

# Shaping Motorway Europe: Between War and Peace

Mathieu Flonneau

## Table of content

1. Introduction	207
2. The Roads toward Motorway Dependency	208
3. The Tumultuous and Opportunistic Motorway Transition	209
4. Chronology	213
5. References	213

## 1. Introduction

The European card was the card to play—as M. Lucien Lainé remarked—to win the game. In this case more than any other, it was important not to neglect the mystical side of things, the psychological factor of this human endeavor.<sup>1</sup>

As indicated by the epigraph, which uses a diaphanous teleology of sorts, a motorway is much more than a motorway! “Some have sought to attribute a civilizing importance to the construction of motorways,” noted Philippe Reine in his seminal work from 1944,<sup>2</sup> and it is true that the construction of Europe endowed them with this quality. Their highly political world was defined and codified as a coherent ecosystem for mobility by the World Road Association in 1957.

However, the foregone conclusion underscored by the green signage with which motorways were presented as links between territories and European countries should be put into perspective with their national origins, which became nationalist during World War Two and were accompanied by

---

1 First International Road Congress, Geneva 1931, cited by Sancery, Marcelle: *L'autoroute, voie de la prospérité et de l'unité européenne*, Clermont-Ferrand 1962, p. 75.

2 Reine, Philippe: *Trafic automobile et réseau routier. Les autoroutes en Allemagne, en Italie et en France*, Paris 1944, cited by Sancery: *L'autoroute*, p. 189.

supranational designs of domination. This period coincided with their intellectual construction, in other words their definition on paper before the start of their actual material construction.

## 2. *The Roads toward Motorway Dependency*

The intentionality and awareness of the motorway process was consequently in full effect, as the two decades between 1935 and 1955 saw the emergence and diffusion of institutional and technocratic measures for importing and adapting—albeit with some syncretism—foreign and especially European models, in this case Italian and German ones.<sup>3</sup> This phase of the history of motorway networks was indeed marked by an intense circulation of models for road traffic and techniques,<sup>4</sup> in addition to the national considerations that were often entangled with them.<sup>5</sup> A new general framework was built, from the founding of the Permanent International Association of Road Congresses (PIARC, which became the World Road Association in 1995) in 1909 after the Paris Congress of 1908, to the Milan Congress in 1926, which truly defined the motorway, in addition to the revelatory invention of l'Union Routière de France (French Road Union) in 1935, whose motto from the very outset — “*Route fréquentée crée prospérité*” (busy roads create prosperity) — did not emphasize the necessity of motorways.<sup>6</sup> The landscape was radically changed by the rapid acculturation of

---

3 On the contemporary American model see Seely, Bruce E.: *Building the American Highway System: Engineers as Policy Makers*, Philadelphia 1987; Ibid: “‘Push’ and ‘Pull’ Factors in Technology Transfer: Moving American-Style Highway Engineering to Europe 1945 – 1965,” in: *Comparative Technology Transfer and Society*, 2/3 (2004), p. 229 – 246.

4 See Gardon, Sébastien: “Pour une histoire des circulations sur la circulation”, in: *Métropoles* 6 (2009); Passalacqua, Arnaud / Schipper, Frank: <https://metropoles.revues.org/4053>; Schipper, Frank: *Driving Europe, Building Europe on Roads in the Twentieth Century*, Amsterdam 2008; Badenoch, Alexander / Fickers, Andreas (eds.): *Materializing Europe: Transnational Infrastructures and the Project of Europe*, 2010.

5 The example of Czechoslovakia bears mentioning in this dual national and international sense.

6 Which is to say the year after the Munich Road Congress and the enactment of the French coordination law; Ďurčo, Michal: “The shift in Slovakian road planning from Austria-Hungary to Czechoslovakia”, in: *Encyclopédie d'histoire numérique de l'Europe* [online], published on 26/06/20. Permalink: <https://ehne.fr/en/node/21300>.

automobile technology coupled with the standardization of ecosystems (i.e., its political and geopolitical impact), as well as the enacting and learning of driving rules, as demonstrated by Codes de la route (Motorway Codes) in France in 1921.

At the same time, the universal presence of roads raised questions for nations everywhere with regard to the form they would take. In France, this was to an extent “interfered with” by the debate surrounding the coordination of transportation, which was rekindled by the issue of motorways.<sup>7</sup> The motorway option, which was sketched out in the early 1920s and for a time was seen as a pacifier of international relations — especially as part of the Geneva Spirit movement — returned in a different key, one that was connected to foreign experiences.<sup>8</sup> The First International Road Congress was held in Geneva in 1931, with Albert Thomas, the director of the International Labour Office, speaking in person.

### 3. *The Tumultuous and Opportunistic Motorway Transition*

As is often the case in history, periods of crisis—and even more so of war—can untangle complex questions that the status quo of times of peace cannot elucidate.

In 1944, the jurist and senior civil servant Philippe Reine wrote the following regarding such roads, which remained unknown in France at the time:<sup>9</sup> “The situation a few years ago was not as evident, which is why one

---

7 Neiertz, Nicolas: *La coordination des transports en France de 1918 à nos jours*, Paris 1999, p. 740. See our review in: *Annales. Histoire, Sciences Sociales* 6 (2001), pp. 1394 – 1396.

8 Marcelle Sancery’s book (*L’autoroute, voie de la prospérité et de l’unité européenne*) includes information regarding this crucial congress. Also see Schipper: *Driving Europe*.

9 The uncertainty of the vocabulary is one constant of the road debate. See Desportes, Marc: *Paysages en mouvement*, Gallimard 2005; Desportes, Marc / Picon, Antoine: *De l’espace au territoire. L’aménagement en France XVIe – XXe siècles*, Paris 1997. On the genealogy of associated road forms, see Desportes, Marc: “The History of Highway Nodes,” in: *History and Technology* 8 (1992), pp. 247 – 261; Lemone, Bertrand / Mesqui, Jean: „Un musée retrouvé, le musée des travaux publics 1939 – 1955“, in: *Ministère de l’Équipement, du Logement, des transports et de la Mer* (ed.), 1991, p. 157. In 1955 the building was allotted to the Conseil

can speak, without arriving at a clear conclusion, of an opportunity for building motorways.” His pioneering study sought to provide information about a subject that remained, in his own words, “widely unknown,” one that was driven by “voices crying in the desert”<sup>10</sup> that had previously been on the margins of public policies. One had to wait for the state’s resolute engagement on the topic with the essential law of 1955—and especially on programs that relied massively on private financing, with the creation of semi-public concessionary companies during the 1960s—for motorway civilization to truly be born in France.<sup>11</sup> This chronology of events suggests that if there was a French manner of converting motorways, it did not emerge for another fifteen years after World War Two.

At this stage, the genealogy of motorways calls for being broadened geographically, as well as for being resituated within socio-technical legacies and roads toward dependency. Despite early and occasional attempts in the United States or Germany, it truly emerged as an innovative road network in Italy in the early 1920s. The word used in French—at times hesitant in matters of terminology—was incidentally the translation of the Italian term (*autostrada*) used for the new continuous circulation road between Milan and the Great Lakes region, which was conceived by the engineer Piero Puricelli and inaugurated by King Victor Emmanuel III on September 21, 1924. Reserved exclusively for automobiles for reasons of safety, these parallel one-way restricted-access roadways saw their technical characteristics formalized during the Fifth Road Congress held in Milan in 1926.<sup>12</sup>

One of the reasons given in France for rejecting the motorway and maintaining and developing the former system was related to the history the

---

économique et social (Economic and Social Council). The work by Geneviève Zembri-Mari also bears mentioning: *Maillage autoroutier et territoire. Permanences et mutations du modèle français de développement autoroutier*, ENPC doctoral thesis 1999.

10 Sancery: L’autoroute, p. 12.

11 See Abraham, Claude: *Les autoroutes concédées en France. 1955 – 2010*, Paris 2011, p. 183.

12 On Italy see Moraglio, Massimo: *Driving Modernity: Technology, Experts, Politics, and Fascist Motorways, 1922 – 1943*, New York 2017; *Ibid.*: “Highway Network in Italy and Germany Between the Wars: A Preliminary comparative Study”, in: Mom, Gijs / Tissot, Laurent (eds.): *Road history: Planning, Building and Use*, Neuchatel 2007; the following articles also deserve consideration: *Ibid.*: “A Rough Modernisation: Landscapes and Highways in Italy in the 1900s,” in: *Athens OH* 16 (2008), p. 108 – 124; *Ibid.*: “Real ambition or just coincidence? The Italian fascist motorway projects in interwar Europe”, in: *The Journal of Transport History* 19 (2009); *Ibid.*: “Transferring Technology, Shaping Society. Traffic Engineering in PIARC Agenda, in the early 1930s,” in: *Technikgeschichte* 19 (2013).

country set out upon in the initial phases of its demonstration. Its conclusions nevertheless came up against an apparently timeless legend, namely the pre-existence in France of the “the world’s finest network.”<sup>13</sup>

For that matter, amid the uncertainty of the technical vocabulary, the “best French roads” were referred to as *auto-routes* (motorways).<sup>14</sup> As roads designed for high speeds, motorways had not yet been truly defined, except by the textile entrepreneur Lucien Lainé assisted by Pigelet, the head engineer from the Ponts-et-Chaussées, both of whom were behind projects in Northern France:

The motorway is a road exclusively reserved for motor vehicles that does not pass through inhabited centers, crossing below or above ordinary roads, and accessible from these roads in specific areas, formed by straight lines connected by curves with large radiuses, in which all provisions have been made for perfect visibility, optimal stability, and ordered circulation.<sup>15</sup>

Later on in January 1943, the “motorway dispute” opposing “*philo-auto-routiers*” (motorway lovers) and their “enemies” in the automobile press—and at *La vie automobile* in particular—sketched out an alternative: “The rehabilitation of our road network. The case against golden roads.” An illustrated brochure, apparently authored by Georges Gallienne,<sup>16</sup> was published at the time: “French motorways, a future problem.” Charles Faroux, a talented journalist and eminent figure in the automobile world, vigorously opposed this assumption:

The push in favor of ‘Golden roads,’ to use Georges Duhamel’s colorful expression, is exerted solely through a few financial groups who could do no better than choose as spokesperson a man who wanted to regain his...virginity by working for these Transports Routiers, for whom he was once their worst enemy.

Reine then cited other arguments prevailing at the time:

The defenders of motorways are none other than shady wheeler-dealers with a single ambition, eager above all to secure the privilege of building the new roads, as well as the power to collect the corresponding revenue.

- 
- 13 This same argument also appears in Antonini, Jules: *Le Rail, la Route et l’Eau*, Paris 1937.
  - 14 Yves Le Trocquer, the former minister of Travaux publics (Public Works) and a senator from the Côtes-du-Nord, still spelled it with a hyphen in his book: *La route et sa technique*, chapter “Les questions du temps présent,” Félix Alcan, 1931.
  - 15 Definition used by Reine in the *Bulletin quotidien d’études et d’informations économiques*, 4 August 1942. The role and innovative initiatives of Lucien Lainé, a textile industrialist from Beauvais who was not an engineer, deserve close study.
  - 16 He would serve as the future president of l’Union Routière de France and was also the mayor of Chambourcy.

It should be noted that in his book, motorways are discussed only in part 3, entitled “Building The First Motorways of Europe: Italy,” and in part 4, “Building a Comprehensive Motorway Program: *Autostrada* in Germany.” French motorways first appear only on page 287 in part 5, which is entitled “The Building of a Partial Motorway Program: The Motorways of France.” Toward the end of the book, in chapter 2 of part 5, after a lengthy reflection he directly raised the question: *Should motorways be constructed in France?* The question is explored prudently and with no clear-cut answer given the absence of what some — preoccupied with scientifically proving the necessity of motorways — subsequently called the “motorway coefficient.”<sup>17</sup>

The German model served as the standard, with the Autobahn being a constant reference. Chancellor Hitler kicked off his policy on September 23, 1933 in Niederrad on the Frankfurt-Mannheim-Heidelberg section,<sup>18</sup> but the inspiration for the great Germanic network HAFRABA<sup>19</sup> stretched further back, with Reine tracing them in his general conclusion back to the very sources of German economic dynamism: „Inexpensive, rapid, and safe transport of people and merchandise is one of the most important levers of national well-being and civilization in all of its forms,“ wrote Frédéric List a century ago with the recent arrival of railroads in mind. The same sentence could quite rightly be applied today to motorways.

To conclude, it should be noted that these war years made a decisive contribution to the development of the technical object that is the “motorway,“ whose national, social, political, and geopolitical impact should under no circumstances be obscured.

---

17 Reine based his book on data such as network density (France 115 km of roads per 100 km<sup>2</sup>, 52 in the United States, 39 in Germany, 57 in Italy, 90 in Great Britain, 73 in Holland, and 18 in Spain) and the number of cars per kilometer of road (3.5 in France, 6.4 in the United States, 9 in Germany, 57 in Italy, 9 in Great Britain, 6 in Holland, and 1.4 in Spain).

18 On the German model see Ziegler, Volker: „Les Autoroutes du IIIe Reich et leurs origines“, in: Cohen, Jean Louis (ed.): *Les années 30. L'architecture et les arts de l'espace entre industrie et nostalgie*, Paris 1997. Zeller, Thomas: *Driving Germany: The Landscape of the German Autobahn. 1930 – 1970*, Berghahn 2010; Richard Vahrenkamp: *The German Autobahn. 1920 – 1945: Hafraba Vision and Mega Projects*, Lohmar 2010.

19 The origins of HaFraBa, which was founded in 1928, go back to 1926: *Verein zur Vorbereitung der Autostraße Hansestädte – Frankfurt – Basel*.

#### 4. Chronology

- 1924, first motorway built in Italy.
- 1926, PIARC Congress and “motorway charter.”
- 1931, First International Road Congress in Geneva.
- 1933, Hitler inaugurates the Frankfurt-Mannheim-Heidelberg section.
- 1935, public utility declaration for the Western Paris motorway.
- 1955, French law on the status of motorways.
- 1957, the World Road Association provides an international definition for motorways.
- 1970, inauguration of the Lille-Marseilles motorway
- 1975, European agreement on major international traffic routes.

#### 5. References

- Flonneau, Mathieu: “‘Routes en or’ et ‘automobile pour tous’. Adosser l’archéologie des autoroutes françaises à l’horizon européen,” in: Bouvier, Yves / Laborie, Léonard (eds.): *L’Europe en transitions. Energie, mobilité, communication XVIIIe – XXIe siècles*, Nouveau Monde 2016, p. 191 – 226.
- Moraglio, Massimo: *Driving Modernity: Technology, Experts, Politics, and Fascist Motorways, 1922 – 1943*, Berghahn Books 2017.
- Schipper, Frank: *Driving Europe, Building Europe on Roads in the Twentieth Century*, Amsterdam 2008.
- Vahrenkamp, Richard: *The German Autobahn 1920 – 1945. Hafraba Visions and Mega Projects*, Lohmar 2010.

