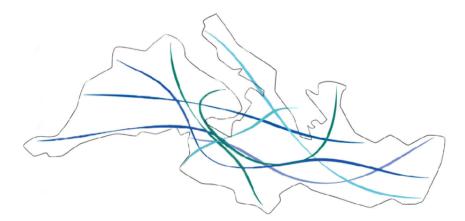
JOURNAL OF MEDITERRANEAN KNOWLEDGE

Editor in Chief, Giuseppe D'Angelo

ELEONORA BELLONI

The "American Way of Mobility". The influence of the American model on traffic and mobility planning in Italy (1920-1960)



ISSN: 2499-930X



MEDITERRANEAN KNOWLEDGE International Centre for Studies & Research www.mediterraneanknowledge.org Belloni, E. (2021). The "American Way of Mobility". The influence of the American model on traffic and mobility planning in Italy (1920-1960), Journal of Mediterranean Knowledge, 6(1), 59-79 DOI: 10.26409/2021JMK6.1.03 Retrieved from http://www.mediterraneanknowledge.org/publications/index.php/journal /issue/archive

Author: Eleonora Belloni, University of Siena eleonora.belloni@unisi.it

Article received: 8 February 2021 Accepted: 27 April 2021

On the cover: Routes by ISIA Roma Design

© ICSR Mediterranean Knowledge 2019 Via Giovanni Paolo II n. 132, 84084 Fisciano, Italy







The "American Way of Mobility". The influence of the American model on traffic and mobility planning in Italy (1920-1960)

Mobility and traffic planning was an issue first tackled in Italy between the two major world conflicts as part of the broader theme of urban organization and with especial attention to the American model. It is in this moment that a significant change in the balance of urban planning culture takes place between Europe and the United States, with the latter becoming the model of reference. A typical example of this "importation" can be seen in the hierarchization of road users, a process that led to the exclusion of the weaker ones (pedestrians and bicyclists) in favor of the car. Following the Second World War, these tendencies are accentuated further as mass motorization, and its infrastructural frame, become an integral part of that 'American way of life'. The present contribution aims to identify the most significant moments of this process as well as the dynamics stemming from the interaction between Italy and the United States in the exchange of the mobility planning model, in order to verify if the adoption of the American system, and consequently its infrastructural model for mobility, can be considered as a form of cultural subordination.

Keywords: mobility, traffic, planning, Americanization

"American way of mobility". La influencia del modelo norteamericano sobre la planeamiento del trafico y de la movilidad en Italia (1920-1960)

Resumen

En los años entre las dos guerras mundiales se afrontó por primera vez el tema de la planificación de la movilidad y de la circulación, como parte de la cuestión de la organización urbana con especial énfasis en el modelo norteamericano. En ese momento se transformó profundamente la cultura de la planificación urbana en Europa y en Estados Unidos; estos últimos se convirtieron en el modelo de referencia. Un ejemplo típico de esta "importación" puede localizarse en la jerarquía entre los usuarios de la calle, lo que llevó a la discriminación de los más débiles (peatones y ciclistas) en beneficio de los coches.

Después de la segunda guerra mundial, estas tendencias se acentuaron, porque la motorización masiva – y su marco infraestructural – se apoderó del estilo de vida americano.

Este ensayo pretende identificar los momentos más destacados de este proceso y las dinámicas derivantes de la interacción entre Italia y Estados Unidos a la hora de compartir el modelo de planificación de la movilidad, para comprobar si la adopción del sistema norteamericano, y por consiguiente de su modelo infraestructural de movilidad, puede considerarse una forma de subordinación cultural.

Palabras clave: movilidad, circulación, planificación, americanización.

"American Way of Mobility" L'influenza del modello Americano sulla pianificazione del traffico e della mobilità in Italia (1920-1960)

La pianificazione della mobilità e del traffico fu affrontata per la prima volta tra le due guerre mondiali, come parte di un più ampio discorso sull'organizzazione urbana e con speciale attenzione al modello Americano. In quel momento ebbe luogo un cambiamento significativo nella cultura della pianificazione urbana tra Europa e Stati Uniti e questi ultimi divennero il modello di riferimento. Un tipico esempio di tale "importazione" può essere rintracciato nella gerarchizzazione degli utenti della strada, che portò alla discriminazione dei più deboli (pedoni e ciclisti), a vantaggio delle automobili.

Dopo la seconda guerra mondiale, queste tendenze furono ulteriormente accentuate, perché la motorizzazione di massa, e il suo quadro infrastrutturale, divenne parte integrante del modello americano di vita. Il presente contributo mira a identificare i momenti più significativi di questo processo, nonché le dinamiche che provengono dall'interazione tra Italia e Stati Uniti nella condivisione del modello di pianificazione della mobilità, al fine di verificare se l'adozione del sistema americano, e di conseguenza del suo modello infrastrutturale di mobilità, possa essere considerata una forma di subalternità culturale.

Parole chiave: mobilità, traffico, pianificazione, americanizzazione.

The "American Way of Mobility". The influence of the American model on traffic and mobility planning in Italy (1920-1960)*.

Eleonora Belloni University of Siena

Introduction. Planning traffic and mobility: a "modern" theme

With the appearance of the bicycle, followed by the automobile at the turn of the 19th and 20th centuries, the road was definitely transformed from a social space to a space of contested mobility (Moraglio, 2009).

This was an epochal revolution, both from a practical and cultural point of view. Such change, in fact, brought about others: from the progressive marginalization of certain players (the first of these is the pedestrian, singled out as an intruder and as such sidelined), to the planning of this place of mobility and, consequently, the need to create specific technical knowledge capable of carrying out this work.

The process was of course gradual and multifaceted. However, it can certainly be said that, from the 1950s, cities ceased to be built for people and their development was entirely delegated to professional designers and, in the case of the road system, traffic planners, according to whom the city had to be adapted to (motorized) traffic, effectively overshadowing its human dimension (Gehl, 2017).

While this course is common, albeit with different times, to the whole Western world, the way in which this process took place nevertheless outlines different models of mobility and land management. Such models are, in turn, partly the result of national processes and partly of international influences and cultural exchange.

^{*} Translated by Alexander Agostini.

Journal of Mediterranean Knowledge 6(1), 2021, 59-79. DOI: 10.26409/2021JMK6.1.03

While well-established studies on the history of transport and mobility already exist in Italy, with particular focus on the dynamics that witnessed the birth and consolidation of the model of mass motorization¹, there is nevertheless still a lack of research that emphasizes, on the one hand, the role "experts" of urban and traffic planning played in this matter, and on the other, the extent to which their actions were inspired by principles deriving from the international circulation of ideas. On the contrary, this subject has been at the center of a series of studies, especially involving the models of mobility of several northern European countries. Among these it is worth pointing out work carried out for the Netherlands (Buiter, 2010) and Sweden (Emanuel, 2012; Lundin, 2010). The debate can be set between the socio-material approach to the study of urban infrastructures (Coutard et al., 2005; Farias & Bender, 2009; Graham & Marvin, 2001) and the new lines of research inaugurated by the *mobility turn* (Maggi, 2018; Sheller & Urry, 2006; Urry, 2008).

What we will try to do here is to see how the issue arose in Italy, highlighting the extent to which the mobility planning model was subject to foreign, and in particular Atlantic, influences. To do this, in addition to the specialized journals of reference where the debate took place, we will use as source materials the proceedings of the National Conferences for Traffic and Circulation as well as those from the Permanent International Association of Road Congresses (Piarc), a valuable but often overlooked source on the transnational movement sharing road management practices and models.

1. The birth of the planning question in the aftermath of the First World War

In 1911 the first National Road Conference was held in Turin (*Convegno nazionale della strada a Torino*, 1912; "Il primo convegno nazionale della strada", 1911a, 1911b, 1911c, 1911d), followed by the one in Florence the year after ("Il secondo convegno nazionale

¹ See, for example: Giuntini & Pavese, 2004; Gorgolini, 2013; Maggi, 2005; Maggi, 2006; Maggi, 2021; Paolini, 2004; Paolini, 2005; Paolini, 2007.

della strada", 1912a, 1912b, 1912c, 1913). The first International Road Congress had been held in Paris in 1908 (Tedeschi, 1908), followed by the Brussels Congress in 1910 and the London Congress in 1913 (Tedeschi, 1920)². In 1909, following the Paris meeting, the French capital witnessed the birth of the Permanent International Association of Road Congresses (Piarc).

The institutionalization of these meetings demonstrated the extent to which, by the end of the first decade of the 20th century, road management had changed from a sanitary matter regarding urban organization to a real battle concerning the rationalization of public space for circulation purposes. This was first fought with a flurry of municipal resolutions, followed by the drawing up of plans by urban and traffic designers. In this context transportation became the focus of a struggle for the conquest of the city's public space. At the same time, the emergence of a body such as the Piarc marked the internationalization of the road question, opening the way to a wider transparational dissemination of practices and models of traffic management and planning.

Nevertheless, it was with the Great War that a first major change took place. By its end, it became of paramount importance in Italy, as in much of the Western world, to promote motorization at all costs. Set "al centro della strada" and presented as a "mezzo di trasporto indispensabile e insostituibile" ("La nuova tassa sulle automobili", 1920), the car during the war seemed to be on its way to fast becoming a central part of both public and sector policies.

Statements of this kind began to appear in specialized journals:

Se non vogliamo restare in coda alle altre nazioni e perdere il terreno guadagnato nell'industria dell'auto, se non vogliamo inaridire sorgenti che possono diventare poderose per le finanze dello Stato, dobbiamo favorire l'automobilismo in ogni modo. Antiquata è l'opinione che l'auto sia un lusso [...] Guardiamo a quegli stati che hanno un'auto ogni 50, perfino ogni 30 abitanti! ("Relazione del Consiglio per l'esercizio 1918", 1919, pp. 42-61)

To further reinforce the concept it was reiterated that: "I trasporti delle masse, che avranno bisogno di essere rapidi, di godere di quella libertà di movimenti che una ferrovia non consentirà mai,

 $^{^2}$ On the network of international and transnational relations developed around the Piarc and the management of the road problem see Mom, 2015, pp. 572-590.

non potranno operarsi che con automobili" ("I nuovi destini dell'automobile", 1919, p. 115).

The first corollary of this change was that America, along with Great Britain, became the model to emulate in terms of motorization and mobility planning aspects (Albertini, 1919a, 1919b; Segre, 1919). The number of cars circulating overseas – a car every 14 inhabitants, according to a 1919 American study (Grioni, 1920), a car every 11 inhabitants in 1921, compared to Italy with a car every 1.125 inhabitants (Vandone, 1921) – was read as an indicator of the wealth of the United States.

At the same time, the idea of a hierarchy in the right of access to road traffic began to clearly emerge, with the pedestrian relegated to the role of "il bastone tra le ruote dell'ordine circolatorio" (Pironti, 1920, pp. 32-34). Likewise, also the bicycle appeared as increasingly marginalized, with cyclists having to deal with an ever increasing number of proscription measures, restrictions, inadequately punished cases of theft, and both public and private facilities refusing to accommodate bicycles in their entrance halls. The presence of different vehicles on the roads, capable of different speeds, was cited as the cause of traffic disturbance. It is obvious how the idea behind this "orderly" traffic was that of a road dominated by the car.

In light of these facts one can read the changes that took place in Italy with regards to road planning. In 1916 the Touring Club's Road Commission proposed that the obligation for each Municipality to set up a "piano regolatore organico per la viabilità" ("Relazione del Consiglio per l'esercizio 1916", 1917, pp. 169-179) should be regulated by law. Policies in favor of improving the roads were seen as a necessary premise for:

l'avvento di una umanità che reputerà la ferrovia, l'esponente del progresso del secolo decimonono, come una specie di male necessario, e riporterà sulla strada *ordinaria* la maggior parte del traffico. Sarà una umanità che circolerà raramente a piedi, il più sovente trascinata in velocissimi veicoli a trazione meccanica ("Strade americane in calcestruzzo di cemento", 1917, pp. 202-207).

At the head of this modernizing movement was a new class of engineers and technicians with a privileged view of what was taking place on the other side of the Ocean. In 1918 the Experimental Institute for Road Materials was founded³, financed by the Milanese engineer Piero Puricelli and directed by Italo Vandone, with the aim of tackling the problem of improving roads, an issue that was fast becoming central in the post-war agenda of the Italian Touring Club ("Il problema stradale preso alla base", 1918).

But the war also brought about a shift in the international balance. If in the first decade of its life the Piarc, despite being born and characterized as a strongly supranational institution, had been dominated by European delegations – above all the French – after the war (the first post-war conference is that of Seville in 1923) things began to change. As shown in an interesting piece of research carried out by Gijs Mom (Mom, 2015, pp. 572-590), Europeans continued to dominate these international events, both in terms of participating delegates and reports submitted, while American presence saw a gradual but steady increase.

This was obviously reflected both in the choice of conference themes and in the outcomes of the debates. As Mom rightly points out (2015, p. 577), what emerged quite early on was a tendency to identify the "road problem" as a "car problem", relegating other users to a marginal role, well exemplified by the theme of separated lanes (pedestrian, cycling, etc.) designed for these users. These balances were likewise also reflected in the dominant themes of the meetings. If in the first three pre-war conferences (Paris 1908, Brussels 1910 and London 1913) issues such as road surfacing and signaling were centre stage (Piarc, 1910, 1913), from the Seville Conference of 1923 themes such as motorization, traffic and road congestion began to emerge (Piarc, 1923), soon followed by traffic planning (Milano 1926, Washington 1930) and the construction of roads reserved or expressly designed for motorcar circulation (Milano 1926, Monaco 1934, L'Aia 1938) (Piarc, 1926, 1930, 1934, 1938).

Lastly, an additional trend that clearly emerged from the proceedings of the Piarc was that of a technicalisation (and in part a quantification) of road planning. The 1930 Washington Conference represented a watershed in this respect, as it enabled many

³ The Institute's activities were supported and publicized through the journal "Le Strade", which carried on the work of the homonymous journal published in Turin from 1898 and directed by Massimo Tedeschi.

European delegates to come in contact with American traffic engineers, learning of the different traffic schools and laboratories that had sprung up across the United States in the previous decade⁴. Furthermore, the war had also contributed to a reevaluation of technical and specialized knowledge, bringing the figure of the "expert" to the forefront. This trend became more pronounced over the course of the 1920s and 1930s, with a significant impact on urbanization and, more generally, on everything related to the planning of urban realties, including communication⁵. In truth, the first signs of this tendency had already been felt in Italy even before the war. Specialized journals such as "Le strade" or the "Rivista mensile del TCI" had started to view with interest at the development taking place overseas of schools specialized in the training of engineers and road technicians destined to make their contribution to public administration offices responsible for solving urban and road issues. These were still only sporadic cases in which, nevertheless, the first hopes began to emerge that "presso le Pubbliche Amministrazioni aventi governo di strade, il relativo servizio tecnico vada progressivamente informandosi a quello spirito scientifico e sperimentale" (Vandone, 1912, pp. 1-4) occurring elsewhere. In the immediate aftermath of the First World War, it was above all the journal "Le strade" that reintroduced the urgency of the problem of traffic in large urban centers. It did so, once again, by looking at solutions from abroad: England in particular (Vandone, 1920) but also France and the United States (Tedeschi, 1921).

In 1923 the question of traffic planning as an aspect of general urban development began to be systematically addressed by the Italian Touring Club (Barbieri, 1923).

⁴ The figure of traffic engineer was, of course, first born in the United States in 1921 although a Foundation for the study of road traffic had already been instituted in 1904; in 1931 the Institute of Traffic Engineers was finally created, accompanied by numerous undergraduate and post-graduate courses. See Bolis, 1956.

⁵ On the new role played by technicians and experts between the 1920s and 1930s see Kohlrausch, 2015.

2. Italian uniqueness or Atlantic model?

From the outside, the association seemed to want to adopt an innovative approach to the matter: avoid blatant imitations of foreign models; take into account the unique environmental and historical characteristics of many Italian cities; establish a mediumterm strategy capable of regulating services and communications with foresight. Such a process was not easily achievable in a context, as the Italian one, where urban development legislation dated back to 1865, contemplating urban planning only in cases where urgent interventions aimed at solving immediate issues were needed. This led to exclude, on the one hand, any medium-long term programming and, on the other, any planning that took into account in a simultaneous and coordinated way different aspects regarding urban layout, including those related to mobility (Albertini, 1942).

The idea was to avoid a centralization of services and consequently of traffic in large urban realities, in order to encourage the development of delocalized centers, coordinated with one another and the main center through a well-organized network system. Decentralization and the birth of peripheral districts had, however, the effect of increasing travel distances, therefore legitimizing even further the automobile as a means of transport.

In addition, the urban road system was imagined as responding to a precise "differenziazione del traffico secondo la diversa natura di esso": essentially it was a matter of assessing the different actors involved (tramways, light and heavy vehicles, bicycles, pedestrians), reserving for each one his proper space (Albertini, 1923); or, as stated otherwise, to "differenziare il traffico a seconda della sua natura" (Albertini, 1925, pp. 95-97). One of the consequences of these valuations was the need to clear the city centers of tramways; therefore, if on the one hand the importance of public transport was effectively recognized, on the other there was a tendency to consider the road as a superior means of transport compared to the rail.

A strong advocate in the cause for traffic separation was the engineer Cesare Albertini, the future creator of Milan's 1934 urban development plan and promoter of that technicalisation of the mobility problem which was to become dominant after World War II. During the conference of the engineers and technical administrators of the municipalities and municipalized companies held in Vercelli on the 29^{th} and 30^{th} of October 1924, Albertini proposed an agenda that read as follows:

Il Congresso, ritenuto che l'agevolare la circolazione delle città congestionate dal traffico è problema per sua natura di carattere prevalentemente tecnico, esprime il voto che con acconce provvidenze di piano regolatore, con opportune sistemazioni e coordinamenti di mezzi di trasporto, collo studio di strade differenziate per pavimentazione e per ampiezza a seconda del tipo di veicoli a cui sono destinati [...] i tecnici e gli amministratori comunali collaborino nel modo più efficace a risolvere il problema della circolazione stradale nel nucleo centrale delle nostre città (Albertini, 1925, pp. 95-97).

What clearly emerged from Albertini's analyses was the need for a complementarity between urban and traffic planning. Starting from the assumption that Italian urban centers presented a unique characteristic in the form of a high concentration of historical buildings, where it was oftentimes difficult if not impossible to imagine solving the issue of circulation by widening the roads via building demolishment, it followed that the problem of traffic had to be faced through a long-term program that identified an adequate policy aimed at decentralizing not only housing, but also services and working areas, so as to relive the urban centers of traffic congestion (Albertini, 1926). Apparently this was the criterion that inspired Rome's new development plan (Albertini, 1932). In the meantime, in 1926, the first road engineering course was inaugurated at the Milan Polytechnic, modelled on those that had already been in operation abroad for years and that the Touring Club had promoted on numerous occasions.

In those years the problem of urban circulation began to be systematically addressed by a journal such as "II Politecnico", demonstrating the technical scope mobility was reaching. The allusion to the American model was, once again, explicit:

Sotto l'assillo insistente delle nuove necessità, che il volume sempre crescente dei traffici e della circolazione crea alle nostre congestionate città, i tecnici sono stati richiamati ad una più diligente osservazione e meditazione di questi fatti e delle loro manifestazioni [...] ed è doveroso riconoscere che il merito di questo nuovo indirizzo di studi spetta in primo luogo agli Americani (Chiodi, 1930, pp. 665-677).

A not irrelevant aspect of this new direction was the attention reserved to the statistical recording of traffic and circulation:

Il rilevamento del traffico stradale è divenuto oggi nelle attuazioni di piano regolatore una necessità non ancora sufficientemente sentita da tutti, ma che è indispensabile entri nella coscienza degli urbanisti, concorra nelle decisioni degli Amministratori, ai quali incombono ben gravi responsabilità nella gestione della cosa pubblica (Conte, Di Rienzo & Napoli, 1937, p. 6).

In contrast with rail and maritime traffic which had already been subject to accurate periodical statistical surveys since the second half of the 19th century, road traffic was by its very nature difficult to measure. With the exception of a few statistical recordings carried out by municipal technical offices and thus attributable to local initiatives⁶, the first large-scale national traffic survey dates back to 1925, with the Statistica del traffico lungo le strade di prima classe commissioned by the then Minister of Public Works, Giovanni Giuriati. At that time the measure was hailed with great enthusiasm by the Touring Club, for it finally seemed to fill-in those gaps that could be ascribed to a lack of reference points for measuring the circulation of different vehicles on the national territory (Vandone, 1925). However, the survey, in addition to covering only a single road category, was limited to gathering data for only a week (September 1925), choosing to survey only animal or mechanically driven vehicles while excluding, for example, bicycles (Vandone, 1927). This was followed by three other surveys in 1928, on first class roads in spring and on national roads in the autumn (Azienda autonoma statale della strada, 1929a, 1929b), in 1933 (Azienda autonoma statale della strada, 1934) and again in 1938 (Azienda autonoma statale della strada, 1939; Ministero dei Lavori Pubblici, 1939). A further limit of these recordings, already noted by contemporary observers, was the tendency to concentrate data on tonnage (stemming from the need to assess the type of maintenance that had to be carried out on the road surface), often leaving a marginal role to surveys aimed at providing the number of vehicles circulating for the various categories (Santini & Biffi, 1937).

⁶ For the first recordings of local traffic see Vandone, 1910. This was the communication given at the second International Road Congress (Bruxelles 1910).

In this sense the example of what was taking place overseas surely had a positive influence in demonstrating the importance of quantifying traffic for subsequent planning.

Nevertheless, these principles once again had as corollaries on the one hand the centrality attributed to the automobile and the consequent marginalization of other forms of mobility; on the other, the tendency to see the American model as representing a certain and inevitable future for the European continent:

Lo sviluppo ancora limitato dell'automobilismo in Italia non offre sufficienti dati di esperienza, i quali possono essere invece opportunamente forniti dai paesi che avendo già raggiunto un elevatissimo sviluppo automobilistico rappresentano approssimativamente la situazione alla quale noi pure tendiamo nel futuro (Chiodi, 1930, pp. 665-677).

The spread of the car, therefore, continued to be touted as the only possible way forward for the mobility in the future as well as the main indicator of a nation's progress:

L'impiego del veicolo a motore nei viaggi isolati è un indice della ricchezza e del benessere individuale di una nazione per cui ove l'automobile privata è poco diffusa è da ritenersi che esista una proporzionale minor ricchezza individuale nella popolazione (Riparbelli, 1931, pp. 346-357).

And this in spite of the fact that statistics confirmed the very slow development of motoring in Italy compared to both the United States and other European countries. A 1928 statistic indicated that 172.000 cars circulated in Italy compared to almost 25 million in the United States and over 1 million in Great Britain, France and Canada (Riparbelli, 1931).

As a consequence, the circulation and planning model emerging from the United States was looked upon with a mixture of admiration, skepticism and concern. A model in which "non circolano motociclette e tantomeno biciclette", while the car asserted itself as "il mezzo più comune di locomozione e di trasporto":

Moltitudini di pedoni di ogni razza e di ogni qualità e ridde di autoveicoli di ogni forma e di ogni colore invadevano le strade, dove – con 'umorismo americano' – Henry Ford annunciava che nell'arco di dieci anni ogni cittadino avrebbe avuto un'automobile di proprietà, e le metropolitane avrebbero lasciato posto a posteggi per le vetture private (Tegani, 1925, pp. 671-680). Therefore, the constant reference to the American model led to the affirmation of the idea that the car and speed were identifying signs of progress. It was from this idea that, as we have seen, the International Road Congresses took shape, putting the issue of urban traffic congestion on the agenda from the 1920s onwards.

Therefore, the model that soon established itself was that of a hierarchical, non-shared road. As Gijs Mom (2015, pp. 594-606) rightly points out, the reasons why traffic planners were so easily converted to this hierarchical and self-centered vision can be found partly in the "mito del progresso tecnologico" that seemed to be already well established in Europe at the start of the century, and partly in the fact that the experience of other infrastructural plans, starting with the railway, tended to testify in favor of a monopolized rather than a shared infrastructure. Nevertheless, this can only go so far in explaining the ease with which those that until a few years earlier had championed the interests of other means of transport agreed to bow so readily to the diktat of the car. In assessing these dynamics one should probably not overlook a kind of "cultural subordination" that Italy was beginning to have towards the American economic model, a process that would find its definitive affirmation after the Second World War when, during the reconstruction process made possible by the Marshall Plan, the country made its definitive shift in favor of that system inspired by the 'American Way of Life'.

3. The "American Way of Mobility"

The Italy that emerged from the Second World War was a country brought to its knees by five long years of war, two decades of dictatorship and a lacerating war of Liberation that had broken-up the unity of the nation's social fabric. The governments of National Unity first, and then the centrist governments, found themselves entrusted with the task of reconstruction in order to clear the debris – not only the material one – left by the conflict. First and foremost, there was the issue of reconstructing the road and railway infrastructure, a problem that concerned mobility but also the possibility of mending the entire social and economic life of a nation. 38% of the overall functionality of the transport system was compromised. In terms of infrastructure, 50% of the 17.000 kilometers of railway lines existing in 1940, 19.000 kilometers of bridges and 42.000 kilometers of roads (half of the public highways, a third of the provincial roads and a sixth of the municipal roads) had been damaged (Gorgolini, 2013).

If in the immediate aftermath of the war priority appeared for a moment to be reserved for the reconstruction and development of the ordinary road network (municipal, provincial and public highway), by the early 1950s a clear shift in favor of a highway policy began to take shape, testified by the birth of what would turn out to be two important motoring lobbies: the Italian Road Federation (1952) and the parliamentary group Friends of the Car, the latter made up of senators and deputies from various parties (with the exception of communists and socialists) (Paolini, 2007).

However, the problems of the urban road system had to be confronted with the lack of regulation in Italy of the urban planning issue (based on law n. 1150 of 1942, the implementing regulations for which had never been approved) and the building speculation that followed, partly due to the need for reconstruction and labor absorption. In terms of mobility this resulted in traffic congestion in the most densely built areas of the city, lack of adequate pedestrian and bicycle routes, a tendency to sacrifice pedestrian or green areas and the absence of a plan for mobility infrastructures. The 1942 urban planning law, which came into being in a context where less than 74.000 cars circulated in the country, merely stipulated in article 7, that the town plan should also indicate the network of main roads. Urban expansion and the increase in motorization also led to a crisis in the public transport sector, to which the authorities responded by simply dismantling the tram networks and replacing them with buses (Paolini, 2005).

Urban and traffic engineers began to give absolute priority to the car while transports such as the bicycle, and to some extent the public transport, were destined to disappear or remain residual. The proceedings of the annual Conference on circulation held in Stresa (Piedmont)⁷ offer insight in the internal debate and demonstrate how, once the reconstruction emergency and the need to provide the road system with new, updated and unified standards had passed⁸, traffic and mobility planning resumed along the lines that had already been partly highlighted in the period between the wars: construction of traffic⁹ and parking facilities¹⁰; traffic measurement for mobility planning purposes¹¹.

In the spring of 1954 a 32-member delegation from the OECE, four of whom were Italian (Bottaro of the Ministry of Transport, Cusani of the Rome Tramway Agency, De Rossi of the Traffic Police and the urbanist Ruspoli), traveled to the United States in order to study American roadway organization. Basically, the principles that emerged, and which were used as a model for the organization of the Italian road system, were: urban decentralization, with a development of the suburbs; construction of express-ways, large high-speed communication routes capable of connecting business districts to urban centers; traffic surveys (often carried out door to door and quite rare in Europe); building of new roads (rather than adapting the old) with wide carriageways; construction of car parks, preferably in the center (suburban car parks, supplemented later-on by buses or subways, were defined as "non convenienti"); marginalization of the public transport (Bolis, 1956).

⁷ The "Conferenza del traffico e della circolazione", promoted by the Automobile Club d'Italia, represented an annual meeting on the theme of mobility and transport: founded in 1930, it was interrupted from 1938 to 1949, resuming annually from 1950 with its seat in Stresa.

 $^{^8}$ In reality, it was not until 1959 that the new Traffic Code was introduced (approved with the D.P.R. n. 393 of the 15th of June 1959).

⁹ The themes were those of roadway and highway development. See, for example, the Conferences held in 1951 (Automobile Club d'Italia & Automobile Club di Milano, 1951), 1953 (Automobile Club d'Italia & Automobile Club di Milano, 1953), 1954 (Automobile Club d'Italia & Automobile Club di Milano, 1955a), 1955 (Automobile Club d'Italia & Automobile Club di Milano, 1955b) and 1961 (Automobile Club d'Italia & Automobile Club di Milano, 1961).

¹⁰ The issue of parking spaces is brought up again in the Conferences held in 1950 (Automobile Club d'Italia & Automobile Club di Milano, 1950), 1955 (Automobile Club d'Italia & Automobile Club di Milano, 1955b) and 1961 (Automobile Club d'Italia & Automobile Club di Milano, 1961).

¹¹ The theme returns, for example, in the 1951 Conference (Automobile Club d'Italia & Automobile Club di Milano, 1951).

The lesson was clear: "in Europa si pensa ancora troppo alla casa e troppo poco alla strada; in America si verifica ormai l'opposto" (Bolis, 1956, pp. 53-64), complemented by the statement that "una strada è tanto più efficiente quanto più traffico può sopportare [e] a parità di capacità sarà più efficiente quella strada che consentirà velocità più elevate" (Zambrini, 1961, pp. 183-210). It was therefore a system where the road, as quintessential infrastructure for individual motorized mobility, became central while the home and consequently the quality of city life, intended as a space for the citizenship, fell in the background.

The OECE delegation ended its trip with а series of recommendations, from which the takeover of the American model of mobility planning appeared to be clear and explicit. In particular, recommendation number 8 stated: "le norme previste per la sistemazione della futura rete stradale europea potrebbero essere messe a punto in maniera più precisa alla luce degli insegnamenti della tecnica americana"; number 9 "quando le strade esistenti sono sature, converrebbe domandarsi se, come gli Americani si sono accorti, non sia quasi sempre più economico costruire una strada interamente nuova, con accessi controllati, che allargare la strada esistente" and number 26: "bisognerebbe fare un più grosso sforzo per ridurre il traffico dei trasporti pubblici nelle ore di punta" (Bolis, 1956, pp. 53-64).

In fact, the trip to the United States and the subsequent recommendations set the benchmark for all future planning. The debate that featured in all of the major specialized journals in the following years shows the extent to which the United States were looked to for new urban and traffic planning. What is remarkable is that, in the case of the journal "Le Strade", this was a periodical directly managed by the Italian Touring Club, demonstrating the extent to which the Touring Club had long since abandoned its role as a reference body for cycling interests, rather favoring the interests of mass motorization.

The themes of the debate were those that had already emerged from the report of the OECE delegation: the construction of large expressways and highways (Bolis, 1957; Zambrini, 1961); the building of large interstate highways (Podestà, 1962, 1963); the design and construction of car parks, especially for commercial activities ("Caratteristiche del traffico ", 1962; "Parcheggi riservati ai clienti", 1963). Often these articles were reports, but invariably they always ended with the recommendation that Italy should also look at what was being done overseas regarding traffic planning and road design.

What followed, in terms of infrastructural development and, more generally, mobility planning and management choices, is well-known history¹². Basically, the roads (and especially the highways) were seen as the infrastructural instrument in service of mass motorization, that in turn became one of the pillars on which the country built its economic miracle. Historiography, both on transport and economic and territorial development in the years of the economic miracle, is basically unanimous in recognizing the phenomenon of mass motorization, or rather the mobility system based on private motorized transport, as a strategic and conscious choice made from above to place the car and its industry at the center of country's economic recovery project.

What has been emphasized here is, on the one hand, the "cultural" importance that overseas influences had in these choices, destined to have such a strong and long-lasting impact on the national mobility model; and on the other, how this process did not exclusively originate in the aftermath of the War, as a consequence of economic and political dependence in what was then a bipolar framework, but rather its roots can be traced back to the period between the wars, as demonstrated by the changes of balance that took place within the Piarc, the most important body for international debate on issues of traffic and mobility planning.

References

Albertini, C. (1919a). Regolamento di circolazione. *Le vie d'Italia, III* (6), 349-353.

Albertini, C. (1919b). Per la sicurezza della circolazione. *Le vie d'Italia, III* (8), 481-487.

Albertini, C. (1923). Per le nostre città più grandi e più belle. *Le vie d'Italia, XXIX* (12), 1309-1317.

¹² On transport and mobility in Italy after the Second World War see: Giuntini & Pavese, 2004; Maggi, 2005; Menduni, 1999; Paolini, 2005.

- Albertini, C. (1925). Provvedimenti tecnici per agevolare la circolazione nelle città congestionate dal traffico. *Le strade, VII* (4), 95-97.
- Albertini, C. (1926). I mali della circolazione. *Le vie d'Italia, XXXII* (5), 523-530.
- Albertini, C. (1932). Roma di domani. *Le vie d'Italia, XXXVIII* (1), 71-78.
- Albertini, C. (1942). Le strade e la nuova legge urbanistica. *Le strade, XXIV* (9), 271-275.
- Automobile Club d'Italia, & Automobile Club di Milano (1950). *VII Conferenza del traffico e della circolazione. Stresa 7-8 ottobre 1950. Relazioni e comunicazioni.* Milano: Tip. Carlo Re e C.
- Automobile Club d'Italia, & Automobile Club di Milano (1951). *VIII Conferenza del traffico e della circolazione. Stresa 13-14 ottobre 1951. Relazioni e comunicazioni.* Milano: Tip. Carlo Re e C.
- Automobile Club d'Italia, & Automobile Club di Milano (1953). *X Conferenza del traffico e della circolazione. Stresa 9-11 ottobre 1953. Relazioni e comunicazioni.* Milano: Tip. Carlo Re e C.
- Automobile Club d'Italia, & Automobile Club di Milano (1955a). *XI Conferenza del traffico e della circolazione. Stresa 8-10 ottobre 1954. Atti ufficiali.* Milano: Tip. Carlo Re e C.
- Automobile Club d'Italia, & Automobile Club di Milano (1955b). *XII Conferenza del traffico e della circolazione. Stresa 14-16 ottobre 1955. Relazioni e comunicazioni.* Milano: Tip. Carlo Re e C.
- Automobile Club d'Italia, & Automobile Club di Milano (1961). *XVIII Conferenza del traffico e della circolazione. Stresa 21-24 settembre 1961. Atti ufficiali.* Milano.
- Azienda autonoma statale della strada (1929a). *Statistica del carreggio lungo le strade di 1a classe: aprile-maggio 1928*. Roma: Tipografia operaia romana.
- Azienda autonoma statale della strada (1929b). *Statistica del carreggio lungo le strade statali: settembre-ottobre 1928*. Roma: Tipografia operaia romana.
- Azienda autonoma statale della strada (1931). *Statistica della circolazione lungo le strade statali: gennaio-dicembre 1933*. Roma: Tip. Aternum.
- Azienda autonoma statale della strada (1939). *Statistica della circolazione lungo le strade statali: gennaio-dicembre 1938*. Roma: Sabucchi.
- Barbieri, D. (1923). I piani regolatori e la fisionomia delle città. *Le vie d'Italia, XXIX* (8), 875-885.
- Bolis, B. (1956). L'organizzazione della circolazione stradale negli Stati Uniti. *Le Strade, XXXVI* (2), 53-64.
- Bolis, B. (1957). Le grandi strade interstatali dell'America del Nord e i loro collegamenti coi centri urbani. *Le Strade, XXXVII* (1), 1-2.
- Buiter, H. (2010). Constructing Dutch Street: A Melting Pot of European Technologies. In M. Hard and T.J. Misa (Eds), *Urban Machinery. Inside Modern European Cities* (pp. 141-162). Cambridge-London: MIT Press.
- (1962) Caratteristiche del traffico negli "Shopping Centers" regionali americani. *Le strade, XLII* (10), 461-466.
- Chiodi, C. (1930). Lo studio dei problemi del traffico stradale urbano. *Il Politecnico, LXXVIII* (11), 665-677.
- Conte U., Di Renzo A., & Napoli P. (1937). Sesta conferenza per la circolazione stradale. Torino, 20-25 maggio 1937. La statistica della circolazione nei centri urbani. Roma: Tip. F. Canella.

- (1912). *Convegno nazionale della strada a Torino. Relazione dei lavori del convegno.* Milano: Tip. F.lli Veronesi.
- Coutard, O., Hanley, R.E. & Zimmerman, E. (Eds) (2005). *Sustaining Urban Networks: The Social Diffusion of Large Technical Systems*. London: Routledge.
- Emanuel, M. (2012). Ideology and representations in urban traffic planning in Stockholm, 1930-1970. *The Journal of Transport History*, 33 (1), 67-91.
- Farias, I. & Bender, T. (Eds) (2009). *Urban Assemblages How Actor-network Theory Changes Urban Studies*. London: Routledge.
- Gehl J. (2017). *Città per le persone*. Santarcangelo di Romagna: Maggioli editore.
- Giuntini A., & Pavese C. (Eds) (2004). *Reti, mobilità, trasporti. Il sistema italiano tra prospettiva storica e innovazione*. Milano: FrancoAngeli.
- Gorgolini L. (2013). *L'Italia in movimento. Storia sociale degli anni Cinquanta.* Milano: Bruno Mondadori.
- Graham, S. & Marvin, S. (2001). *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition*. London: Routledge.
- Grioni, U. (1920). L'assalto. Cifre, note e confronti. Le vie d'Italia, IV (9), 529-541.
- (1919). I nuovi destini dell'automobile. *Le vie d'Italia, III* (2), 115.
- (1911). Il primo convegno nazionale della strada. Le strade, XIV (9), 129-140.
- (1911). Il primo convegno nazionale della strada. Le strade, XIV (10), 153-157.
- (1911). Il primo convegno nazionale della strada. Le strade, XIV (11), 169-175.
- (1911). Il primo convegno nazionale della strada. Le strade, XIV (12), 182-187.
- (1918). Il problema stradale preso alla base. Le vie d'Italia, II (7), 385-392.
- (1912). Il secondo convegno nazionale della strada. Firenze 14-17 ottobre 1912. *Le strade, XV* (10), 145-155.
- (1912). Il secondo convegno nazionale della strada. Firenze 14-17 ottobre 1912. *Le strade, XV* (11), 163-171.
- (1912). Il secondo convegno nazionale della strada. Firenze 14-17 ottobre 1912. *Le strade, XV* (12), 182-186.
- (1913). Il secondo convegno nazionale della strada. Firenze 14-17 ottobre 1912. *Le strade, XVI* (4), 49-54.
- Kohlrausch, M. (2015). The hour of the experts?: reflections on the rise of experts in interbellum Europe. In J. Vandenriessche, E. Peeters & K. Wils (Eds), *Scientists expertise as performance: between state and society 1860-1960* (pp. 67-79). London: Pickering & Chatto.
- (1920). La nuova tassa sulle automobili. Rivista mensile del TCI, XXVI (8), 388.
- Lundin, P. (2010). Mediators of Modernity: Planning Experts and the Making of the "Car-Friendly" City in Europe. In M. Hard and T.J. Misa (Eds), *Urban Machinery. Inside Modern European Cities* (pp. 257-279). Cambridge-London: MIT Press.
- Maggi, S. (2005). Storia dei trasporti in Italia. Bologna: Il Mulino.
- Maggi, S. (2006). La 600 e il telefono. Una rivoluzione sociale. In A. Cardini (Ed), *Il miracolo economico italiano (1958-1963)* (pp. 87-113). Bologna: Il Mulino.
- Maggi, S. (Ed) (2018). Un paradigma per la storia della mobilità. *Storia e problemi contemporanei, 77*.
- Maggi, S. (2021). La mobilità da collettiva a individuale e le origini dello squilibrio a favore del motore (1946-1970). *Italia contemporanea, 295*, 141-164.
- Menduni, E. (1999). L'Autostrada del Sole. Bologna: Il Mulino.

- Ministero dei Lavori Pubblici (1939). *Censimento della circolazione lungo le strade provinciali, le strade comunali in manutenzione alle Amministrazioni provinciali e le strade in gestione provvisoria al Ministero dei LL.PP., gennaio-dicembre 1938.* Roma: Istituto poligrafico dello Stato.
- Mom, G. (2015). *Atlantic Automobilism. Emergence and Persistence of the Car 1895-1940.* New-York-Oxford: Berghahn.
- Moraglio, M. (2009). Lo spazio conteso. In P. Sereno (Ed), *Torino reti e trasporti: strade, veicoli e uomini dall'Antico Regime all'età contemporanea* (pp. 163-189). Torino: Archivio storico della città di Torino.
- Paolini, F. (2004). Gli italiani e la motorizzazione (1950-1974). Appunti per una storia sociale e ambientale dell'automobile. In Giuntini A., & Pavese C. (Eds), *Reti, mobilità, trasporti. Il sistema italiano tra prospettiva storica e innovazione* (pp. 181-203). Milano: FrancoAngeli.
- Paolini, F. (2005). *Un paese a quattro ruote. Automobili e società in Italia*. Venezia: Marsilio.
- Paolini, F. (2007). Storia sociale dell'automobile in Italia. Roma: Carocci.
- (1963). Parcheggi riservati ai clienti dei negozi nelle Città americane. *Le Strade, XLIII* (1), 65.
- Piarc (1910). *IInd World Road Congress, Brussels 1910. Proceedings of the Congress.* <u>https://www.piarc.org/en/activities/World-Road-Congresse-World-Road-Association/Congress-Proceedings/brussels-1910/proceedings-congress.htm</u>
- Piarc (1913). Illrd World Road Congress, London 1913. Proceedings of the Congress. <u>https://www.piarc.org/en/activities/World-Road-Congresses-World-Road-Association/Congress-Proceedings/london-1913/general-report.htm</u>
- Piarc (1923). *IVth World Road Congress, Sevilla 1923. Proceedings of the Congress.* <u>https://www.piarc.org/en/activities/World-Road-Congresses-World-Road-</u> Association/Congress-Proceedings/sevilla-1923/proceedings.htm
- Piarc (1926). *Vth World Road Congress, Milan 1926. Proceedings of the Congress.* <u>https://www.piarc.org/en/activities/World-Road-Congresses-World-Road-</u> Association/Congress-Proceedings/milan-1926/proceedings.htm
- Piarc (1930). VIth World Road Congress, Washington 1930. Proceedings of the Congress. <u>https://www.piarc.org/en/activities/World-Road-Congresses-World-Road-Association/Congress-Proceedings/washington-1930/proceedings.htm</u>
- Piarc (1934). VIIth World Road Congress, Munich 1934. Proceedings of the Congress. <u>https://www.piarc.org/en/activities/World-Road-Congresses-World-Road-Association/Congress-Proceedings/munich-1934/proceedings.htm</u>
- Piarc (1938). VIIIth World Road Congress, The Hague 1938. Proceedings of the Congress. <u>https://www.piarc.org/en/activities/World-Road-Congresses-World-Road-Association/Congress-Proceedings/the-hague-1938/proceedings.htm</u>
- Pironti, L. (1929). Ordiniamo il nostro caos. Il "codice del pedone". *Le vie d'Italia, IV* (1), 32-34.
- Podestà, C. (1962). Alcune osservazioni sugli svincoli nel Sistema delle nuove Strade Interstatali americane. *Le Strade, XLII* (7), 293-307.
- Podestà, C. (1963). Le strade del programma interstatale negli Stati Uniti. *Le Strade, XLIII* (4), 191-203.

- (1917). Relazione del Consiglio per l'esercizio 1916, *Rivista mensile del TCI, XXIII* (4), 169-179.
- (1919). Relazione del Consiglio per l'esercizio 1918, *Rivista mensile del TCI, XXV* (3-4), 42-61.

Riparbelli, A. (1931). Problemi tecnici ed economici del traffico automobilistico in rapporto anche agli altri mezzi di trasporto, *Il Politecnico, LXXIX* (6), 346-357.

- Santini, G., & Biffi C. (1937). *Sesta conferenza per la circolazione stradale. Torino, 20-25 maggio 1937. La statistica del traffico sulle strade extra-urbane.* Roma: Tip. F. Canella.
- Segre, E. (1919). L'ordine nel caos. Le vie d'Italia, III (7), 403-413.
- Sheller, M. & Urry, J. (2006). *Mobile Technologies of the City*. London and New York: Routledge.
- (1917). Strade americane in calcestruzzo di cemento, *Rivista mensile del TCI, XXIII* (4), 202-207.
- Tedeschi, M. (1908). Primo Congresso Internazionale della Strada. Parigi 1908. *Le strade, XI* (10), 145-148.
- Tedeschi, M. (1920). I congressi internazionali della strada. Le strade, II (4), 75-83.
- Tedeschi, M. (1921). Per la cultura dei tecnici della strada. *Le strade, III* (6), 193-196.
- Tegani, U. (1925). New York e il problema della circolazione. *Le vie d'Italia, XXXI* (6), 671-680.
- Urry, J. (2008). Moving on the mobility turn. In W. Canzler, V. Kaufmann & S. Kesselring (Eds), *Tracing Mobilities. Towards a Cosmopolitan Perspective in Mobility Research* (pp. 13–23). Aldershot: Ashgate.
- Vandone, I. (1910). *Census of traffic and tonnage. Methods in use and results obtained. Units adopted.* Paris: Imprimerie générale Lahure.
- Vandone, I. (1912). Per l'indirizzo degli studi d'ingegneria stradale. *Le strade, XV* (1), 1-4.
- Vandone, I. (1920). Problemi di circolazione nelle grandi città. *Le strade, II* (7), 201-208.
- Vandone, I. (1921). L'automobile negli Stati Uniti e nel mondo. *Le vie d'Italia, XXVII* (11), 1227.
- Vandone I. (1925). Statistica del traffico lungo la rete stradale di 1ª classe. *Le strade, VII* (10), 263-264.
- Vandone, I. (1927). Le strade e l'economia del paese. *Le vie d'Italia, XXXIII* (4), 395-403.
- Zambrini, G. (1961). La strada espressa urbana. In Touring Club Italiano, *La viabilità urbana* (pp. 183-210). Milano: Stabilimento G. Colombi.