

Introduction



On the morning of 26 March 1923, newly appointed Italian Prime Minister Benito Mussolini participated in the inauguration ceremony of the construction work for the Milan–Alpine lakes motorway: the first motorway in Europe. That day, Mussolini arrived in Milan in the early morning and visited the Italian Touring Club’s headquarters. Then, driving himself in his official car (as the Italian newspapers were careful to report), he arrived at the nearby village of Lainate, the starting point of the future motorway. There, in front of the very best of the Milanese establishment, the tyrant was handed a pickaxe and gave the soil forty-one solid strikes, an undertaking that must have required a good three minutes to accomplish. Finally, Mussolini made way for the four hundred workers employed for the motorway construction.¹

As in a thousand other cases, this ceremony was mainly propaganda, giving the actors involved a chance to shape the public image of construction activities. Some elements, however, were unusual, such as the detail, unheard of in Italy, of a prime minister driving himself in a motor vehicle. Or the forty-one pickaxe strikes that the newspapers claim Mussolini made: not just a figurative gesture, more of an exhibition of virility. Both of these features were part of a political strategy that featured innovative propaganda elements and political appropriation of technology (such as the motor vehicle and the motorway itself), as well as technology as the main medium of this process of staging the political activities.²

The motor vehicle and the motorway were thus the enabler and enhancer of the tyrant, and of his ability to perform. Indeed, like science, technology was “conceived by the fascist regime as a crucial propaganda element, instrumental to its display and indispensable to legitimizing Mussolini’s power; his image as elaborated by the mass media has a twofold value: he is portrayed while he harvests grapes to evoke a rural dimension; as a motor vehicle driver or a plane pilot to show the symbols of innovation, modernity and progress.”³ It is therefore appropriate that the legacy of that motorway’s inauguration ceremony, and others that followed in the period from 1923 to 1935, stood out in the

public's imagination regarding Italian motorways, and in the historical investigations too.⁴ For the Italians gathered there, for those reading newspapers, and for those passionate about modernity, technology, and speed, the Milanese motorway was a first step toward a visionary innovation made of motorways, cars, and subjugated environments.

This volume analyzes the history of Italian interbellum motorway programs and construction from 1922 to 1943. It is mainly, but not exclusively, a political history that focuses on the motorways' conception, implementation, and symbolic value as landmarks of Italian and European modernity culture in that period, as the technological artifacts assumed an iconic value. We know how artifacts are entangled with politics,⁵ and how politics are entangled with artifacts.⁶ Though this volume puts political actors at the center of the stage, I am aware of the huge benefit that such a history gains by using works from Science and Technology Studies (STS), and naturally in taking advantage of the relevant development of transport history. In other words, the aim of this book is to write the history of Italian motorways in Fascist Italy as a history of Italian fascism: that is, framing motorways as an inner part of the Mussolini regime's attempt to mobilize technocrats and entrepreneurs toward innovative visions of the future, as well as a way of mobilizing the regime by technocrats and entrepreneurs.

This research path needs to keep in mind the visionary and palinogenetic value of the motorway project, and, eventually, scrutinize why the Italian experience led the European debate. The key words of the subtitle—"Technology", "Experts", and "Politics"—define three research paths: technology as a central asset to achieving desired targets (desired at least by a part of society); experts and their relationship with modernity and power; and politics as a third element, considering the highly political value of the motorway projects.

The most recent and inspiring research on Italian fascism has shown how Italian motorway projects were part of a wider plan in which railways, aviation, and bicycles were used to strengthen a vision of modernity within fascist self-representations, giving rise to ideologies of speed and technological nationalism.⁷ As suggested in Griffin's works, what "assured a degree of mass consensus behind fascism was not the utopian vision of its theorists but its promise to most people of a stable system in which to plan their lives as well as access to a lifestyle associated with modern urban civilization (e.g. cinema, sport and mobility), both of those prospects infused with a fervent patriotism."⁸ In this regard, Mussolini's regime openly used transport technologies as political tools, instrumental to building a "banal nationalism."⁹ Indeed, "drawing upon spatial, symbolic, phenomenological and performative

ideas about identity” a national common sense can be created, and this can also occur via “automobility”¹⁰ and its “hybrid assemblage” or “machinic complex.”¹¹ Moreover, as we will see in the following pages, the Italian motorway’s success in the European and international imagination was vast. Given these elements, motorway history assumes a wider perspective, well beyond the transport field, and offers a chance to examine the Italian and European debate on technology and modernization in the interbellum, addressing principally, but not exclusively, the political appropriation of this debate.¹²

The Invention of the “Motorscape”

Peter Merriman’s use of the concept of landscape in investigating—historically—the post–World War II English motorway is also very fruitful for the scrutiny of the Italian interbellum experience.¹³ The ideas of “geographical knowledge,”¹⁴ of *motorscapes* and of *taskscape*s, developed from the 1990s onward, are particularly appealing.¹⁵ The shift toward a banalized mobility, including road-based freight transport, as happened during and after World War I, required new spatial arrangements, and new concepts of motorized vehicles.¹⁶ In the 1920s, automobilism moved toward daily, trivial, and economically driven attitudes (or at least, that’s how it was depicted), calling for time efficiency, and therefore requiring innovative spatial arrangements. World War I introduced the “systems” perspective in automobile mobility,¹⁷ leading to the creation of new infrastructural solutions, in which the imperative of motor vehicle drivers was to perform mobility with the best cost-benefit outcome, with efficiency and efficacy as the main goals. Driving was accountable, targeting time- and effort-saving, which meant the expulsion of the slow (as inefficient) and the old (as out-of-date) was fully legitimate and therefore a top priority for the expert community and for policy makers.

The goal of resource-saving could be achieved by shaping the road according to the vehicle,¹⁸ forging a new transport platform devoted to motorized mobility, which would reduce the efforts of drivers. The final aim was quasi-automatic driving. The hope of “routinized time-space”¹⁹ devoted to motor vehicles was difficult to obtain on ordinary roads, as it collided with the resilience of the old use of public spaces. It took, at least in Europe, some decades to achieve a near-total dominance of ordinary roads by motor cars. However, drivers still needed simplified “routes and places in which shared, synchronized movement, work and recreation [were] carried out,” linking “individual time-space paths, identifying points of spatial and temporal intersection.”²⁰ The motorways

fulfilled this requirement. If we put the *autostrade* (Italian for motorways) in this framework, they were above all an answer to the new needs of a trivialized attitude toward the practice of driving and moving, offering a simplified environment, creating the greatly desired *motorscape* made up of familiar, coordinated, and recognizable elements. In this *motorscape*, the motor vehicle owner of the 1920s no longer had to deal with drunk cart-drivers, slow bicycle riders, and disrespectful pedestrians. The previous model of “aggressive motoring” by wealthy and careless drivers up to World War I, a well-established metaphor of political values,²¹ was suddenly becoming a bottleneck for further automobility development.

The Italian 1920s motorway proposals went further, promising to manage not only the driving landscape, but also the mechanical apparatus, e.g., the motor car itself. The emphasis of engineer Piero Puricelli’s earliest pamphlet on the network of mobile and fixed car mechanics addressed this anxiety over the reliability of the technology. In this vein, the Italian motorway was framed not just as a geographical artifact, but as a complex sociotechnical system, able to deal with the highly diverse needs of drivers. Indeed, the invention, *ex novo*, of the motorway was not just forging the landscape and the everyday use or the technicalities of the vehicle: the *autostrada* was also reshaping the image and the symbolic universe of automobility. Motorways were an invention to domesticate the fierce driving of the antebellum, and at the same time to target new layers of users, namely, middle-class and petty-bourgeoisie (both male and female) elements. Being part of a wider plan to open motorization to new masses, Piero Puricelli—the “inventor” and builder of the 1920s Italian motorways—focused the experience of driving around safety and comfort.

Puricelli himself clearly presented the ambition of the motorway in 1922:

On the motorways there will be just motor vehicles, and our aim is to give the network a level of assistance and comfort that is not yet known in our country, and more inclusive than even the United Kingdom and the United States, from where we got the model.

On the motorway,

- There will be several road inspector’s houses, which will be home to the road inspectors and will also offer frequent points for shelter and refueling;
- The distances, the routes, and the obstacles will be carefully indicated with international signs also visible at night;
- There will be petrol and oil stations, with automatic dispensers and controlled quantity and quality;

- Mechanical and medical first-aid points will be opened, while motorway “mechanics” will patrol the carriageway with “flying workshops” to carry help wherever it is needed.²²

The 1920s motorway users would have mainly come from middle- and lower-middle-class arenas, addressing trivialized needs like daily commuting or more occasional family-oriented vacation trips. This did not kill drivers’ dreams of speeding and wandering, but surrogated and contained them according to petty-bourgeois desires: “The car and its components become a reservoir for societal symbolism, as an icon of a particular kind of domesticated, automotive culture. Around it, a lower-middle-class culture coagulated, celebrating the nuclear family, experimenting with new values of civility . . . and creating a narcissistic, individualist fantasy.”²³ In other words, the *autostrada* offered a domesticated use of cars, but still kept the promise of (risk-free) speed.

Later in the book, I will address the (different) paths of mobilizing a *motorscape* and *taskscape* in the United States and Europe. Here we can state that the *autostrada* emerged as a time-space apparatus, with the role of increasing mundane driving performance. As suggested by Billig, these performances acted as “enhabilitation,” where “thoughts, reactions and symbols become turned into routine habits.”²⁴ In these ways, the motorways both were legitimizing and favored the shift toward a different use of motor vehicles, (i) asserting motorized transport as a national and economic priority, (ii) simplifying its sociotechnical system, and (iii) reassuring drivers about the manageability of motor vehicles’ time-space coordinates. The target was a “desensitized physical experience” of driving.²⁵

A large set of agencies and financial resources was required in order to achieve this aim. After World War I, “we also witness a shift in the way the car was seen by central government, industry, and car and touring clubs alike: whereas in the previous period the car was perceived as a seemingly autonomous artifact providing the motorist with an individualized pleasure . . . , now the automobile was taken up in a system of maintenance by a service infrastructure, and of registration and taxation by a bureaucracy on several governmental levels.”²⁶ It is not surprising to note how the state, especially the Italian Fascist one, backed (to some extent) the motorway proposal both for its practicality and for its symbolism. Altogether, similar to Jeremy Packer’s commentary on the United States, in Europe the “disciplining of mobility organized though traffic safety is . . . a means of keeping the system running smoothly, even as it often works as a means of keeping systems of social inequality intact.”²⁷ Later, automobility domestication and danger

avoidance became a “biopolitical obligation to life,”²⁸ a central element of 1920s political discussion. “Adventure, the secret behind the success of the *emergence* of automobility, threatened to collide with order, the secret behind the successful *persistence* of automobility during the interbellum.”²⁹ In this vein, the *autostrada* could have been enlisted in the fight for control, overturning the anarchist violent and bottom-up use of motor cars to a top-down management of movement: “You do not control people with a highway. But by making highways, you multiply the means of control.”³⁰ This would have led to the creation of good drivers, who could also easily be good and obedient citizens.³¹ The *autostrada* can therefore also be framed as a form of social engineering, and like other social engineers, Puricelli “had a vision of a future society, and ways to form it.”³²

Motorway Politics, between Tradition and Modernity

The 1920s motorway advocates openly targeted the middle class as future drivers, offering that social strata a better future in which they could combine the latest outcome of technology (motor vehicles) with traditional lifestyles (family oriented), and the achievement of aspiration (such as the petty-bourgeois desire to live in the countryside in one’s little villa). Puricelli, in 1922, went further, forecasting that also a cook (*una cuoca*) could one day drive a motorcycle (and avoid any engagement in social revolution, as Lenin wished a few years earlier), if only a “virtuous cycle” could occur. What was needed was

therefore, propaganda on the use of motor vehicles and the prompt replacement of horse-drawn carts. . . . Therefore, a new development of the road network; therefore, new popularization of car use; therefore, a garage in every house; therefore, every family with a car: the clerical worker, the laborer and also the [female] cook with a motorcycle, with a sidecar, with a little truck; therefore, distance annihilated; therefore, country life, well-being, pleasure. . . . Here is the ‘virtuous cycle’ for mankind: the road, the car and prosperity—in those happy countries with motor vehicles for the roads and roads for motor vehicles.³³

Motor vehicles (including here the usually historically forgotten motorcycles) would no longer be a special object, but a “working tool,” to quote the title of a 1921 TCI (Italian Touring Club) campaign in favor of motor vehicles.³⁴ The motor vehicle as a personal mobility instrument; the motorway as a catalyzer of this process, permitting widespread motorization, and housing developments in the countryside, with a

positive cascade effect for individuals and society as a whole. Indeed, for the “road lobby” the motorway had a social and political function. It was Luigi Vittorio Bertarelli, the Italian Touring Club’s influential president, who wrote that with the motorway everyone could finally leave the crowded cities and move to the countryside. The combination of cars (or motorcycles and sidecars) and motorways enhanced the traditional model of the garden city movement, because it was now possible to avoid (at least for those blessed with a motor vehicle) the discomforts and fixed schedules of tramways and trains.

The car owner who has to commute . . . from within the radius of 25 km from Milan takes the train, although the trip to the station, the ride on the train, and the time spent to reach the final destination takes double the time of traveling by car. Those who have to travel 30 or 40 km simply renounce purchasing a car. Those who must travel to have dinner with their families at the countryside villas cannot do so: it would be practically impossible with an average speed of 30, maybe 40 km/h without endangering their own and others’ lives.

[However,] the Varese area [about 40 km from Milan], which has some thousands of little villas for professionals, could be the evening destination of similarly small cars or motorcycles if it were possible to travel without dust, at 60 to 80 km/h, and with complete safety of the drivers and others.³⁵

The motorway would be targeted at middle-class elements, commuting between the city and the countryside, without forgetting the use of the new *autostrada* for tourist and commercial purposes. The motorway became the incubator of a new Italy, modernized but not transfigured, speedy but also idyllic. “Let the car have, for the first time in Italy, its own safe road, so that mankind’s activities can progress more easily and deftly. Let the automobile have its own safe road, so that the humble cart, pedestrian or cyclist can travel more safely and untroubled. Let the automobile have its own safe road, so that those looking for a day of peace and serenity, away from the frantic pace of city life can have a more intimate and complete joy, penetrating and understanding the divine beauty of the Italian landscape.”³⁶

This, then, was the weak link in Italian progress: the awful conditions of the roads. But once transformed, they could become the springboard of modernity. We have here a mixture of modernity and tradition, the technologizing of everyday life and the hope of achieving a pastoral lifestyle. Here comes the pertinence of investigating the fascist relationship with technology, and the manner of framing this link, keeping in mind the categories of an “alternative modernity” and palingenesis.³⁷ As

Jeffrey Herf recalled in his groundbreaking work on “reactionary modernism,” fascism also had to deal with two poles: how could “national tradition be reconciled with modern culture, modern technology and modern political and economic institutions?”³⁸ This dilemma was, as we know, even more relevant after World War I, and naturally it was a crucial point also for Italian fascism. It is not the ambition of this book to investigate in detail the relationship between fascism and technology, but this link is crucial once we analyze 1920s motorway plans. In addressing this research path, we need to say that the role of science and technology in Fascist Italy is a topic largely underrepresented in the national debate,³⁹ and to be fair, dwarfed by the attention claimed by the more notorious Nazi German parallel.⁴⁰

We must consider that the 1920s Italian motorway plans were maybe too visionary and a little bit odd for a country like Italy that was still agricultural. However, they were real, and they had real and tremendous impact: we must take them seriously. In this vein, we need to reframe a banalized view of Mussolini’s regime, which emerges—also in historiography—as a “somewhat harmless dictatorship.”⁴¹ This benevolent and dismissive attitude toward Italian fascism can be extended to Italian technology in the interbellum, in which the Italians are considered possibly creative, but not suited to technological challenges, emerging as romanticized rascals at best.⁴² We have also a dominant historiographical approach, which posits a robust cultural and political dependency of Italian fascism on Nazi Germany: the most recent works, however, have unveiled counterflows, in which Italian Fascist social and technological experiments were followed abroad with great attention, and often replicated. The motorways emerge as the most evident example of the above, going beyond Nazi Germany: aside from other European milieus, we know that English experts were visiting Italian motorways in 1929,⁴³ and that “Puricelli’s plan from 1932 . . . circulated in American policy circles in its revised 1940 version.”⁴⁴

This leads us to frame the role of experts in Fascist Italy. The experience of World War I bestowed a great relevance on technocrats, mainly “for initiating a change in attitude toward a belief that the state has to accept responsibility for the running of the economy and large technological systems.”⁴⁵ This means that also in Italy we can speak of “the hour of the experts” as typical of the whole interbellum Europe,⁴⁶ in which technocrats were striving for long-term planning and implementation of large-scale projects, a line of action which, eventually, also “often made them prone to follow authoritarian political concepts.”⁴⁷ Additionally, focusing on Italian society, “it seems—though more research is needed—that engineers, surveyors, veterinarians and agronomists saw

in the Fascist movement the chance not only to confirm their status *vis-à-vis* the working class, but to improve their status in relation to the older professions.⁴⁸

In this regard, the Italian motorways should not be framed in terms of a cost-benefit analysis, which would lead to economic inconsistency and to transport policy flimsiness. The Italian motorways should, instead, be regarded according to the concept that technology transcends market needs. As for the Nazis, I go so far as to state that also Italian fascists "sought to present themselves to engineers as a movement dedicated to emancipating technology from its misuse by market interests and then to placing it in the service of the state."⁴⁹ In this vein, technology could be a bridge between past (tradition) and future (a transcendent future), in which engineers were the main celebrants.⁵⁰ In other words, the "juxtaposition of permanent technology and evanescent capitalism"⁵¹ was an important theme in the reactionary modernists' milieu and this line of thought seduced Italian technocrats as well, as part of this "myth of renewal."⁵² This myth, this transience, was achievable also via "megalomaniac structures like the planning and building of national freeway networks."⁵³ So, how should motorways be defined within this perspective? How should the desire for speed and thrill be combined with the middle-class search for reassurance, especially after World War I? How can technocrats' ambitions be combined with political goals? How was fascism able to mix all those elements, so apparently distant from each other, and still present such a *pastiche* as a coherent outcome?

It seems to me that Thomas Rohkrämer's work on *Antimodernism, Reactionary Modernism and National Socialism* offers a fitting perspective. While innovation is accepted by fascists as central, they present technology under reassuring aesthetics. This can also be said for Puricelli's program, more precisely once he offered an *understandable modernity*, in which technology was not portrayed as openly encompassing any political flag (in its visual form or otherwise), and in which the choreography of the motorway embeds elements of the past. So "while the industrial sphere was thus supposed to be functional and the political sphere awe-inspiring, the private sphere was aiming to give a feeling of warmth and cosiness."⁵⁴

The technical age was accepted as a practical necessity, but not celebrated in a technical style; people had to fulfill their function, but relaxation and distraction were granted; and culture was consciously employed as an escape from a dreary or horrifying material reality. In this respect, the National Socialists arrived at a more sustainable lifestyle within modern reality than the modernists: in their openness to compro-

mise in all but their core beliefs they accepted that the demands of the modern functional age were only bearable if allowance was made for compensation and escapism.⁵⁵

Puricelli proposed top-notch modernity and speed, but designed the tollhouses constructed along the motorway in quasi-art nouveau style. The order given to the motorway personnel to give a military hand salute to any driver passing through not only reinforced social ranking, but also tempered the motorway's hypermodernity into recognizable (and traditional) performances. So, speaking of Fascist Italy, "the political language in this way carries scientific values, but without referencing technological, logical, concise and rational scientific jargon. On the contrary, the scientific language aims to assimilate the rhetoric of the political language."⁵⁶

Motorways beyond Transport, and Their Impact beyond Italy

This volume aims to address the history of Italian motorways well beyond the history of transport, and well beyond Italian borders. As stated, road renewal was the core of infrastructural enhancement, and it was perceived as a tool to force modernity: good roads were often seen by prominent and ruling groups on both sides of the Atlantic Ocean as fundamental tools to drive economic and social development, as well as a physical and figurative symbol of modernity in the territory and in society. Using Gij's Mom's words, "the emergence of the limited-access highway is presented as a turning point in the history of mobility."⁵⁷ Such infrastructural planning has parallels with the beginning of the twentieth century when an extremely fast, large, and unquestioned diffusion of car culture around the world was observed (unquestioned, at least, by some parts of society).⁵⁸ The implementation of modernity and—most relevant to this volume—of transport modernity, was presented and represented as an unavoidable and linear process, though it had a messy and complex realization. We should not consider the Italian 1920s motorways as projects that were clearly defined, planned, and implemented by several extraordinary political and entrepreneurial figures. On the contrary, this volume centrally assumes that the Italian experience of road renewal was messy, complex, and even accidental: like the early 1920s fascist economic decisions that were indeed "an instrumental action rather than a coherent, long-term policy,"⁵⁹ 1920s motorway programs were short-sighted, regional in scale, and left to the enthusiasm of the local supporters and to the wishes of the empirically based decisions of Mussolini. I assert that Piero Puricelli conceived

motorways by chance (if he actually did invent them, an assertion that I investigate in this book), in an attempt to achieve other goals. Moreover, Mussolini's regime supported those plans because it was pleased—and, sometimes, forced—to by circumstance, including the need to repay some of its sponsors.

In approaching this large theme, we can count today on a broad historiography. The construction of a road system adapted for the use of automobiles has received much attention from historians in the past few decades. The research has offered a wider understanding of the mobility shift that occurred in the twentieth century, exploring promising new fields, such as the social use of the roads, the technical and political aspects of this change and—last but not least—road renewal as a step to generate genuine mass motorization. In other words, automobile infrastructure is no longer seen as granted by invisible hands, but as the result of social and political decisions, as well as the outcome of technical and social attitudes and behaviors. This process was not smooth at all, but involved resistance, compromise, mediation, and failure, and involved many players.

Moving back to the Italian motorways in the interbellum, the above framework gives me the opportunity to offer innovative elements of examination, as well as different axes of interpretation.

1. The motorway projects did not land in an empty landscape; on the contrary, they were the result of the particular Italian situation. A part of the book is devoted to the history of the "ordinary" road network, because it is necessary to understand that network's characteristics and its mismatch with the shift toward new automobilism landscapes in order to fruitfully investigate the motorway proposals.
2. Additionally, the infrastructure contractors emerge as a leading force, driving the action. I call this constellation of actors the "road" lobby (similar to the "road gang" acting in the United States in the 1940s⁶⁰) and I argue that—at least in Italy—the automobile industry (or "car" lobby) was rather tepid about, even opposed to, any monumental road programs beyond the cities. As shown below, further elements must be considered, such as the still-influential Italian Touring Club (TCI), and the Italian Automobile Club (ACI), both of which offered support to the road lobby.
3. On the political side, I argue that during the 1920s the Italian context had an inherent contradiction between the proclaimed will to modernize the transport arena and the weakness of any political action to support this goal. According to the evidence

presented here, the (small) infrastructural gains in 1920s Italy were not a triumphal march to modernity, nor were the different interests subjugated to an intrusive dictatorship that was able to forge a new nation and pave the country with thousands of brand new motorways.

The third point moves us back to the idea that the leading force in envisioning motorways was a group of contractors with strong interests in the road construction field, in alliance with (already) declining but still powerful car user associations.

So while we can expect fascism to be a turning point in the mobility (and, by extension, modernity) field, all the research (on roads, railways, and aviation) shows that although Mussolini's regime did achieve relevant, widely recognized, and visionary outcomes, its role seems much less coherent and comprehensive than previously thought. What fascism did, more modestly, was find acceptable compromises with the leading actors. For a decade after World War I, any step toward the implementation of the road system was linked to the prewar program, while the variegated and ambitious plans on the floor after 1922 were largely designed by industrialists, and not by fascism or central public apparatuses. This is true beyond the motorway case: as Eric Lehmann also noted regarding fascist aviation,⁶¹ far from being a solid, monolithic, and sturdy producer of transport infrastructure and systems, fascism had no clear strategy or master plan, and, instead, showed indecision and contradictory governance. However, as Mussolini understood well, building 84 kilometers of "hyper-modern" motorway shifted attention away from the inadequate (for motor vehicles) 20,000 kilometers of road network.

On top of this, it was not Mussolini or any other Fascist Party member who was the driver of this game. We know that Piero Puricelli, Silvio Crespi, and the Italian Touring Club were—backstage—calling the shots, creating a wide social acceptance of the master narrative in the mobility field, and spreading the gospel of modernity conceived through the rallying cries of speed, technology, and efficiency. The lobby showed significant ingenuity, proposing an extraordinary variety of flexible administrative models, not to mention detailed surveys and construction programs. Those experts had a good grip on the international debate, promoting inquiries into foreign reforms and taking part in global umbrella associations (Italo Vandone, as a TCI delegate, participated as early as 1908 in the first PIARC conference; Silvio Crespi was leader of the League of the Nations transport committee; while Piero Puricelli himself was a resolute business traveler).⁶²

As the history of Italian motorways shows, these actors were surely visionary but they were playing a game that was too big for them. The indefatigable “road lobby” lost the main battle, but left a strong heritage nonetheless. The colossal road renewal plans faced long delays—ultimately implemented only in the 1960s—because of their huge scale. The proposals advanced by those contractors and industrialists were surely innovative, imaginative, and leading the European trends. However, as soon as the fascist system had definite domestic consensus, it exploited (and very generously paid for) the scheme that fit Mussolini’s party’s needs better, with no further consideration of the proponents. The National Road Agency—formed in 1928—allowed the regime to show off its centralized attitude, put an end to seventy years of provincial council control of the main roads, and created a brand new bureaucratic organization, which was easier to lead than the complex and unreliable ministry staff (not to mention the treacherous provincial administrations).

This trivialized and banalized road management did not obscure the visionary idea behind motorways. The media success of the Italian 1920s *autostrade* and their presentation as pacesetters of the future was a favorite theme of fascist propaganda. The Italian air raids on South and North America in the 1930s certainly wouldn’t have convinced too many Italians to become pilots, but they did spread the very idea of aviation as (fascist) modernity.⁶³ In the same way, while motorways did not make every Italian a driver, they made the concept of motor vehicles appealing—no longer a tool for wealthy people, but an everyday device for commercial and practical uses.

But although it was envisioned and developed nationally, the appeal of the 1920s Italian motorways went beyond domestic borders. The Milan–Lakes motorway “became a Mecca for civil engineers as well as municipal or governmental officials interested in a modern road adapted to automobile traffic,” while Puricelli was seen as the “*Spiritus rector*,”⁶⁴ and “Father” (“*père*”)⁶⁵ of all European motorway proposals. This book is focused on the Italian motorways built in the interbellum, but it investigates how they influenced European and non-European discussions. In the 1920s and 1930s, thousands of foreign technicians, policy makers, and journalists visited the Italian motorways, contributing to making them an icon of modernity, the feature that motor car diffusion needed for its rapid growth. Most likely, the audience was waiting for this kind of groundbreaking sociotechnical system, and, at the same time, its success was carefully planned. Already in April 1923, Mussolini and Puricelli, a month after the start of construction, proposed Milan as the seat for the 1926 Permanent International Association of Road Congresses (PIARC) conference. Milan was chosen precisely because of its

role in the motorway programs. The PIARC conference further boosted the international recognition of those projects; fascism obtained a great propaganda success, while Puricelli dreamed of European and non-European motorway schemes (and works, including a 1920s motorway plan for the Beijing–Sea route in China). If, in Italy, Puricelli's star had already declined in 1927, the zenith of that worldwide debate was the period between 1928 and 1932, during which the idea of European motorways was conceived as a political and economic tool. Political, because the building of a European network was seen as a tool to consolidate the ephemeral diplomatic distention following the 1928 Kellogg–Briand Pact; economic, because the 1929 crisis was becoming evident and the motorway construction work could be used as a sort of European New Deal. Puricelli's restless dynamism made Italy part of that plan, but the 1929 crisis was too strong to support those dreams. The rise of Hitler in Germany was the final blow, enclosing each country within its nationalism and putting a European plan out of reach, even though the Nazi regime exploited and developed the Italian example to a level that was unheard of, making *Autobahnen* one of the main pillars of its propaganda.⁶⁶

Who Conceived the Motorways?

There is little doubt about the role of Piero Puricelli in the events surrounding the motorways. He was the motorway "inventor," its enthusiastic prophet, its planner, and its builder. He was more than a road engineer or a talented entrepreneur. Born in Milan, he obtained his degree in Switzerland, took over the family company, specialized in road construction, and made the company into the main Italian player in the sector. During World War I he already understood—a lot better than his Italian peers—that road renewal was relevant as part of a larger discussion about modernization, and through his entrepreneurial activities he built a large and strong network of supporters.⁶⁷ He visited the United States as early as 1919, and later sent one of his assistants there to develop a better grasp on the technical and social developments on the other side of the Atlantic and to be able to imitate the mechanized construction systems in Italy. In the same period, he founded (with the Italian Touring Club) and funded a road materials laboratory (1919); conceived, planned, and built a racetrack in Monza, still in use today (1922);⁶⁸ founded and funded a chair devoted to road engineering at the Polytechnic University of Milan (1925); and coordinated a road renewal inquiry on the entire Italian road network, which included

Build-Own-Operate-Transfer (BOOT) project financing (1925–1927). He had a good relationship with the socialist Milan city administration, and very likely also generously financed Mussolini's party. Puricelli was the president of the city annual fair and later vice president of the Bureau of International Expositions. He was appointed senator in 1929, and in 1940 was made count of Lomnago.⁶⁹ He was also a man with fortunate timing when it came to motorways: a few months after his proposal for a motorway connecting Milan with the Alpine lakes, Mussolini was appointed prime minister. Two weeks after this appointment, Mussolini's government approved (and cofinanced) Puricelli's project. Puricelli not only built the motorway in sixteen months, but soon implemented a project of renewal for 20,000 kilometers of Italian roads.

However, if I have no doubts about Puricelli's extraordinary presence and energy, he was not always passionate about his creation. For Puricelli the motorways had an instrumental business role, which is shown very well in his private letters and confidential reports. By 1925, he was already claiming that the Italian motorway fever could have negative effects on the road renewal programs, while between 1929 and 1931 he was simultaneously fantasizing about mammoth continental European road plans and dismissing many—if not all—of the Italian proposals for new construction as flimsy and inconsistent. So I believe that his motorway projects should be framed first and foremost as a business campaign of personal and professional affirmation: for Puricelli they were an extraordinarily valuable (and successful) public relations strategy, which further boosted his relevance in the Italian and international industrial landscape. This also explains Puricelli's political role, a role that has been forgotten by historiography. Despite the fact that his archives are not accessible, and probably will never tell us the whole story, we can say with confidence that Puricelli acted as a hidden ambassador for Mussolini. We find him visiting foreign dignitaries and even prime ministers of Germany, France, and Austria in the same weeks that diplomacy antennas were twitching. He was in Germany to meet Hitler in 1934 while the Dollfuss crisis affected the diplomatic agenda, and in Paris in late 1935 when the Italian government was promoting French and U.K. neutrality about the forecasted Ethiopia invasion.⁷⁰

Puricelli, naturally, was not alone. He was *primus inter pares* in a very large network, in which it is difficult to differentiate between a real, passionate engagement with modernity and more trivial economic targets. The Milanese economic and political establishment was largely tied up in the 1922 motorway program. The program matched the widespread ideas of speed, efficiency, and novelty, but it also appealed to the desire to open a new period of infrastructural development, explicitly recalling

the golden era of nineteenth-century railway fever. The Milan establishment was also charmed by the idea of being at the core of such a program, not only in terms of entrepreneurship, but also geographically, with Milan at the center of the network. So the motorway programs mirrored the city's ambitions of modernity, dynamism, and up-to-date infrastructure developments. Of course, some entrepreneurs were happier than others to develop motorways: Piero Pirelli (rubber industry) and Ernesto Reinach (lubricant oil) had additional reason to support Puricelli's ambitions. The same can be said about the Milan Automobile Club, or the Italian Touring Club, considering the latter had (and still has) its headquarters in Milan. However, the involvement was broader: the entire Milanese bourgeoisie, as well as the socialist local administrations, rotary club members, and bankers, industrialists from all sectors, top-ranking road technicians, Lombardy Chambers of Commerce, and provincial councils. It is difficult to believe that experienced bankers like Giuseppe Toeplitz considered the motorway to be good business. More likely, they considered Puricelli's proposal as a pie in which to put their fingers, aiming at potential long-term benefits, and maybe fascinated personally by the audacity of such a big vision for the future. As happened for the railway fever in the nineteenth century, in 1922 the Milan–Lakes motorway generated a domino effect and irrepressible enthusiasm: in every city from Naples to Bergamo, local committees mushroomed with the aim of building motorways. However, just a couple of years later, Piero Puricelli found himself unable to control his own creation. And, as early as the late 1920s, Mussolini's regime no longer saw any appeal in financing motorway programs; following the 1929 crisis, new motorways were definitively out of the question.

In comparison with the big vision and multitude of plans, the actual outcomes realized in Italy in the 1920s and 1930s were meager and incoherent, left to the fate and will of local committees and to the power of their patrons (and their limited aspirations and short-term speculations). Altogether, only 500 kilometers of motorway were built, without any real coordination by the central authorities, although Milan was at the center of the embryonic network. After 1933, in the same period that Nazi Germany began a program that overshadowed any previous outcomes, the Italian government found itself constrained to buy back the private motorway companies. The government took on the management of the few motorways that had been built, while Puricelli lost his empire.

The Italian Motorways and Their Historic Legacy

The history of the Italian motorways is still an underdeveloped area. While Puricelli pops up today in many publications dealing with the European technocrats and we have good investigations of the interbellum European motorway lobby, Italian historians have given little attention to the country's motorways. Lando Bortolotti's works, published back in the 1980s and 1990s, are an exception. They were pioneering publications, breaking down the rhetoric of Italian primacy in building motorways (the first in the world), and those texts are still a major source of information on this issue. On his own, Carlo Mochi offered a careful reconstruction of the entire Italian transport policy throughout the twentieth century,⁷¹ while in the past two decades, in parallel to a renewed international debate,⁷² Andrea Giuntini, Federico Paolini, Enrico Menduni, and Stefano Maggi, among others,⁷³ have added to the literature.

The legacy of the 1920s motorway program is controversial: the 1929 crisis crushed Puricelli's companies (although he himself received very generous severance pay). After World War II, he was too involved in the fascist plot to be back on the stage, and most likely not interested in defining a new political role for himself.⁷⁴ In the 1950s, during the launch of the new national motorway programs, the events of the 1920s were an embarrassment due to the involvement of Mussolini. The plans from the 1920s and 1930s were surely on the desks of the new planners,⁷⁵ but the new building season followed other models and rhetoric, and the Italian technicians (usually those from the prewar period) did not need any creation myth to legitimize their actions—even less one as politically cumbersome as Puricelli's.⁷⁶ They looked with admiration at the United States model and the International Road Federation's activities.⁷⁷

The 1973 oil crisis showed the limits of the motorway (and motor vehicle) model, leading to self-reflective analysis. The private companies involved in the motorway business started to show interest in their remote history, which culminated in some self-celebratory volumes and articles devoted to rediscovering the 1920s plans, after carefully removing any political or ideological implications. After a long purgatory, Puricelli was often presented as a visionary, albeit an ingenious and politically clumsy genius.⁷⁸ According to a simplified vision of technology history, motorways were the outcome of a one-man band, Piero Puricelli. Experts and technicians of motorway engineering, such as Francesco Aimone Jelmoni,⁷⁹ a pupil of Carlo Isnardo Azimonti and planner of the Milan–Naples motorway in the 1950s, Giovanni Da Rios, and Savino Rinelli, in their 1970s and 1980s publications, depicted

Puricelli as a visionary entrepreneur, audacious to the point of fearlessness, with a strong vision that was unaccomplished due to bad luck. In this rosy version of his profile, it was only thanks to his 1920s plans and construction that 1950s Italy was able to implement a modern program after World War II. The misunderstandings of Puricelli's contemporaries or even the aversion of the fascist leaders prevented him from reaching his ambitious and idealistic goals.

Engineer Puricelli had from the beginning a realistic and rational concept of the real function of motorways, and foresaw with astonishing clearness the developments and diffusion they should have had. We feel we must say that due to a mix of circumstances and external factors, the prevailing (and not prudent or careful) interference of the political powers of the times [i.e., the Fascist regime] and the enthusiasm generated by the first proposals together mutated the correct implementation of Puricelli's ideas. These were, therefore, incorrectly understood, promoted by means of superficial opinions and poorly considered assessments, which were sometimes malevolent.⁸⁰

For Jelmoni, the inauguration of the first completed leg of the Milan–Lakes motorway in 1924 was a landmark, though its historical relevance was not fully understood. It was in that moment that it was possible to define the true profile of Puricelli: a genius. “Nobody could have imagined what that first short (but for the period, great) motorway would represent. Really, nobody? No, one person understood: a gentleman just in his forties, tall and sharp, with pleasing manners, an open and charming smile that sweetened his severe face; that gentleman who, in a frock coat and top hat, was next to the [Italian] king in the motor vehicle during the inaugural trip from Milan to the lakes: it was the engineer Piero Puricelli, count of Lomnago, the first in the world to conceive of the motorway.”⁸¹

In opposition to these hyperbolic statements, other views of Puricelli's actions soon emerged in the Italian literature, developed in a new season of studies of the fascist period. Lando Bortolotti, after his 1978 book on the fascist housing policy, painted the Milanese entrepreneur critically, depicting him as a champion of arrogant and ruthless speculations, with muddy relationships with the finance world and shadowy dealings. Puricelli was indifferent to the cost of his “bizarre” initiatives because he was backed by ample political protection, including by Mussolini himself. Puricelli was an antihero, ready to suck money from the treasury, cunningly using public resources to implement his lavish—and pointless—motorway programs. The political system was vulnerable to this plot, making it possible to create a useless and meaningless motor-

way network for a country with practically no cars. For Bortolotti, the costs of the disgraceful operation were a burden on the public treasury, while the profits enriched the unscrupulous and swashbuckling contractors. Puricelli emerged as the villain of that period.⁸²

The most recent investigations frame Puricelli in a broader context in which the motorway programs were (correctly) only a part of a wider professional and financial biography. Annabella Galleni and Nicola De Ianni worked on Puricelli's professional adventures, opening a new stage of studies on road renewal in the first part of twentieth-century Italy.⁸³ Their archival research and their historical analysis allow us to better understand Puricelli—his success and his failure. His role as a visionary is confirmed, defining him more as a pathfinder than as a classical contractor, with an international vision of his company in his mind. Puricelli was, in other words, an entrepreneur, able to move easily in the finance salons, with strong contacts with political actors (democratic, socialist, and then fascist), and with international ambitions for his business. However, he was overwhelmed by his ambition, by too many speculations, and, to be fair, by a new financial landscape that emerged after the 1929 crisis.

This Volume

This volume has, like any other book, a history itself. My historical interest in Italian and European motorways is now fifteen years old. I have spent this time reading, exploring historical archives, and discussing the topic with many colleagues. As a major outcome of that activity, in 2007 I published a volume in Italian, through the Turin publisher Trauben—a book that can now be enjoyed in English. However, this volume is a lot more than a translation. After the Italian version was published, I continued to work on the topic, publishing other papers, articles, and essays in Italian and English journals and books.⁸⁴

Therefore, this book includes additional material, newly written, in order to position the Italian case study to an international audience, and to better highlight the relevant international connections, impact, and influences of the Italian motorway programs of the fascist era. In this volume I not only considered the evolution of my research and thought, but also the rich changes that have occurred in the historical debate on roads, transport, and mobility.

The volume is organized in eight chapters, which describe, in roughly chronological order, the Italian motorway history in the interbellum period. As explained above, to better understand the reasons behind

the Italian motorway programs, the first chapter explores the history of Italian roads before motorways, between national unity in 1861 and Mussolini taking power in 1922.

The second chapter describes the early 1920s construction proposals and their outcomes, also presenting the main actors, while chapter 3 focuses on the propaganda uses of this work and on the 1926 International Road Congress (PIARC), which represents the peak of propaganda using Italian motorways. Chapters 4 and 5 discuss the weak elements of the motorway projects, and how the above elements clashed with or integrated into the wider fascist politics regarding transport.

The analysis of a large-scale event like the Italian motorways often results in losing a grip on some details. For that reason, chapter 6 is devoted to a single motorway, the Turin–Milan, detailing a case study and scrutinizing the role of Fiat in the motorway business.

Chapter 7 analyzes the final 1930s crisis in the motorway field and the state's role in covering the debts in order to save its prestige, while chapter 8 explores the late 1930s and the long-term legacy of the interbellum plans.

Finally, the conclusion analyzes the success and the originality of the Italian motorways in a European framework, claiming that Puricelli's proposals were part of a debate about Europe, in which motorways were icons of a political and technological achievement, autonomous and independent of the U.S. and U.S.S.R. models.

Notes

1. "Lon. Mussolini a Lainate inizia i lavori per le autostrade," *La Stampa*, 27 March 1926. See also Italo Vandone, "Il primo colpo di piccone per le autostrade da Milano ai laghi," *Le Strade* 5 (1923), 133–134 (claiming that Mussolini dug about a metric cube of soil!).
2. For a critical assessment of the fascist "aestheticization of politics," see Roger Griffin, *Modernism and Fascism: The Sense of a Beginning under Mussolini and Hitler* (New York: Palgrave Macmillan, 2007), especially 271–278.
3. Lorenzo Benadusi, "Il mito della scienza," in *Storia d'Italia. Annali 26. Scienze e cultura dell'Italia unita*, ed. Francesco Cassata and Claudio Pogliano (Torino: Einaudi, 2011), 157–176, here 162.
4. See Ernesto Ragionieri (and his overstatement of the fascist territorial program), ed., *Storia d'Italia, vol. 4, Dall'Unità a oggi: La storia politica e sociale* (Torino: Einaudi, 1976). For an international framework, see Wolfgang Schivelbusch, *Three New Deals: Reflections on Roosevelt's America, Mussolini's Italy, and Hitler's Germany, 1933–1939* (New York: Metropolitan Books, 2006).
5. Longdon Winner, "Do Artifacts Have Politics?," *Dedalus* 109, no. 1 (1980), 121–136.
6. Bernward Joerges, "Do Politics Have Artifacts?," *Social Studies of Science* 29, no. 3 (1999), 411–431.

7. See Eric Lehmann, *Le Ali del potere. La propaganda aeronautica nell'Italia fascista* (Torino: UTET, 2010); Andrea Giuntini, "Nascita, sviluppo e tracollo della rete infrastrutturale," in *Storia d'Italia. Annali 15. L'industria* (Torino: Einaudi, 1999), 551–616; see also Stefano Maggi, *Storia dei trasporti in Italia* (Bologna: Il Mulino, 2005); Federico Paolini, *Storia sociale dell'automobile in Italia* (Roma: Carocci, 2007).
8. Roger Griffin, *The Nature of Fascism* (London: Routledge, 1991), 79–80.
9. Michael Billig, *Banal Nationalism* (London: Sage, 1995).
10. Tim Edensor, "Automobility and National Identity: Representation, Geography and Driving Practice," *Theory, Culture & Society* 21, no. 4/5 (2004), 101–120, here 102.
11. Mimi Sheller and John Urry, "The City and the Car," *International Journal of Urban and Regional Research* 24, no. 4 (2000), 737–757.
12. Besides the seminal work of Charles S. Maier, *Recasting Bourgeois Europe: Stabilization in France, Germany, and Italy in the Decade after World War I* (Princeton, NJ: Princeton University Press, 1975), it is appropriate to remember here Jeffrey Herf, *Reactionary Modernism: Technology, Culture, and Politics in Weimar and the Third Reich* (Cambridge: Cambridge University Press, 1984) as well as Monika Renneberg and Mark Walker, eds., *Science, Technology, and National Socialism* (Cambridge: Cambridge University Press, 1993) and, naturally, Griffin, *Modernism and Fascism*. Unfortunately, the Italian debate on fascism and modernity and more particularly on technology, is embryonic: see Cassata and Pogliano, *Storia d'Italia*.
13. Peter Merriman, *Driving Spaces: A Cultural-Historical Geography of England's M1 Motorway* (Malden: Wiley-Blackwell 2007).
14. David Crouch. "Introduction: Encounters in Leisure/Tourism," in *Leisure/Tourism Geographies: Practices and Geographical Knowledge*, ed. David Crouch (London: Routledge, 1999), as quoted in Edensor, "Automobility and National Identity," 109.
15. See, among others, Tim Dant, "The Driver-car," *Theory, Culture & Society* 21, no. 4–5 (2004), 61–79; Edensor, "Automobility and National Identity"; Mike Featherstone, "Automobilities: An Introduction," *Theory, Culture & Society* 21, no. 4–5 (2004), 1–24; Jonathan Crary, *Suspensions of Perception: Attention, Spectacle and Modern Culture* (London: MIT Press, 1999); Jeffrey T. Schnapp, "Crash (Speed as Engine of Individualization)," *Modernism/Modernity* 6 (1999), 1–49.
16. Gijs Mom, *Atlantic Automobility: Emergence and Persistence of the Car, 1895–1940* (New York and Oxford: Berghahn, 2015).
17. *Ibid.*, especially chapter 7.
18. Gijs Mom, "Building an Automobile System; PIARC and Road Safety (1908–1938)," Proceedings of the PIARC conference, Paris, 17–23 September 2007, CD-Rom.
19. Edensor, "Automobility and National Identity," 109. See also Sheller and Urry, "The City and the Car."
20. Edensor, "Automobility and National Identity," 109.
21. Kurt Möser, "The Dark Side of 'Automobilism', 1900–30: Violence, War and the Motor Car," *The Journal of Transport History* 24, no. 2 (2003), 238–258, here 242.
22. *Le autostrade da Milano ai Laghi* (Milano: Società anonima Autostrade, 1923), 22.
23. Mom, *Atlantic Automobility*, 648.
24. Billig, *Banal Nationalism*, 42; see also Edensor, "Automobility and National Identity," 113.
25. Edensor, "Automobility and National Identity," 115.

26. Mom, *Atlantic Automobilmism*, 286.
27. Jeremy Packer, *Mobility without Mayhem: Safety, Cars, and Citizenship* (Durham, NC: Duke University Press, 2008), 271.
28. *Ibid.*, 73.
29. Mom, *Atlantic Automobilmism*, 603. Italics in the original.
30. Gillie Deleuze, *Two Regimes of Madness: Texts and Interviews 1975–1995* (New York: Semiotext(s), 2006), 322, quoted in Cotten Seiler, *Republic of Drivers: A Cultural History of Automobility in America* (Chicago: University of Chicago Press, 2008) 144.
31. Massimo Moraglio, "European Models, Domestic Hesitance: The Renewal of the Italian Road Network in the Interbellum," *Transfers: Interdisciplinary Journal of Mobility Studies* 2, no. 1, 87–105.
32. Jon Alexander and Joachim K.H.W. Schmidt, "Introduction," in *Social Engineering*, ed. Adam Podgórecki, Jon Alexander, and Rob Shield (Ottawa: Carleton University Press, 1996), 1–19, here 3.
33. *Le autostrade da Milano ai Laghi*, 9.
34. See Consiglio del Tci, "Per l'automobile e per la bicicletta 'strumenti di lavoro'. Prima parte," *Le vie d'Italia* 7 (1921), 692–700, and "Seconda parte," *Le vie d'Italia* 8 (1921), 803–808.
35. Luigi Vittorio Bertarelli's notes in *Le autostrade da Milano ai Laghi*, 14–15.
36. Piero Puricelli, *Rete stradale per autoveicoli Milano–Lago di Como Milano–Varese Milano–Lago Maggiore. Relazione* (Milano: Umberto Gioni, s.d. [1922]), 10.
37. Thomas Rohkrämer, "Antimodernism, Reactionary Modernism and National Socialism: Technocratic Tendencies in Germany, 1890–1945," *Contemporary European History* 8, no. 1 (1999), 29–50.
38. Herf, *Reactionary Modernism*, 217.
39. For a first approach see Cassata and Pogliano, *Storia d'Italia*; Benadusi's work, "Il mito della scienza," contained therein, deals with this issue.
40. Griffin, *The Nature of Fascism*, 225.
41. See Patrick Bernhard, "Hitler's Africa in the East: Italian Colonialism as a Model for German Planning in Eastern Europe," *Journal of Contemporary History* 51, no. 1 (2016), 61–90, here 66.
42. See, among others, Attilio Brilli, *Un paese di romantici briganti. Gli italiani nell'immaginario del Grand Tour* (Bologna: Il Mulino, 2003).
43. Merriman, *Driving Spaces*, especially the first chapter.
44. Frank Schipper, *Driving Europe* (Amsterdam: Aksant, 2008), 191.
45. Rohkrämer, "Antimodernism, Reactionary Modernism and National Socialism," 30.
46. Martin Kohlrausch, "The Hour of the Experts? Reflections on the Rise of Experts in Interbellum Europe," in *Scientists' Expertise as Performance*, ed. Kaat Wils and Joris Vandendriessche (London: Pickering & Chatto 2015), 67–79.
47. *Ibid.*, 71.
48. Adrian Lyttleton, "The 'Crisis of Bourgeois Society' and the Origin of Fascism," in *Fascist Italy and Nazi German: Comparisons and Contrasts*, ed. Richard Bessel (Cambridge: Cambridge University Press, 1996), 12–22, here 21.
49. Herf, *Reactionary Modernism*, 221.
50. *Ibid.*
51. *Ibid.*, 194.
52. Griffin, *The Nature of Fascism*, 47.
53. Mom, *Atlantic Automobilmism*, 592.

54. Rohkrämer, "Antimodernism, Reactionary Modernism and National Socialism," 47.
55. *Ibid.*, 49.
56. Benadusi, "Il mito della scienza," 162.
57. Gijs Mom, "Roads without Rails: European Highway-Network Building and the Desire for Long-Range Motorized Mobility," *Technology and Culture* 46, no. 4 (2005), 745–772, here 746.
58. A good panorama of "Atlantic" national road policies can be found in Gijs Mom, "Decentering Highways: European National Road Network Planning from a Transnational Perspective," in *Die moderne Strasse*, ed. Hans-Liudger Diel and Hans-Ulrich Schidt (Frankfurt am Main: Campus, 2010).
59. Germà Bel, "The First Privatisation: Selling SOEs and Privatising Public Monopolies in Fascist Italy (1922–1925)," *Cambridge Journal of Economics* 35, no. 5 (2011), 937–956, here 953.
60. Seiler, *Republic of Drivers*, 94. For the "freeway lobby" in the interbellum see also Mom, "Building an Automobile System; PIARC and Road Safety (1908–1938)."
61. See Lehmann, *Le Ali del potere*.
62. On Vandone, see Daniele Bardelli, *L'Italia viaggia. Il Touring Club, la nazione e la modernità. 1894–1927* (Roma: Bulzoni, 2004), 216–217. On Crespi, see Schipper, *Driving Europe*.
63. On the fascist "raids" in South America, see Federico Caprotti, "Overcoming Distance and Space through Technology: Connecting Fascist Italy with South America," *Space and Culture* 14, no. 3 (2011), 330–348.
64. Reiner Ruppman, "The Development of the European Highway Network: A Literature Survey of Studies on Highway History in European Countries," in *From Rails to Roads and Back Again? A Century of Transport Competition and Interdependency*, ed. Colin Divall and Ralf Roth (Surrey: Ashgate, 2015), 275–314, here 278.
65. Schipper, *Driving Europe*, 104.
66. Thomas Zeller, *Driving Germany: The Landscape of the German Autobahn, 1930–1970* (New York: Berghahn, 2010), 48.
67. See Annabella Galleni, "Strade, autostrade e fascismo: un memoriale di Piero Puricelli (1940)," *Imprese e storia* 19 (1999), 47–82; Nicola De Ianni, "Vecchi e nuovi documenti sullo stato industriale," in *La storia e l'economia, volume 2*, ed. Anna Maria Falchero, Andrea Giuntini, Giampietro Nigro, and Luciano Segreto (Varese: Lativa, 2003), 291–316.
68. On the Monza racetrack see Italo Vandone, "Il 'circuito di Milano' nel parco di Monza," *Le vie d'Italia* 8 (1922), 817–824, and Lando Ferretti, "Il circuito di Milano," *Le vie d'Italia* 10 (1922), 966–976.
69. For Puricelli's personal details and his titles see the Italian senate website, which also contains some documents regarding the Milanese entrepreneur: <http://notes9.senato.it/Web/senregno.NSF/ed09445904d7899dc1257114003829b4/c8d9d90adee649064125646f005eca80>, accessed on 6 February 2015.
70. See chapter 7 of this volume.
71. Carlo Mochi, "I trasporti," in the volumes *Annali dell'economia italiana 1923–1929; 1930–1938; 1939–1945* (Milano: Ipsoa, 1981–1984).
72. See Colin Divall and George Revill, "Cultures of Transport: Representation, Practice and Technology," *The Journal of Transport History* 26, no. 1 (2005), 99–111; Gijs Mom, "What Kind of Transport History Did We Get? Half a Century of JTH and the Future of the Field," *The Journal of Transport History* 24, no. 2 (2003), 121–138.

73. For a reference framework about the Italian transportation system, see the Giuntini, Maggi, and Paolini works quoted above. See also Enrico Menduni, *L'autostrada del Sole* (Bologna: Il Mulino, 1999).
74. See again the Puricelli file regarding his (meager) activities as a senator, available at [http://notes9.senato.it/web/senregno.nsf/All/c8d9d90adee649064125646f005eca80/\\$file/1839%20Puricelli%20Piero%20fascicolo.pdf](http://notes9.senato.it/web/senregno.nsf/All/c8d9d90adee649064125646f005eca80/$file/1839%20Puricelli%20Piero%20fascicolo.pdf), accessed on 6 February 2016. He was not back in Italy as late as spring 1946, nor did he oppose the loss of his position as a senator.
75. Giuseppe Pini, "Piano regolatore delle autostrade italiane," *Politica dei trasporti* 5 (1951), 151–157.
76. See, among others, Bruno Bolis, "I piani per il miglioramento della viabilità," *Le vie d'Italia* 3 (1953), 369–376, and Quinto Zechini, *Le strade italiane nel primo centenario dell'unità nazionale* (Roma: Editoriale Firema, [1961]).
77. Menduni, *L'autostrada del Sole*.
78. See the articles published in 1974 in the journal *La rivista della strada* [The road review], then also presented in monographic issues for the Milan University Polytechnic, and finally as essays for the volumes *Le autostrade della prima generazione* (Milano: Spa per l'Autostrada Serravalle–Milano–Ponte Chiasso, 1984) and *Le autostrade della seconda generazione* (Milano: Spa per l'Autostrada Serravalle–Milano–Ponte Chiasso, 1990).
79. For Jelmoni's profile see Giovanni Da Rios, "Francesco Aimone Jelmoni," in *Dizionario biografico degli italiani, volume 72* (Roma: Istituto della enciclopedia italiana, 2004), available at http://www.treccani.it/enciclopedia/francesco-aimone-jelmoni_%28Dizionario_Biografico%29/, accessed on 3 April 2016.
80. Francesco Aimone Jelmoni, "Il 21 settembre 1924, la prima autostrada nel Mondo," *La rivista della strada* 398 (1974), 21–26, here 22.
81. Francesco Aimone Jelmoni, "Autostrada Milano–Laghi (inaugurazione)," in *Le autostrade prima generazione*, 30–34, here 31.
82. Among Bortolotti's main works, it is worth remembering: *Storia della politica edilizia in Italia* (Roma: Editori Riuniti, 1978); "Viabilità e sistemi infrastrutturali," in *Storia d'Italia. Annali 8. Insediamenti e territorio*, Cesare De Seta (Torino: Einaudi, 1985), 289–368; "Origine e primordi della rete autostradale in Italia, 1922–1933," *Storia urbana* 59 (1992), 35–69; "I congressi autostradali internazionali del 1931 e 1932 e le prime proposte di un sistema autostradale europeo," *Storia Urbana* 75 (1996), 5–26; and finally, Lando Bortolotti and Giuseppe De Luca, *Fascismo e autostrade. Un caso di sintesi: La Firenze-Mare* (Milano: Franco Angeli, 1994).
83. See Galleni, "Strade, autostrade e fascismo"; De Ianni, "Vecchi e nuovi documenti sullo stato industriale."
84. Among them, it would be appropriate to refer to my essays on "Transferring Technology, Shaping Society: Traffic Engineering in PIARC Agenda, in the Early 1930s," *Technikgeschichte* 80, no. 1 (2013), 13–32; "European Models, Domestic Hesitance: The Renewal of the Italian Road Network in the Interbellum," *Transfers: Interdisciplinary Journal of Mobility Studies* 2, no. 1 (2012), 87–105; "Real Ambition or Just Coincidence? The Italian Fascist Motorway Projects in Interwar Europe," *The Journal of Transport History* 30, no. 2 (2009), 163–182, and in the same year "Per una storia dell'autostrada Roma–Napoli," *Annale di storia regionale* 3, no. 4 (2009), 243–266; in 2007, "A Rough Modernisation: Landscapes and Highways in Italy in the 1900s," in *The World Beyond the*

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