on 03-06-2022]. See also: "Túnel Sants-La Sagrera. Misión cumplida". Revista Itransporte. Enero-febrero 2012: 10-11. [Consulted on 03-04-2022].
29. For instance, see the sentence of the Civil & Criminal High Court. Castile & Leon. 2112/2014. The High Court of Castile & Leon accepts the argument that the Partial Plan violated city planning laws as there was no need to build the 15,687 houses contemplated in the said Partial Plan. The land that made up the Homogeneous Area AH-1, of interest here, is classified as "rural land", and is legally protected. No justification has been presented to show that there is a need in the municipality to increase the available residential land, or that it is necessary to build 15,687 more houses. The evidence available to the Court demonstrates a fall in demand for new houses, while it has not been proven that the Partial Plan would satisfy the municipality's

housing needs.

30. The railway project by itself does not mean economic development; it has to be part of a reasonable economic, social and urban context. The investment in infrastructures provides a boost to the already existing enterprises, but it does not create anything new. The existence of a high speed train, although a necessary condition, is not sufficient for the municipalities that can benefit to see substantial improvements in their local and territorial economic structure. What is needed are very carefully planned interventions so that the said interventions will be positive for the urban space. The new infrastructures amplify and accelerate the pre-existing tendencies; yet, if they are merely real estate deals, then the result can be a failure. Juan Romero et al.: "Aproximación a la Geografía del despilfarro en España: balance de las últimas dos décadas". Boletín de la Asociación de Geógrafos Españoles, 77, 17-18. José Luis Sainz Guerra; Fernando Sánchez Mínguez: "The real estate 'Tsunami' in Spain. The administration of urban growth in the case of Arroyo de la Encomienda and Valladolid. Spain". Urban Research and Practice. Francis and Taylor, 2010.

31. "La sociedad encargada de financiar el soterramiento del ferrocarril en Valladolid irá al concurso de acreedores". El Economista.. 12-27-2016. [Consulted on 06-03-2022]. "The Company, which was going to finance the tunnel with the sale of the released land, does not have sufficient resources to face future maturities, nor for the payments of interest accrued on a loan subscribed for 404 million".

32. "The integration of the railway will include eight kilometers of pedestrian walks and cycle-lanes". *El Norte de Castilla.* 20-08-2017. See also Manuel Saravia: "Del incierto soterramiento a la razonable integración". *El Norte de Castilla*. 23-01-2022.

33. "The sectors with a detailed plan (SE(o)) are those in which both the general and the detailed plans are directly established by this PGOU in the urban plan corresponding to the Series D and E, and in the particular files of each one". DN-MV (01) Memoria Vinculante. *PGOU-2020*: 129.

34. Of note in the Plan Rogers was the 100 meter high tower (33 floors) of the Bus Station, which clearly broke the urban landscape in that area; the PGOU-2020 reduces its height to 19 floors and creates a large area of facilities in the rest of the plot. In the area of the Workshops, in the Plan Rogers, there were two 90 meter high towers (30 floors), when the highest buildings in the area closest to Campo Grande are around 40 meters (13 floors) and 20 meters (7 floors) to the south, close to the Delicias suburb; in the PGOU-2020, however, the typologies of the heights of the towers are kept similar to those of the area, reducing the maximum height almost to half that of the Plan Rogers. In the buildings to be constructed in the area of the Workshops closest to the centre, those corresponding to the towers have been reduced to 17 and 13 floors, called ES-T1, i.e., Singular Building and Tertiary 1. In the area of Redalsa, where the Plan Rogers proposed a tower with a maximum height of 46 meters (15 floors) and blocks of 20 meters (7 floors); the PGOU-2020 proposes closed blocks with a maximum height of 30 meters (10 floors). In the area of the Old Station of Ariza, the Plan Rogers proposed buildings with heights of 45, 30 and 20 meters (15, 10 and 7 floors); while in the PGOU-2020, the heights are similar with 15, 13, 11, 7 and 4 floors.

35. Informe de Alegaciones (Allegations Report). *PGOU-2020* : 5.

36. Joan Busquets: "Evolución del planeamiento urbanístico en los años ochenta en Barcelona. Del Plan General Metropolitano a la recuperación urbana de la ciudad". *Ciudad y Territorio*. Nº 93. 1992: 32.