Chapter 2
Myths of the European Network: Constructions of Cohesion in Infrastructure Maps
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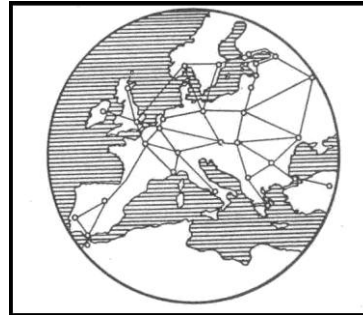

Figure 2.1

Title page, *Länderkarten des Europäischen Fernsprechdienstes*, Berlin, 1928. This image shows an idealized network: it does not correspond to any of those portrayed in the book.

Here's Europe wrinkled with new boundaries. But never you mind that... here Europe is.

- Thomas Cook & Son, 1924[1]

The concept of a European road network is an old one... ... and it had complex infrastructure too.

- European Roundtable of Industrialists, 1989[2]

Introduction: an interruption

At the start of the 1970s, the energy committee of the United Nations Economic Commission for Europe (UNECE) set out to create an 'International Map of Gas Transmission Networks in Europe'. As is common practice in assembling such maps, the committee asked every member nation to submit a map of its own gas network, conforming to certain specifications of representation and scale. Turkey duly supplied a map for the second edition that detailed its gas 'network': a single pipeline, 10cm in diameter, stretching 130 km between three cities on the 'European' side of the Bosporus (see Figure 2.2). The accompanying letter acknowledged that this 'network' might not merit inclusion in such a lofty project, stating drily, '[i]t is up to you to decide whether to include it in the revision work being undertaken.'[3]
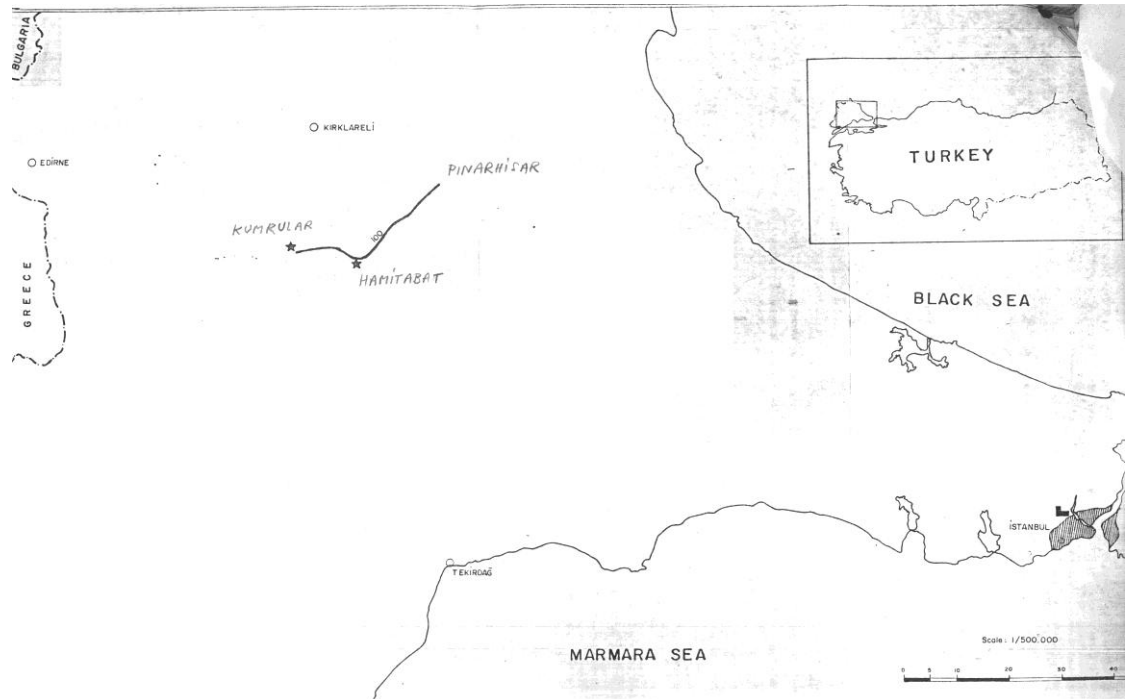
Figure 2.2 Turkey's submission for the UN ECE's International Map of Gas Transmission Systems in Europe, 1980. Source: UN archives

From the map, it is hard to interpret the actual intent of its makers. Was it only an honest report, submitted in the spirit of international participation and co-operation? Was it meant to deflect international interest away from Turkey's resources or conversely to attract attention to it as an 'empty' place worthy of 'development' and assistance? Was it the result of a misunderstanding of what was meant by 'Europe', only showing pipelines on the 'European' side of the Bosporus? Whatever its intent, the map can certainly be read as an interruption of the entire project of mapping the European network. Not only is its 'network' not connected to 'Europe', it seems to lack any relation to the territory in which it is situated: it neither connects major cities nor fills the space provided. It seems *out of place* in the project and raised the question of whether it should be included at all.

To an extent, this map reveals the difficulties that have plagued mapping projects since the so-called 'cartographic revolution' of the sixteenth century: namely the problem of bringing together a series of local knowledges into an apparently universal framework. As David Turnbull argues, maps have been one of the key instruments by which

> the motley of scientific practice, its situated messiness, is given a spatial coherence through the social labour of creating equivalences and connections. Such knowledge spaces acquire their taken for granted air and seemingly unchallengeable naturalness through the suppression and denial of the work involved in their construction.[4]

In this particular map, bringing Turkey into the harmonized knowledge space of the map (by fitting local data to the prescribed scale and map specifications) has not suppressed but rather revealed other forms of 'messiness': a disconnection between network practice and territorial practice that shows the contingent nature of both.

By attempting to reconcile their conceptual tensions, network maps act as important mediators within and between the material, institutional and discursive frames of European infrastructures.[5] On the material level, maps are media that represent material structures in a widely legible code, asserting a series of relations beyond those immediately visible from any specific point. They form a key means by which human actors within a system or territory co-ordinate and harmonize system activities in time and space. In this way maps also mediate between the material and the institutional. Maps are used to circulate standardized knowledge within institutions such as the UNECE, as well as mark off the boundaries of institutional power and knowledge to both internal and external viewers. Finally, within and beyond these frameworks, maps are components of discourses, shaped by and shaping the series of practices and beliefs surrounding the spaces and networks they represent.[6] Maps are, as I will show, one means by which institutions, networks and/or nations perform European-ness and also a means by which disparate national and/or local regimes and structures perform as a unified network.

In what follows, I use maps of European networks to explore historically the relationships between technological infrastructures, national territories and ideas and experiences of Europe.[7] My goal is neither to provide a thorough history of European network cartography nor to elaborate on spatial theory. Instead, acknowledging the long-standing and widespread tensions that have existed between notions of European space and beliefs about technological networks, I want to present a set of important texts and analytical tools to show the recurring strategies for addressing or reconciling those tensions. To remain in spatial metaphors: this essay is not meant to be a map, but rather an orientation and initial landscape survey. I will present some useful lenses for observation, train them on significant points in the landscape and make suggestions for how we might travel between them meaningfully and usefully.

The assumption that infrastructures and territories are more or less naturally linked has remained one of the dominating ideologies in the Western world. As Graham and Marvin point out, infrastructures 'are believed to bind cities, regions and nations into functioning geographical or political wholes. Traditionally, they have been seen to be systems that require public regulation so that they somehow *add cohesion* to territory, often in the name of some "public interest"'.[8] In the nineteenth and early twentieth centuries, the consolidation of state-wide monopolies over energy, transportation and communication networks operated under this assumption and set about to 'energize' national territories by integrating them more thoroughly into networks.[9] To this day, cohesion of national territory is an argument for infrastructural development that needs little further elaboration.[10] However, as Andrew Barry notes, '[i]f the territorial boundaries of states are generally fixed, zones of technological circulation are not.'[11] Transport and communication technologies have circulated transnationally via engineering communities, not to mention material links between nations, since the initial embedding of these systems in societies. Similarly, the idea that infrastructures will bind territories together has not been limited to the national arenas, but has also been powerful in movements for European integration and unification. The Enlightenment view of transport and communication networks as the circulatory systems of a body is a particularly persuasive expression of this sort of 'oneness' of infrastructure and territory. Besides the material connections between people and nations that they have created, lines of roads, rails and electricity wires crossing borders have served as powerful metaphors and visual symbols of international co-operation and European identity. The logic at work in

much of the drive to build European infrastructures has been summed up neatly by J. Peter Burgess in his analysis of Robert Schuman's discussions of the European Coal and Steel Community: 'An empirical unity – a *de facto* – unity is necessary to preserve, defend, and cultivate a spiritual one, and, inversely, it is the *de facto* unity, the assembly of empirical realities proper to the nations and ethnic groups of Europe that gives rise to the spiritual unity so *idealistically* evoked by Schuman.'[12]

By always defining one in terms of the other, such chicken-and-egg logic of European unity acknowledges yet talks around the ways in which neither Europe nor its various infrastructural networks have ever been terribly cohesive. Defining Europe, whether materially, spatially or spiritually, has been a matter of constant ideological struggle and shifting boundaries.[13] The process of building networks in Europe has been particularly diffuse and contested, involving a wide range of national and international actors, often with varying and conflicting visions of the networks they are building. As Latour insists, a network is also 'local at all points'.[14] Even when transnational links between networks have been built, such as in the recent cases of the Channel Tunnel and the Öresund Bridge, but also in older cases such as the Gotthard Tunnel in Switzerland, their meaning as local projects, bilateral links or European network nodes has been unstable and contested.[15] Many of the networks that supposedly unite Europe also transcend any cohesive geographical notion of Europe and uneven access within those spaces results in internal 'splintering' of localities.[16] As the internal boundaries between EU member states have gradually become more porous through the rise of a 'network Europe' characterized by instantaneous flows of people, goods and capital, more attention is being paid toward the hardening and networked proliferation of 'external' boundaries and (re-)assertions of territorial space.[17]

These problems of space return us to the problems of maps, and in particular of those maps that have sought to portray the large and fragmentary constructions of Europe and infrastructures in the same frame. In spite of what EU officials would occasionally have one believe, various material infrastructures have purported in one way or another to be 'the European network' long before the process described as European integration began.[18] The role and power of maps in shaping ideas of nations as well as ideas of Europe has been well-documented.[19] Similarly, as noted, the connection between the growth of transport and communication infrastructures in strengthening ties both within and between nations in Europe has been frequently asserted. Maps of networks, particularly transport and communication networks, thus form an important, and largely underexplored, site where the ideologies and tensions surrounding European networks become visible.[20] Maps' two-dimensional representational framework presents an enduring code of representation that requires strategic simplifications and silences in order to reconcile the complex relations they seek to describe.[21] These representational devices, in turn, guide and shape network practices.

To make these processes visible I will proceed in two parts here. In the first part, drawing on analytical tools from recent critical engagements with maps specifically, and space in general, I will point to various ways in which the cohesion of infrastructures and the cohesion of 'European' space have been co-constructed through maps. This will be based on observations drawn from a broad survey of maps collected over the course of research on a number of different networks.[22] In the second part, I will look at two cases of how cartographic myths of the European network have been employed in specific contexts and at different levels. One

highlights the role of maps in the planning and partial execution of a single road-building project in the interwar period to show how a number of spatial visions of European networks flowed into and out of the processes of construction; the second examines maps of European road and rail networks made for tourists during the Cold War to show how enduring visions and material links were embedded within the divided geopolitical framework.

European networks as myths

In recent years, critical engagement with maps, particularly following on from the work of J.B. Harley, has led to a general understanding of them not as disinterested reporting of facts, but as 'representations of belief and ideology – rooted in particular cultures and institutions.'[23] Much of this critical understanding has been based around the semiological analysis of maps' functioning as myths, defined by Roland Barthes as 'second-order signifiers' that mobilize representations of historically contingent circumstances and events as forms that signify them as universal, natural and/or disinterested fact.[24] Maps not only represent the physical relations of objects in space, they also select them, frame them, bound them, name them, and assert the co-presence of their various disparate elements as natural and significant.[25] As Harley has pointed out, the expert knowledge of cartography, much like that of engineers, makes 'black boxes' out of many maps that mask their ideological agendas by appearing to be purely products of neutral technical practices and standards.[26] At the same time, maps assert power over space, not least through their linkages to notions of territory.[27] By exploring a map's various silences, ambiguities and margins, analysts seek to de-naturalize its various elements to see the various ideologies at work through them.

While I will draw on such semiotic tools to analyse the maps in question, I also agree with post-structuralist critiques of such approaches, which stress that they are often so focussed on 'de-mythologizing' maps in a 'search for conspiracies' by the mapmakers that they overlook maps' inter-textual and ambiguous natures.[28] In seeking to account for the ways in which meanings of places and spaces are generated and practiced, Rob Shields looks to a more dynamic model of the way specific places and spaces acquire mythical meaning through the accumulation of 'place-images' and 'space-images.'[29] These are partial, and often exaggerated, but through practice, '[a] set of core images forms a widely disseminated and commonly held set of images of a place or space. These form a relatively stable group of ideas in currency, reinforced by their communication value as conventions circulating in a discursive economy'.[30] Maps act as place and space images by ordering representations of various places and spaces in relation to each other with regard to a number of binary oppositions such as central or peripheral, connected or disconnected, natural or civilized, or indeed, European or non-European. The truth value of maps, which includes their mythical persuasions, grants them particular currency in reinforcing or transforming the myths of the various places they represent. At the same time, being alert to the disjunctures and ambiguities between place and space myths can draw attention to various realms for resistant identity formation. Such insights help us to understand maps as integral parts of changing material, institutional and discursive assemblages that are structured according to evolving regimes of practice.

To be clear: in stressing these additional layers of maps' meaning, my point is not about how or whether maps 'lie' or misrepresent material realities, nor that they operate in a symbolic sphere somehow divorced from material or spatial practices.[31] Quite the contrary, my argument is that maps offer a means of understanding the complex material, institutional and discursive assemblages of European networks because they are *part of* the 'reality' of infrastructures. Highlighting the ideological and symbolic dimensions that structure infrastructures' design and use sheds important light on how such systems have been embedded and contested over time. Bearing this in mind, I will sketch here briefly some of the most frequently recurring mythologies and point to some of their ambiguities and rhetorical uses.

Europe is where the network is. One of the most noted aspects of maps is their power to name.[32] Unlike nation-states, the absence of a precise hegemonic definition of European space affords network maps greater persuasive power in claiming to be 'the European network', particularly when the network seems to be their primary object. This is visible, for example, in a map of 'Europe's Autobahn Network' from a German book on roads from 1959 (Figure 2.3).[33] While showing a space that is mostly filled by Germany – notably with its pre-WWII borders – the map claims to be of 'Europe's' network. Few readers of the map would consider the space described as all of Europe, but by claiming that the network is 'European' it claims definitively that the space it shows is central to it. The rest is off the map, unimportant, *less European*. An overview of collected system maps shows that the spatial definition of Europe as expressed through maps of its infrastructure reflects strongly the many competing notions of where Europe is. The much-problematized Eastern boundary of Europe is defined differently from map to map, with maps sometimes including and naming Russia and showing Moscow as included in the network; sometimes all of Turkey is present, most often half or merely its West coast, sometimes including only Istanbul. The same is also true in the other cardinal directions: Northern Scandinavia, the Iberian Peninsula, Southern Italy and North Africa are routinely out of frame. Notably, this range of framings of European networks, both in the maps of planners and in maps produced by external organizations such as the tourist maps below, seems to change little over time. To be sure, the national boundaries, when they are shown, usually (but not always) change with the changes in politics, but in matters of framing, presence or absence of national boundaries, portrayal of natural features, there are no readily identifiable periodic shifts. As I will show, even during the sharp divisions of the Cold War, both visions and practices of cross-'Curtain' networks persisted.[34]

Figure 2.3 'The European Motorway Network' from Herman Schreiber, *Sinfonie der Strasse,* **1959.**
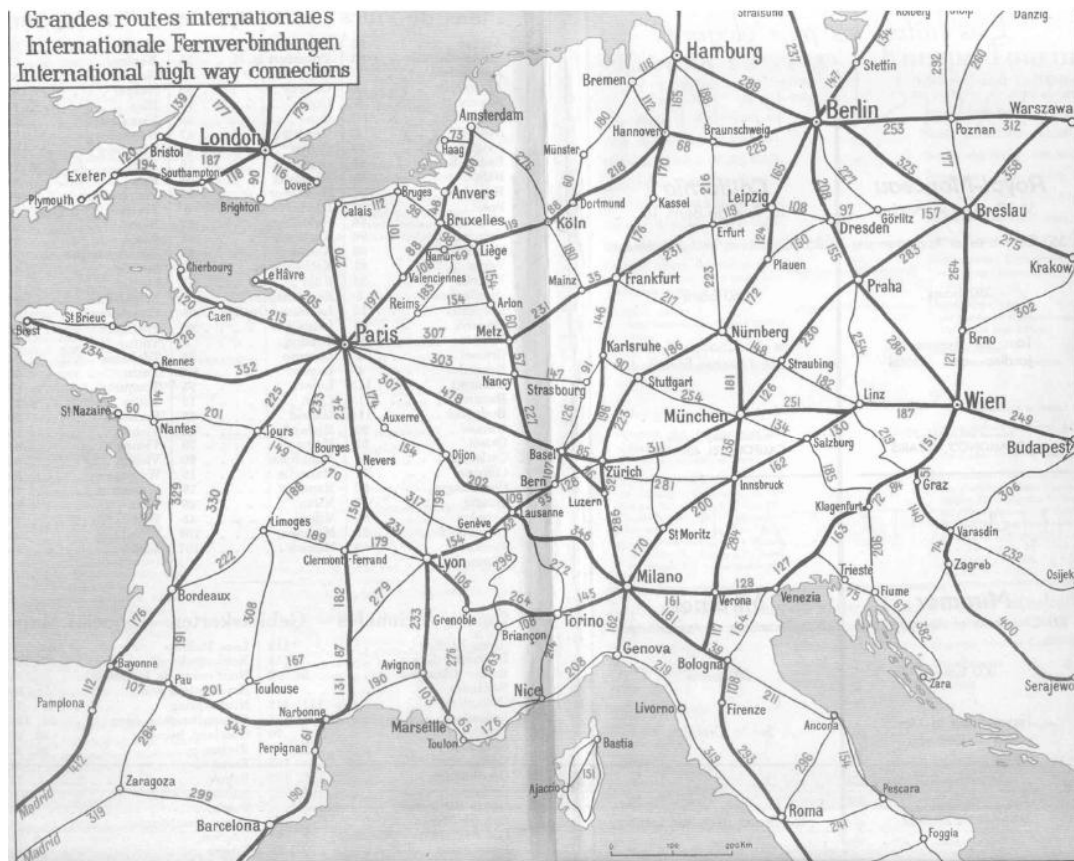
Figure 2.4 The European road network, *Europa Touring,* Hallwag, 1929

Networkedness. Lines on a map suggest connection and even flow between all points.[35] As Barry points out, networks have become not only a commonplace entity within society, they also function as metaphors for it.[36] Maps can powerfully emphasize such images, as in the classic example of Henry Beck's London tube map, which did away with scale and incorporated the London suburbs into an image of a compact, well-connected city (I am surely not alone in having cursed the name of Henry Beck whilst hurriedly trying to get between trains at a neat-appearing 'node' on his map).[37] At the European level, many such maps of networks were not normally produced by the system administrators, but by third parties with a vested interest in portraying the various systems as a transnational network. In the mid-nineteenth century, British mapmaker Bradshaw and later tour operator Thomas Cook (among others) began producing railway maps and timetables for 'the Continent' to help travellers to cope with what was often perceived as the 'chaos' of a continent served by numerous different private companies.[38] Several decades later, while plans to build a European motor-road network were still being debated, the Swiss firm Hallwag was producing a motor-touring atlas that already presented Europe's roads as a transcontinental network, ordered hierarchically and appearing as a coherent whole that did not relate to national boundaries (Figure 2.4).[39] Maier usefully highlights the importance of networks in constructions of 20th Century territoriality, in which he argues that 'identity space' and 'decision space' until around 1970 'coexisted like magnetic fields and electrical fields, orthogonal but overlaid, movement through one generating energy in the other.'[40] On a rhetorical level, maps can also emphasize

imbalances as a means of justifying intervention. The European Roundtable of Industrialists, for example called for infrastructure intervention by invoking international connections as a larger network, re-framing several points as 'missing links' or 'bottlenecks' in a larger network.[41]

     Obduracy refers to the sense of things portrayed in maps as fixed, durable and long-standing. Obsolescence is the greatest threat to a map.[42] Most maps therefore 'exist in the present, or, if they can possibly get away with it, the aorist: no time at all.'[43] This temporal assumption about maps reinforces assumptions that both (national) territories and infrastructures are static or slowly-changing. As Barthes has argued about myths, maps function by holding the histories of spaces and places at a distance but in reserve, at once acknowledging their presence but not allowing them into the narrative.[44] But obduracy does not apply equally to all elements in a map. As Denis Wood argues, 'every sign system is potentially figure and every sign system is potentially ground.'[45] The hierarchies of obduracy in a map are seldom unambiguous, and even subtle shifts in relative density of lines, colours, etc., can powerfully emphasize or alter a map's argument. In general, networks are assumed to be the more dynamic element in a system. This becomes apparent when maps do state a specific time, which draws attention to what could change; it asks questions about the relation of the network to the areas beyond, and can dramatize the map's boundaries and frames as spaces that are potentially to be networked.

     Naturalness. Naturalizing relations is a key function of myths generally. On European network maps, 'nature' in its colloquial sense, plays an important role in such strategies. Inserting natural features, usually to the exclusion of all other signs of habitation, can assert the naturalness of a space, in which a network (particularly one fitted to its contours) then seems a 'natural' addition. Such features are also useful in positing national borders as 'unnatural' objects. Would-be network builders from Hermann Sörgel's overly-ambitious Atlantropa project in the 1930s, to Marshall Plan proponents in the 1950s and the European Union in recent years have all mobilized natural-looking relief maps of Europe as arguments for integrated European-scale technological networks.[46]

     Neutrality is a common cartographic myth that pervades European network maps in a variety of particular ways. Both the technology of map-making itself (and the authority behind it) as well as the technical networks portrayed on maps appear as neutral or disinterested. Similarly, the disinterested nature of the nation as 'imagined community' carries over into representations of national territories and justifies their being filled with national networks.[47] Transnational system-builders, by contrast, have often been at pains to portray their networks as existing without any interest in – or effect on – national territories whatsoever, as part of an agenda of 'hiding' their integration work.[48] Maps drawn up by international bodies such as the UNECE contain disclaimers, stating that they make no statement 'concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of the frontiers of any country or territory.' By freeing map-makers of involvement in international tensions, such statements further suggest that the networks on the map are somehow disinterested, serving their own harmless or benevolent purpose. Even maps that are used for clearly interested purposes, such as those embedded in tourist advertisements, often seem to act as neutral testimonials 'quoted' by the interested institution, or as evidence of their knowledge or competence over the network and space portrayed.

The period after the First World War saw a rapid, if uneven, rise of automobility in Europe, spurred on in various ways by the war, as well as by the new demands of peace.[50] Increased desire for cars brought increased pressure to build roads better adapted to them. At the same time as plans for building national motor-road networks also came many proposals to build transnational roads in Europe. Several different plans to build a European network of motor-roads, all of which were more or less unsuccessful, were proposed through a number of different international bodies throughout the 1930s.[51] The demand for transnational roads was part and parcel of the understanding of the uses of cars in their earliest incarnation as leisure vehicles for the rich, namely racing and touring.

One such plan was proposed in 1930 by the British Automobile Association to the Alliance Internationale de Tourisme (AIT), a confederation of mostly European national motoring clubs to build a road from London to Istanbul. The AIT did not have the funds to build roads, but they did have the ability, individually and collectively, to lobby governments. At a time when many plans for large-scale road-building in Europe were being proposed, the AIT plan was quite modest, and as such made it relatively easy for state governments to support. The plan was not to build a new road but to improve existing roads along a specific route to a minimum standard, and to produce numerous materials that would guide motorists along the route. It would be up to each individual nation through which the road passed to design and build its own section along the route prescribed. In short, the AIT used existing structures to invoke ideas of a European network in order to shape practices in a number of settings and contexts.[52]

Many maps of the road show it proceeding in straight lines from capital to capital, making it implicitly a link between nations. Though seldom referred to explicitly, the focus on directness and speed in planning the road reflected an overall view prevalent at the time that increased rationality and efficiency would necessarily bring greater prosperity where it was built.[53] Indeed, the maps that were produced of the route closely resemble many maps for European networks, both extant and planned, that were in circulation at the time. One standard for the road was adhered to as strictly as possible: 'In principle, the route of the road between the large centres which have been marked out should be as direct as possible.'[54]

Although the road as initially proposed by the AA was only to build a road to Istanbul, the plans soon were expanded to include the British colonial outlook, with extensions going on from Istanbul to Cape Town and Calcutta (see Figure 2.4). The map of the route that the AA produced to support this route, which was published in various places, expresses several spatial visions. Through the use of the large title inset over the bulk of Asia and a distortion in the size of Europe, the map bears some semblance to medieval T-O maps that show Europe, Asia and Africa as three equally balanced parts of the world, with Jerusalem (almost) as the middle point.[55] Whereas the medieval maps expressed a balanced world, however, the tipped axis of the road in the AA map, and the list of distances counted from London make it clear where the road's physical and ideological origins lie.
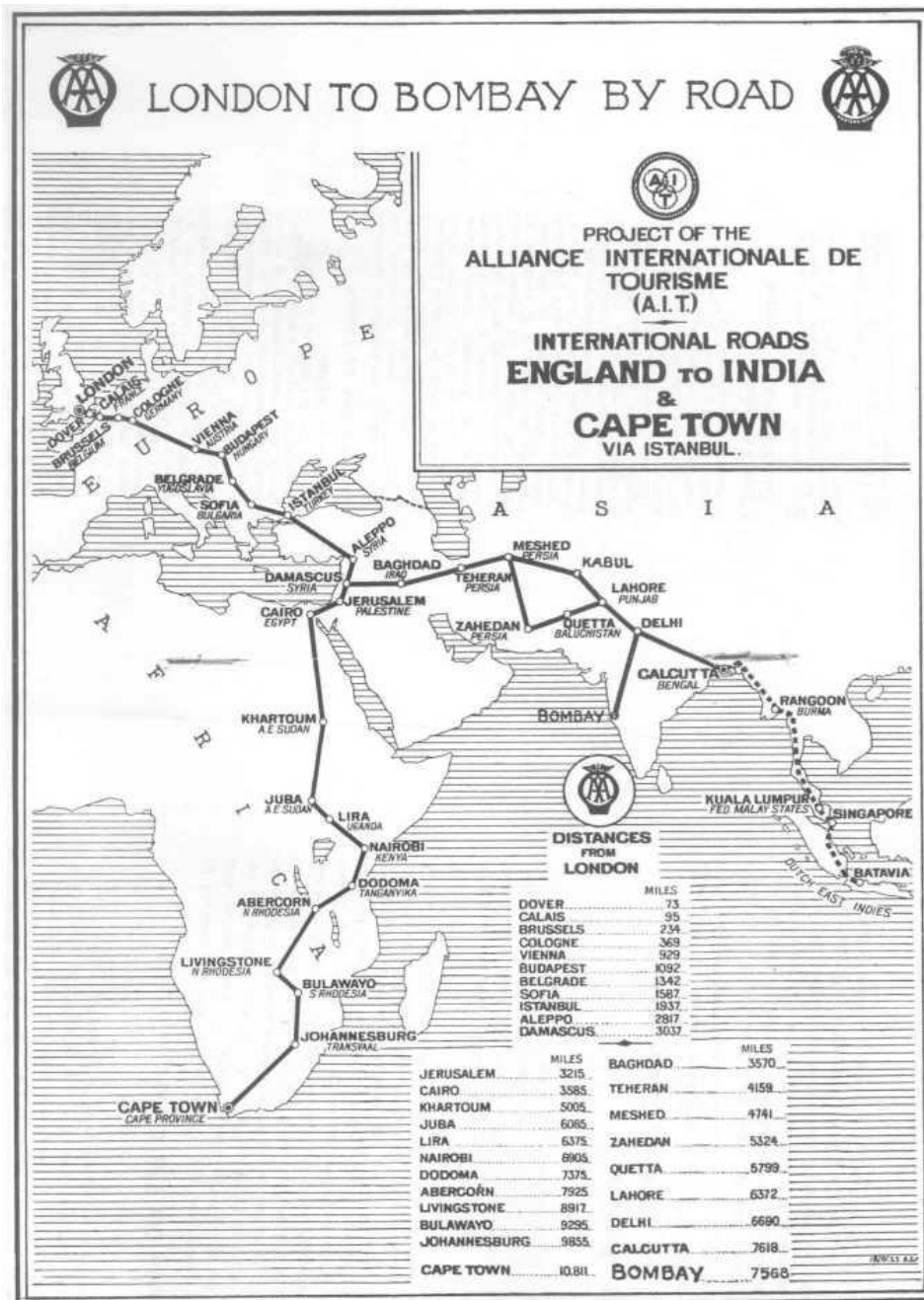
LONDON TO BOMBAY BY ROAD

PROJECT OF THE
ALLIANCE INTERNATIONALE DE TOURISME
(A.I.T.)

INTERNATIONAL ROADS
ENGLAND TO INDIA
&
CAPE TOWN
VIA ISTANBUL.

DISTANCES FROM LONDON

	MILES		MILES
DOVER	73		
CALAIS	95		
BRUSSELS	234		
COLOGNE	369		
VIENNA	929		
BUDAPEST	1092		
BELGRADE	1342		
SOFIA	1587		
ISTANBUL	1937		
ALEPPO	2817		
DAMASCUS	3037		
JERUSALEM	3215	BAGHDAD	3570
CAIRO	3585	TEHERAN	4159
KHARTOUM	5005	MESHED	4741
JUBA	6085	ZAHEDAN	5324
LIRA	6375	QUETTA	5799
NAIROBI	8905	LAHORE	6372
DODOMA	7375	DELHI	6690
ABERCORN	7925	CALCUTTA	7618
LIVINGSTONE	8917	BOMBAY	7568
BULAWAYO	9295		
JOHANNESBURG	9855		
CAPE TOWN	10,811		

Figure 2.5 'London to Bombay by Road' from the Western India Automobile Association, 1935. Image courtesy of the Automobile Association

For the nations through which the road passed, the road's inscription on the map was not so much an invitation to create a road, but to *join a reality*. The road's first inspection survey in 1933, in which a well-known British motoring journalist drove the proposed route, is what first constructed the road, as a single, uniform entity, out of the disparate national roads it was laid over. Within two years of that survey, all of the member governments through which the road passed had adopted it into their national road-building schemes, and many gave the road highest priority. While the road was portrayed as a single line, it was meant also to invoke by its very presence a European network. A stated aim of the project was to form 'the first channel to conduct road traffic to and from Europe, and from and to the Continents of

Africa and Asia,' envisioning that traffic would 'flow into and out of the Route at hundreds of points.'[56] Many nations that were not part of the proposed route saw the plan as an opportunity to 'get on the map' in Europe.[57] The Dutch added their own colonial visions to the project with an extension onward from India, hoping the road would improve tourism to their colonies in Indonesia.[58] The Touring Club of Norway sought to put their own nation on the map by proposing a route that would come down all the way from Kirkenes to Hamburg.[59] By connecting to the London-Istanbul route, and so to Cape Town, the road would thus create a complete North-South Axis, spanning from the 'Northern Cape' to the 'Southern Cape'.[60] The map of the road was not merely an invitation to join in cartographic fantasy, however. Its presence and coming-into-being also provided the AIT (via its members in national touring clubs) with a powerful

argument for lobbying their governments to adopt uniform standards for road design, border crossings and customs activities.

The vision of the road as the first part of a complete rational network, offering apparent equal links and access between all cities on the route, while playing an important role in the representation and acceptance of the road, also stood in tension with existing place-myths of the places it was joining up. Although the road also travelled a great distance from north to south, it was 'read' by its makers almost exclusively in terms of its east-west axis. Such views were reflected in the map of the route produced by the AA in 1935 (Figure 2.5). While also resembling maps of transnational auto races, with their emphasis on the route rather than the outlines of larger geographical spaces, this particular map actually shifted the map by several degrees. Europe appears not so much dis-oriented as *hyper*-oriented, entirely concerned with its route to the East. The planned road resembles nothing so much as a river flowing across the continent. Indeed, this particular map was to show the intersections of the road with the natural feature of the Danube, and the existing Orient Express rail line.
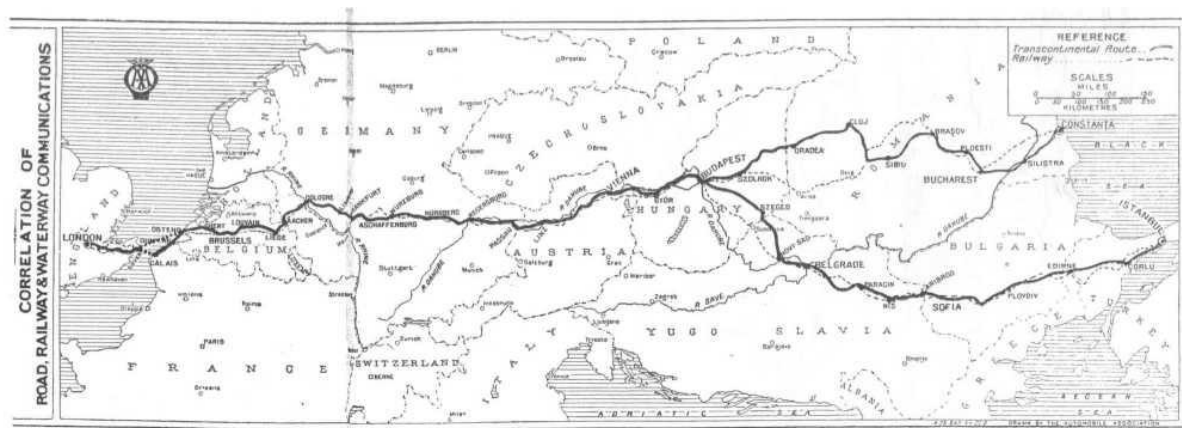

Figure 2.6 Europe, oriented: the London to Istanbul road from a 1933 planning map. Image courtesy of the Automobile Association

The vision of the road as a 'natural' link between East and West was expressed during the first meeting of the route's permanent committee. Paul Duchaine, president of the Belgian touring club as well as long-time secretary general of the AIT, stated majestically:

> It is not the AIT, it is geography, it is the sun, which has chosen the path of the road that unites London and Stamboul. This path was once the route of warlike invasion, the route of the peoples of Asia, coming to invade Europe. From henceforth, it will be the great artery of commerce and industry, the beautiful road of the future, joining Europe peacefully to Asia.[61]

Though speaking of London and Istanbul being united by the 'natural' path between them, Duchaine actually points to the mental difference. The creation of peace between the two continents is about *reversing the flow* along the path, bringing Western wealth and enlightenment to the East. The choice of Budapest as a host of the

meeting was praised by many of the speakers as being the centre-point between West and East, while all made equally clear that this 'centre' was also in the East, praising its 'oriental' nature. When it came his turn to address the meeting, Rechid Safvet Atabinen of Turkey also spoke of Budapest in similar terms, though with markedly different emphasis:

> The Turks, who traditionally have experience of Hungarian hospitality, thus consider that our meeting in this city has much to recommend it. It is not merely situated at the geographical centre of the route, but the path of the Asiatic invasions which brought the Huns, the Kumans to this region, will henceforth be a route of interpenetration of the interests and cultures of Europe and Asia.[62]

Both speakers invoked the same history with regard to the road and the city of Budapest, as well as its symbolic and physical position just east of the centre of Europe. While Duchaine spoke of *reversing* the flow of the road toward the East, Atabinen recalled the former Ottoman possession of much of the Danube basin, presenting the road as following a 'natural' course of *interpenetration* between Europe and Asia. From the time it was proposed, the transcontinental road followed much more the vision expressed by Duchaine, clearly being 'read' in one direction, from West to East. Quite apart from the routine way of referring to the road as 'London to Istanbul,' (or 'London to India,' or 'London to Cape Town') the recitation of the road's journey from West to East was even written into the planning practice for the road. Both the permanent committee's the rotating presidency, as well as the order of reports presented to it, followed 'the geographical order of the road,' passed on from West to East. In this light, Atabinen's flowery speech becomes intelligible as strongly-worded resistance to a number of practices and myths surrounding the road. He drew on the myth of networkedness to assert not only the *historical* relations of Turkey to the nations further West, but uses the road to put a modern, *contemporaneous* Turkey on the map.

The road's already well-entrenched position in physical and symbolic space had the effect of making its position in time a great deal less certain. Some accounts referred to it unproblematically in the present tense as a road that could be driven straightaway, others still in the future tense. When the Second World War finally drew a halt to the construction work, the position still remained uncertain, and this uncertainty continued into the 1950s. A British film reel from 1944 showed both maps, one after another, and mentioned the road as an extant thing.[63] At a meeting of the AIT in 1949, the Turkish delegate explained that the Turkish section of the road was nearly complete, and advocated that once the road was finished, that the headquarters of the permanent committee be moved to Istanbul so that road building could then be concentrated more on Asia.[64] A British touring guide from 1950 mentions the road, with reference to the segment of it in Belgium as a road still in progress, as does a film advertising for the Marshall Plan in 1951, and the 1952 edition of *Europa Touring* mentioned it in the sections on Hungary and Bulgaria, but nowhere else.[65] Noteworthy about the mentions in the latter touring guides is that they were mentioned specifically with regard to *national* road networks, where the myth of the European network served as evidence of those nations' modernity and integration long after the actual road had been bypassed in the European road network building.[66]

The supposedly 'organic' planning path of the road was smoothed considerably by invoking specific visions of European space. Imperial powers read it as a way of

inscribing their colonial controls and ambitions on and beyond the map of Europe, while many of the smaller states were able to place themselves on the map as modern European nations. For the Balkans and Turkey it was about becoming modern nations, for the countries in the West it was at least in part about looking at their own past in the East. While unifying Europe was one of the purposes that was stated for the road, ultimately, the process actually worked the other way around: on maps and in practice, 'Europe' unified the road.
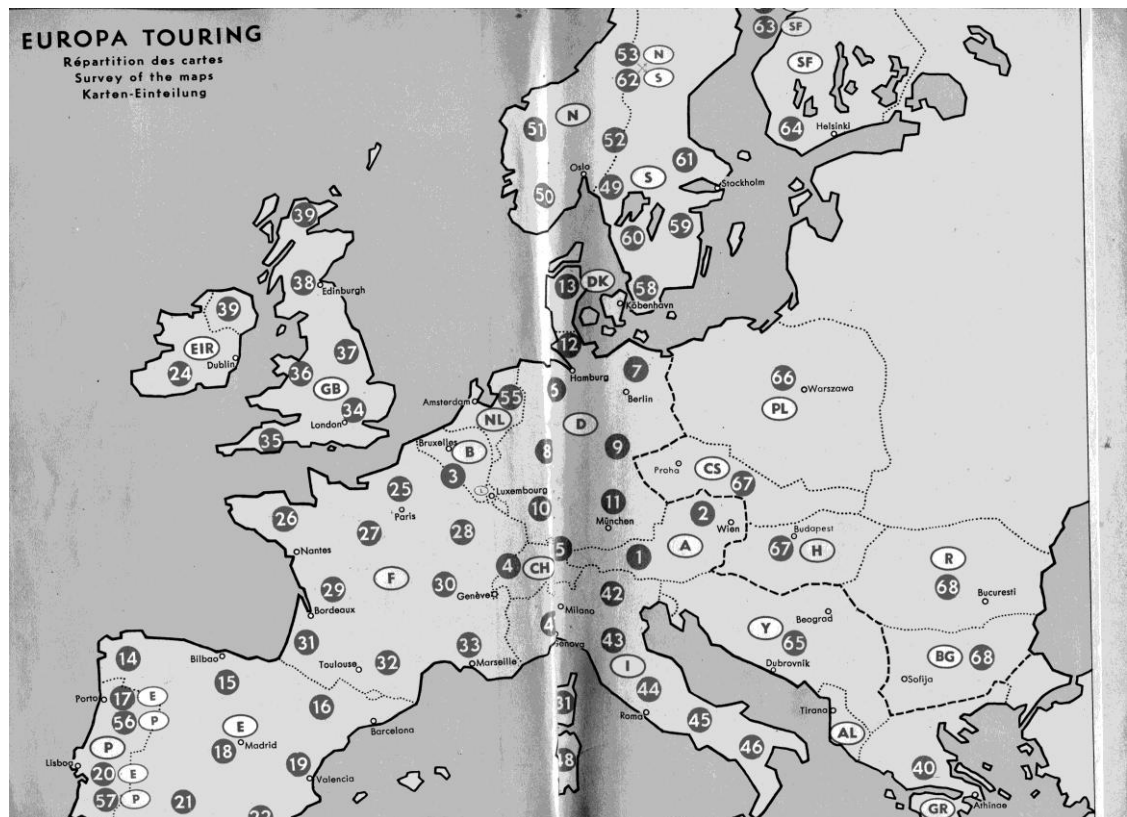

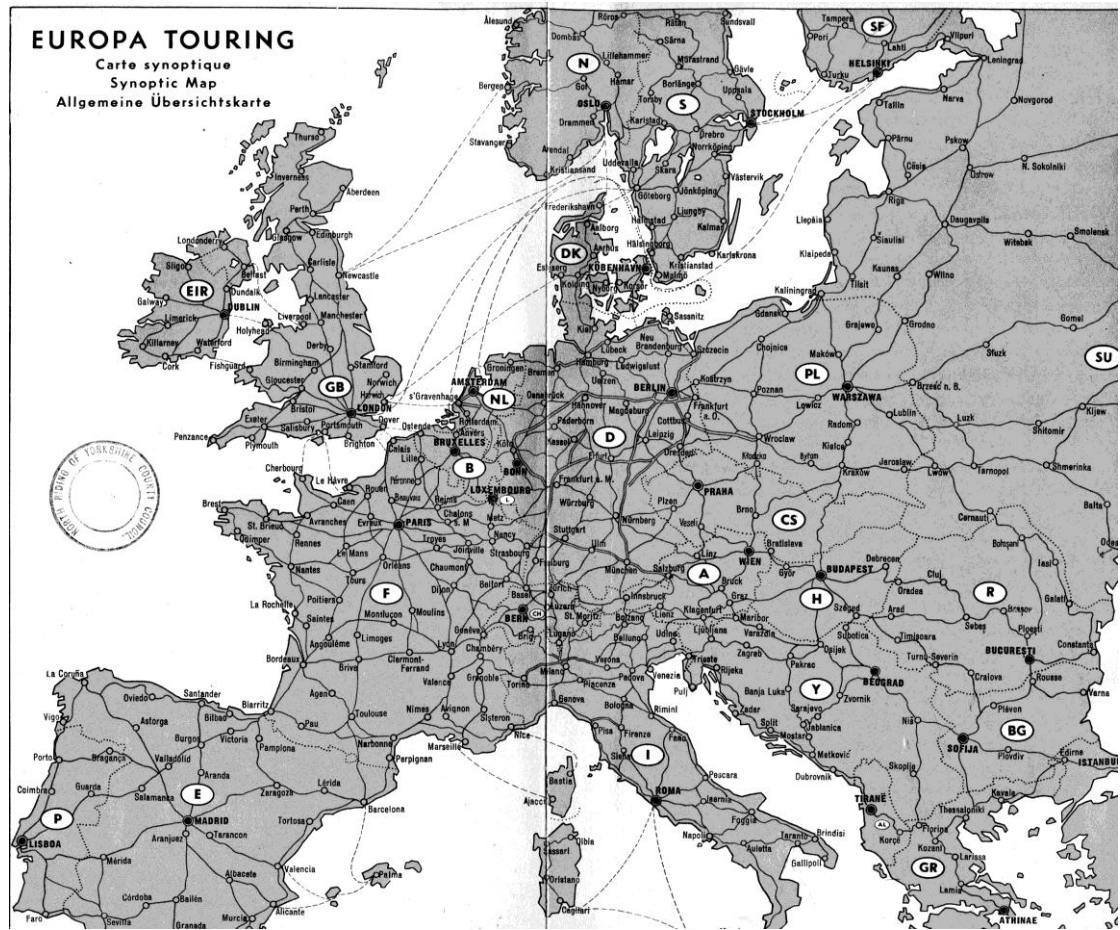*The European network as ghost: addressing the 'Iron Curtain'*

The Second World War did not completely interrupt networking activity in Europe. If anything, military logistics and Nazi plans for large-scale economy (*Großraumwirtschaft*) in the lands they conquered resulted in the proliferation and circulation of ideas and visions for united the continent technologically.[67] As the resurrection of the London-Istanbul road in the closing days of the war indicated as well, these visions and plans had a momentum of their own that echoed forward past the war. On the material side, the post-WWII division of Europe did not create a sudden, clean, or even steady division of Europe's existing transport networks, although the blocking of cross-border networks became one of the most dramatic, and in many cases traumatic, phenomena of the post-war division of Europe.[68] On the other hand, the perceived mutual threat meant that both sides had an interest in keeping the border in place and obvious.[69] Turning away from the divide, however, both the Americans and the Soviets also had a vested interest in seeing the nations in each respective bloc integrated, both for economic reasons and to bind the countries together for mutual defense. Marshall Plan propaganda specifically targeted national boundaries across roads and railways as 'unnatural' hindrances to the freedom of roads and railways.[70] One major impetus for the reconstruction of transport networks, as well as the lowering of national restrictions on travel, particularly in Western Europe, was to once more get revenue flowing from the 'hidden export' of tourism, particularly for Americans.[71] Movement between countries was to become free as possible, not only for Europeans, but for Americans, who tended to see Europe as a single place, and wanted to see multiple countries on their tours.

At the same time, there were also efforts at bridging the divide through networks.[72] The most notable of these was the UNECE, mentioned at the start of this paper. Established in 1947, the UNECE set out explicitly to link all of Europe through the building of material systems. Initially, at least, they were particularly successful in the realm of road-planning. By the beginning of the 1950s, a proposal for a Europe-wide network of roads, the E-road system, was proposed.[73] Working in much the way the London to Istanbul Road had worked before, the E-road network was conceived of not as specific roads but as a series of itineraries, which were laid out across the Cold War divide. Each nation was able to designate which routes would make up the network, and improve them in the way that they were best able. Perhaps paradoxically, one of the main drivers behind the creation of the E-road network was the International Road Federation, a body made up largely of Western (including US) oil, rubber and auto industries, which were primarily interested in promoting automobility in the West, where they would be able to sell their products. Maps of transport networks were caught between these two important tensions: the need to

acknowledge the geopolitical division of the continent, but also to present visions of connectivity and mobility.

These tensions are very visible in the 1952 edition of Swiss-based auto guide *Europa Touring*. The dramatic language of division was written into the book's 'key', which told readers that 'the countries at present behind the "Iron Curtain" [...] are grouped at the end of the book,'[74] and indeed on the following page those countries are shown, out of the alphabetical order in which the other countries are arranged, separated from them by a line of x's that call to mind nothing so much as a row of barbed wire. The following page provides a political map of Europe showing all of the nations portrayed in the book as a key to the breakdown of maps in the rest of the book. The 'Iron Curtain' runs as the heaviest line across the map (Figure 2.7). Apart from this spatial removal, however, the tourist information is nearly as thorough as many of the other countries portrayed, complete with driving instructions and list of attractive sights to see, without any mention of border crossings. The individual maps of these countries are presented as smaller, generally one country per page in contrast to those of Western nations. At the back of the book, however, the route-planning map shows the network in full. All of the nations of Europe, including Russia (but not, notably, going as far back as Moscow) are visible with each of the countries pictured (with the exception of the Maghreb, and Turkey beyond Istanbul) pictured with its national auto-symbol. The map of the network here is shown as crossing boundaries to the East with the same ease as in the West. The reverse side of the map shows touring information only for the countries in the west, laid out in a convenient table.

Figures 2.7 and 2.8 Now you see the 'Iron Curtain', now you don't. Front and back maps from *Europa Touring,* 1952. While the front 'territorial' map draws attention to the Cold War divide, the network map in the back ignores it entirely. Used by permission of Hallwag.

A more dramatic approach to Europe and its borders is the Esso 'Road Map and Pictorial Guide to Western Europe and Adjacent North Africa'.[75] On one side of the map appears the 'Esso guide to happy motoring' (Figure 2.9) designed to give the reader an idea of what is worth seeing. Small iconic figures fill the map on the Western side, portraying the West as a fecund place, filled with historical places, natives in traditional costumes, and modern leisure pursuits. Pictures of women in swimsuits beckon the presumably heterosexual male driver to beaches. Set against this abundance, on the other side of the divide there is merely empty yellow space, and a small sign announcing 'travel is restricted in areas shown in yellow (September 1950).' The rigid date attached to the travel restriction is at once a citation of unnamed authority and a gesture that freezes the Eastern side in time. The note's temporal message is all the more evocative – and ambiguous – given that it sits inside an outline of the German borders from 1937, within which the cities all bear their German names (this was not unusual for German maps through the 1970s). The unease visible in the assertion of the 1937 eastern border is mirrored in the unease surrounding the disputed internal border, which is here partly obscured by images of transport infrastructure, the 'Autobahn' (clean and modern, with a lone car) and 'Tempelhof Airport (Berlin)', placed not over Berlin, but instead obliterating the borderline.

Figure 2.9 Detail from the 'Pictorial guide to Happy Motoring' on the 'Esso Map of Western Europe and Adjacent North Africa - Road Map with Pictorial Guide' 1955 Copyright American Map Corporation - Used with Permission

The reverse side of the map then portrays the road network, laid out over a map rendered to the same scale as the 'Happy Motoring' guide. Although the division of Europe is designated with a thick but pale pink line, the actual road network is portrayed as crossing the lines as part of a complete network, with the distances between Krakow and Budapest given just as those between Bonn and Luxembourg. At a basic level, the road network follows a separate logic from the political boundaries that are represented on the map. An apparently unified network is laid over a territory that is strongly divided politically. Though in not quite such dramatic fashion, the Shell map of Europe follows a similar pattern.[76] The front side of the map shows a Europe expanding quite far to the East, covered with a full European road network. The E-road network is marked with little green signs, along which one can follow trajectories, on paper at least, through to Russia. The only acknowledgement of the 'Iron Curtain' is the addition of checkpoints over the border. The reverse side is filled with information for the tourist, all of which advertise tourism in Europe as an abundant land of plenty: visa and customs regulations (symbolized by the cartoon of a fat man smoking a giant cigar, riding a liquor bottle on wheels), a calendar of 'events in Europe', almost exclusively composed of folk festivals, lists of the various national auto-stickers, all for the Western nations in Europe – not to mention the full range of Shell auto products.

Both Esso and Shell, like other Western petrol companies, had a vested interest not only in getting people into cars in Europe, but also in keeping them in places where they sold petrol. As an advert for Shell maps of Europe in the mid-

1960s reminded readers, 'Wherever you go in Western Europe – except in Spain and Yugoslavia – Shell service stations are always near at hand'.[77] For the driver in the West, to whom the maps are addressed, the appearance of the broader network could potentially appear as a statement of the 'natural' freedom of roads. If you have a car, you can go anywhere there is a road, if only political divisions do not get in the way. Juxtaposed with the 'Happy motoring guide,' or the bright colourful information on the back of the Shell map, however, the 'freedom' of the road network in the East also appears somewhat more sinister when the network crosses the border. Whereas in the West, the road will take you through lands filled with extraordinary sights and pleasures, the East, by contrast, appears as a place that is *merely* rational. Filled neither with natural landscapes and natives in costumes, nor with modern sites for play, they are represented as being without past or future, but as stuck in the everyday, that is just slightly behind.[78] On this side of the map, the network is a ghost: a visible but intangible relic, haunting a place from an indeterminate point in the past.

A railway network map for tourists in 1955 by the CICE, the information branch of the Union Internationale de Chemins de Fer (UIC) the international railway union seems to take the opposite approach to the Cold War divide by ignoring it outright. The railway network in this map is shown laid out over a topographic map of Europe, depicting Europe as a natural whole, with no national boundaries and no 'Iron Curtain' at all. The network stretches out in gently curving lines, connecting capital cities, which are specially highlighted on the map. The flags that surround the map highlight the internationality of the network. The blurb above the map portrays the network as a unified system, kept running smoothly by expert international co-operation.

> While the passengers speed forth at 120 km per hour, thousands of well-trained and specialized men are looking out for their security in the stations, on the lines and on the telephones. Everywhere, at the signal houses and command posts, the railwaymen of Europe are working hand in hand to ensure you a good journey.[79]

This tone is continued throughout the brochure in blurbs that explain that the train is fast, convenient, modern, and 'lets you see the landscape.' Throughout these blurbs, variations on the theme of 'the European railway' are repeated almost like a mantra, ensuring the reader that the railway network in Europe functions smoothly, like one large machine. This is significant: for all that the map of Europe stands at the centre of the brochure, the rest of the brochure has very little to say about what Europe actually contains, other than railways. The most important feature of Europe to be seen is a uniform, cohesive railway network.

One has to look past the map to notice that the brochure is actually only about railways in the West. On the map itself, the inset showing the modern trains of the German, Danish and British railways handily covers over the Soviet Union (which quit the UIC after the war) and moves the capitals of the cities in East Central Europe to the apparent edge of the map. Indeed, they are shown as linked only to the centre and not to each other, as outposts, and in the case of Warsaw, as terminus of the network that is centred in West Central Europe. The flags that surround the map are also only of nations in the West, so while at first glance they appear to uphold the image of a Europe made up of nation-states, it actually only legitimates those in the West. Reading further into the brochure, the small pictures are all accompanied by the insignias of Western railways, and a list of travel times from Dutch cities cites

destinations of Paris, Brussels, Hamburg and Luxembourg. The map of a large, unified Europe appears to be there entirely to signify the apparently free and frictionless movement of the traveller through the network, and to appropriate the designation of Europe for the networks in the West. In other words, while apparently taking precisely the opposite approach to the Iron Curtain from the roadmaps cited above, the overall effect is very similar in that it attempts to get the traveller to *look away* from the division that would restrict movement.

To highlight the ambivalence of such networks, I will point to one more road map, this one from Poland's state cartographic publisher in 1985.[80] The opening pages of the Polish atlas present the reader with three maps of Europe, which, particularly seen in rapid succession, seem to make evocative statements about the unity of Europe. The first page offers a route planning map with all of the major roads in Europe. Although they are not labelled as such, this is the E-road network. The map itself is a very broad map of the continent, stretching well beyond Moscow, containing almost all of Turkey, the northern tip of Scandinavia, as well as Iceland in an upper corner. This map is framed with the flags of all of the nations portrayed (except those in North Africa) presenting the reader with a vision of a Europe united under a road regime governed by individual sovereign states. The next pages give an overview map showing the breakdown of individual maps to be found in the atlas. Here an even larger version of Europe is shown, this time with national boundaries and no roads, but instead with the major rivers, presenting Europe as a natural whole. Lest the reader miss the point, the next pages provide the exact same breakdown of maps again, but this time superimposed over a full relief map of Europe.

Particularly taken together, these three maps bear a strong resemblance to the 1955 railway map discussed above. Both provide a view of Europe as a large, natural space, gently filled with a network. But whereas the former mostly used the space of Europe to mark the many other aspects of the railway network as European, here the roads appear as one of three expressions of belonging to a broader Europe. These maps are particularly interesting given the revival of the discourse of Europe, and in particular Central Europe, that was taking place on both sides of the map during much of the 1980s.[81] These maps are also intriguing because they describe a range of mobility that was still simply not available to the majority of people in the countries where they were produced. After 1989, many countries formerly in the Soviet bloc or Soviet Union created new 'cartographies of independence' to show proudly their position in Europe.[82] Motoring maps of the frame and style shown here played an important role in these new persuasive geographies.[83] The cartographic obduracy of the network became the proof that (at least some parts of) 'the East' had always been *central* to Europe, and formed one building block in the rhetoric that eventually moved many of the nations in the 'middle' to the 'West'.[84]

Disconnecting network from territory: another interruption in place of a conclusion

The mapping processes I have described have shown in most cases how maps of European networks have been used, alternately or together, to call into being a networked place called Europe.   In the case of the London to Istanbul road, while myths of a rational, straight road through empty space were superimposed on the map, specific place-myths of Europe were repeatedly called upon to make the road seem

like a 'natural' occurrence and expression of places that already existed. In the case of the Cold War maps, the network appeared as a ghost: something visible and indelibly tied to a place, but intangible and unstuck in time.

I will close by considering one further map, produced by A SEED Europe, one group that has actively opposed the various transport networks of the EU on an EU-wide basis.[85] As the map claims:

> This is what Europe looks like. For a large part a busy, densely populated and ever-building small-size continent. Unfortunately, the green lines on this map aren't showing valuable forests or nature areas but the extensive infrastructure that is planned for Europe – East, North South and West. The EU driven projects TENs and TINA corridor links (Transport Infrastructure Needs Assessment) are mega-billion projects that should make Europe 'a coherent, easily-accessible continent'. [...] Take a close look! It's quite 'green' isn't it?[86]

This map attempts to hijack the myth of Europe as a networked space and turn it into a map of local resistance, showing widespread dissatisfaction and 'friction' against the coming of infrastructures. At first glance, it appears to be a very familiar map. It lists priority European projects in red (and hard-to-read) numbers, and has a series of alternate nodes in yellow flags, each one a listing for an organization working to oppose the projects, and visually outnumbering the red dots.

Unlike the other maps discussed here, where the network has appeared as more or less naturally integrated into the territory portrayed, this map posits the continent of Europe as a natural space *against* the network. The yellow flags make specific appeals to places, asserting their historicity and locality against the 'flows' of the network. In so doing, whether deliberately or not, however, the map also makes an appeal to an apparently naturally and nationally-based European territory. The Maghreb and the Asian part of Turkey appear in white (which the legend lists as 'other continents') while, interestingly the European side of Turkey is not only coloured in, and an Istanbul-based resistance group is listed. Ironically, it reproduces a similar cartographic confusion to that in the map with which I began this chapter. Above all, the map highlights the as-yet limited spatial rhetoric of resistance to network projects at the European level, both in terms of the points at which resistance can be exercised, but also in terms of the alternate visions available in current discourse.[87] It suggests that, like EU planning processes themselves, resistance may ultimately be best expressed 'off the map'.[88]

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[1] Inscription over Europe in Thomas Cook & Son world map 'Mr Kennedy North's entirely accurate map of the world...' in Piers Brendon, *Thomas Cook. 150 years of Popular Tourism*, (London: Secker & Warburg, 1991), endpapers.

[2] Roundtable of European Industrialists, Need for Renewing Transport Infrastructure in Europe - Proposals for Improving the Decisionmaking Process, (Brussels: ERT, 1989), p. 11. The caption refers to a map of the Roman road network.

[3] Ismail Sakarya to George Koranyi, 28 January 1980. Archive of the United Nations, UN ECE Economic - Coal - Gas - International Map of Gas Transmission Systems in Europe GX 11/13/40 box 2044.

[4] David Turnbull, *Masons, Tricksters and Cartographers: Comparative Studies in the Sociology of Scientific and Indigenous Knowledge*, (London: Routledge, 2000) p. 8. See further Michel de Certeau, *The Practice of Everyday Life*, (Berkeley: University of California Press, 1984) p. 121.

[5] See Andreas Fickers' and my introduction to this volume.

[6] Ole B. Jensen and Tim Richardson, *Making European Space: Mobility, Power and Territorial Identity*, (London: Routledge, 2004) pp.41-50.

[7] On the promise of spatial artefacts as historical instruments, see Karl Schlögel, *Im Raume lesen wir die Zeit. Über Zivilisationsgeschichte und Geopolitik*, (Munich: Carl Hanser Verlag, 2003).

[8] Steven Graham and Simon Marvin, *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition*, (London: Routledge, 2001) p. 12, emphasis in original.

[9] See Erik van der Vleuten, 'In search of the networked nation. Transforming technology, society and nature in the Netherlands in the 20th century'. *European Review of History*, 10 (2003), 59-78; Charles S. Maier, 'Transformations of Territoriality 1600-2000' in Gunilla Budde, Sebastian Conrad and Oliver Janz, *Transnationale Geschichte. Themen, Tendenzen und Theorien* (Göttingen: Vandenhoeck & Ruprecht, 2006), pp. 32-55.

[10] See a recent op-ed piece on the railway network of Wales by George Monbiot, 'Dr Beeching turned the country I have come to love into an outpost of empire', *The Guardian*, 30 December 2008, p. 28.

[11] Andrew Barry, *Political Machines: Governing a Technological Society*, (London: Athlone, 2001) p. 25.

[12] J. Peter Burgess, 'Coal steel and spirit: the double reading of European unity (1948-1951)', in: Bo Strath (ed.), *Europe and the Other and Europe as the Other*, (Brussels: Peter Lang, 2000), p. 433, emphasis in original. See also Cris Shore, *Building Europe: The Cultural Politics of European Integration*, (London: Routledge, 2000) pp.113-4.

[13] See Gerald Delanty, *Inventing Europe: Idea, Identity, Reality* (London, 1995); Larry Wolff, *Inventing Eastern Europe: The Map of Civilization on the Mind of the Enlightenment*, (Stanford: Stanford University Press, 1994).

[14] Bruno Latour, *We have never been modern*, (Cambridge, Mass: Harvard University Press, 1993) p. 117.

[15] See Per Olof Berg, Orvar Löfgren, and Anders Linde-Laursen (eds), *Invoking a Transnational Metropolis: The Making of the Øresund Region*, (Lund: Studentenlitteratur, 2000); Eve Darian-Smith, *Bridging Divides. The Channel Tunnel and English Legal Identity in a New Europe*, (Berkeley: University of California Press, 1999); Judith Schueler, *Materializing Identity: the co-construction of the Gotthard Railway and Swiss national identity* (Eindhoven: Aksant 2008); Vincent Lagendijk and Alexander Badenoch, 'Myths of Kaprun: Material visions of Europe and Austria', paper presented to European Identity and the Second World War conference, Amsterdam 10-11 December 2007.

[16] Graham and Marvin, *Splintering Urbanism*.

[17] For a succinct overview of these issues see Chris Rumford, 'Rethinking European Spaces: Territory, Borders, Governance', *Comparative European Politics*, 4:2/3 (2006) 127-140.

[18] European Commissioner for Transport and Energy Loyola del Palacio comments that the 1993 Trans-European Transport Network (TEN-T) proposals marked 'the first time since the Roman era that Europe had started to think about transport systems going beyond national frontiers,' in CEC, *Trans-European Transport Networks TEN-T Priority Projects* (2002) p. 3.

[19] See Wolff, *Inventing*; Michael Wintle, 'Renaissance maps and the construction of the idea of Europe', *Journal of Historical Geography*, 25:2 (1999) 137-165.

[20] James R. Akerman, 'Introduction', in: James R. Akerman (ed.), *Cartographies of Travel and Navigation*, (Chicago: University of Chicago Press, 2006), pp. 1-15. A recent conference on 'Cartography as a Historiographical Argument in the Writing of Overlapping National Histories in Europe' highlights the growing interest in maps as historical tools, but also an ongoing neglect of network maps. See http://hsozkult.geschichte.hu-berlin.de/tagungsberichte/id=1923&count=1905&recno=20&sort=datum&order=down.

[21] See John Gerard Ruggie, 'Territoriality and Beyond: Problematizing Modernity in International Relations', *International Organization*, 47:1 (1993) 139-174; William Walters, 'Rethinking Borders Beyond the State', *Comparative European Politics*, 4:2/3 (2006) 141-159.

[22] In addition to those collected through my own research, particularly in the map collection at the University of Utrecht, I am very grateful my colleagues Irene Anastasiadou, Vincent Lagendijk, Suzanne Lommers Frank Schipper, Johan Schot and Erik van der Vleuten for sharing maps they have found in their research. I claim exclusive credit for any errors or stupidity in presenting and interpreting material they have provided.

[23] J. B. Harley and David Woodward, *History of Cartography. Volume I: Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean*, (Chicago: University of Chicago Press, 1987) p. 3. See also: J. B. Harley, 'Deconstructing the map', in: Trevor Barnes and James G. Duncan (eds), *Writing Worlds: Discourse, Text and Metaphor in the Representation of. Landscape*, (London: Routledge, 1992), pp. 231-247; Jeremy Black, *Maps and History: Constucting Images of the Past*, (New Haven: Yale University Press, 2000); Denis Wood, *The Power of Maps*, (New York: Guilford Press, 1992); Wintle, 'Renaissance maps'.

[24] Roland Barthes, *Mythologies*, (New York: Hill and Wang, 1972) pp.111-6, and passim.

[25] See Wood, *Power of Maps*, Ch. 7 for a taxonomy of these various 'codes of extrasignification'.

[26] Harley, 'Deconstructing', 235.

[27] David Gugerli and Daniel Speich show how the initial publication of Dufour's topographic map of Switzerland met with considerable resistance because it was interpreted as the assertion of a central authority that did not yet exist. *Topographien der Nation: Politik, kartographische Ordnung und Landschaft im 19. Jahrhundert*, (Zürich: Chronos Verlag, 2002). Similarly, a recent article in *Der Spiegel* highlights the threat of European gas dependency with an image of the control room of the Russian gas company Gazprom where they gaze on a map of European pipelines. Erich Follath and Matthias Schepp, 'Der Konzern des Zaren' *Der Spiegel,* 5 March

2007, p. 122. *Not* producing a map can also be a means of asserting control over space. Jensen and Richardson show how in order to keep nation-states from competing over which projects to put on the map, the EU reduced or eliminated their use during phases of the TENs projects, Jensen and Richardson, *Making European Space*, pp. 107-11.

[28] Jeremy Black, *Maps and Politics*, (Chicago: University of Chicago Press, 2000) p. 22; Vincent Del Casino Jr and Stephen P. Hanna, 'Representations and identities in tourism map spaces', *Progress in Human Geography*, 24:1 (2000) 23-46, here:28.

[29] A 'place' is understood as a space that can be circumscribed and bounded, such as a city, region or nation; a space denotes something broader and more inchoate, but no less real, such as The North or The East.

[30] Rob Shields, *Places on the Margin: Alternative Geographies of Modernity*, (London: Routledge, 1991) p. 60.

[31] On the former point, see Mark Monmonier's seminal and humorous *How to lie with maps*, (Chicago: University of Chicago Press, 1991).

[32] Gugerli and Speich, *Topographien*, p. 76ff.

[33] H. Schreiber, *Sinfonie der Strasse: Der Mensch und seine Wege von den Karawanenpfaden bis zum Super-Highway,* (Düsseldorf: Econ-Verlag, 1959).

[34] See, for example, Vincent Lagendijk, 'High voltages, lower tensions. The interconnections of Eastern and Western European electricity networks in the 1970s and 1980s', in: Éric Bussière, Sylvian Schirrmann, and Michel Dumoulin (eds), *Milieux économiques et intégration européenne au XXe siècle. La crise des années 1970 de la conférence de La Haye à la veille de la relance des années 1980*, (Brussels: Peter Lang, 2006), pp. 135-167, Frank Schipper "Was the road to Europe paved with good intentions? Building highways in the Balkans," (2007); TIE working document 18. Per Högselius, 'Connecting East and West? Electricity systems in the Baltic Regions', in: Erik van der Vleuten and Arne Kaijser (eds), *Networking Europe: Transnational Infrastructures and the Shaping of Europe (1850-2000)*, (Sagamore Beach: Science History Publications, 2006), pp. 245-278.

[35] Mark Monmonier, *How to lie with maps*, (Chicago: University of Chicago Press, 1991).

[36] Barry, *Political Machines*, pp. 14-5; Latour, *We have never*, p. 117.

[37] Schlögel, *Im Raume*, p. 102ff.

[38] James Buzard, *The Beaten Track: European Tourism, Literature, and the Ways to 'Culture' 1800-1918*, (Oxford: Clarendon, 1993) pp.77-9; Akerman, 'Introduction'

[39] *Europa Touring – Guide automobile d'Europe* (Berne: Hallwag, 1929).

[40] Maier, 'Transformations', p. 48

[41] Jensen and Richardson, *Making European Space*, p. 75.

[42] Schlögel, *Im Raume*, p. 81ff.

[43] Wood, *Power*, p. 112

[44] Barthes, *Mythologies*; James G. Duncan and Nancy Duncan, 'Ideology and Bliss: Roland Barthes and the Secret Histories of Landscape', in: Trevor Barnes and James G. Duncan (eds), *Writing Worlds: Discourse, Text and Metaphor in the Representation of Landscape*, (London: Routlege, 1992), pp. 18-37.

[45] Wood, *Power of Maps*, p. 140.

[46] Alexander Gall, 'Atlantropa: a technical vision of a united Europe', in: Erik van der Vleuten and Arne Kaijser (eds), *Networking Europe: Transnational Infrastructures and the Shaping of Europe (1850-2000)*, (Sagamore Beach: Science History

Publications, 2006), pp. 99-128, here: 114. Both the Marshall Plan film *Clearing the Lines,* Kay Mander, (Wessex Films, 1951) or the EU promotional film, *Europe of Railways* (2003), available on the website of the European Commission, use a relief map of Europe as a key part of their argument that nation-states present 'unnatural' barriers to European transport networks. For the latter, see http://ec.europa.eu/dgs/energy_transport/video/rail/2003_rail_en.mpg , accessed 2 March 2007.

[47] Benedict Anderson, *Imagined Communities: Reflection on the Origins and Spread of Nationalism.*, (London: Verso, 1991) p. 144; Gabrielle Hecht, *The Radiance of France: Nuclear Power and National Identity after WWII*, (Cambidge, Mass: MIT, 1998) p. 13.

[48] Erik van der Vleuten and Arne Kaijser, 'Networking Europe', *History and Technology*, 21:1 (2005) 23-4, and see Johan Schot's contribution in this volume.

[49] This section draws on a more thorough account in my article, 'Touring Between War and Peace: Imagining the 'Transcontinental Motorway' 1930-1950', *Journal of Transport History*, 28:2 (2007) 192-210.

[50] See Kurt Möser, 'World War I and the Creation of Desire for Automobiles in Germany', in Susan Strasser, ed., *Getting and Spending: American and European Consumer Society in the Twentieth Century* (Cambridge, 1998) pp. 195-222; Stephen L. Harp, *Marketing Michelin*, *Advertising and Cultural Identity in Twentieth-Century France*, (Baltimore, 2001), chaps 3, 6.

[51] See Gijs Mom, 'Roads without rails: European highway network-building and the desire for long-range mobility', *Technology and Culture*, 46:4 (2005) 745-773; Lando Bortolotti, 'Les Premières Propositions d'un Système Européen d'Autoroutes, 1926-1937', in: Albert Carreras, Andrea Giuntini & Michèle Merger (eds.), *European Networks, 19th-20th Centuries: New Approaches to the Formation of a Transnational Transport and Communications System*, B8 Proceedings 11th International Economic Congress, Milan September 1994, (Milan, 1994), pp. 47-59; Frank Schipper, *Driving Europe: Building Europe on roads in the twentieth century* (Eindhoven: SHT/Aksant 2008) pp. 83-158.

[52] I borrow the term 'invoke' from Berg, Löfgren, and Linde-Laursen, *Invoking*.

[53] Jo-Anne Pemberton, 'New worlds for old: the League of Nations in the age of electricity', *Review of International Relations*, 28 (2002) 311-336.

[54] *Proces-Verbale de la Conference International Route Londres-Stamboul, Budapest, 10 au 15 Septembre* 1935, p. 96.

[55] See Wintle, 'Renaissance maps', 143; Harley and Woodward, *History of Cartography*, p. 296ff.

[56] *Proces-Verbale de la Conference International Route Londres-Stamboul, Budapest, 10 au 15 Septembre* 1935 p. 118.

[57] In some ways, this can be seen as a rehearsal of the process described around the EU spatial planning in Jensen and Richardson, *European Space*, esp. 107-8.

[58] *Procés-Verbaux de l'Assemblée générale de l'AIT et de l'Assemblee générale extraordinaire*, Rome 25-30 September 1933, p. 42.

[59] *Procès-verbeaux de l'Assemble générale de l'Alliance Internationale de Tourisme*, London, 1934, p. 50.

[60] See 'Kaapstad-Kirkenes en London-Batavia per Auto!" *Het Vaderland* 2 May 1935.

[61] In *Proces-Verbale de la Conference International Route Londres-Stamboul, Budapest, 10 au 15 Septembre* 1935. p. 11.

[62] *Proces-Verbale de la Conference International Route Londres-Stamboul, Budapest, 10 au 15 Septembre* 1935. p. 11*, p.* 16.

[63] *I Travel the Road*, Pathé film reel, June 12, 1944.

[64] *Minutes of the AIT General Assembly* 1949, p. 54.

[65] *Sunday Times Travel and Holiday Guide to the Continent of Europe,* (London, 1951) p. 440. While mentioning the road, the this book does not so much as mention the existence of Hungary, Romania or Bulgaria, where the road theoretically would have passed; *Clearing the Lines*, Kay Mander (Wessex Films) 1951; *Europa Touring*, (Berne: Hallwag, 1952) pp. 296, 303. Notably, both sections list Paris, and not London as the road's western terminus. The route furthermore appears as a traceable solid line, though not labelled, on the 'synoptic map' in the back of the book.

[66] Much of the road was absorbed into the E-road network as the route E-5, although its path changed to go through Greece rather than Bulgaria. As larger motorways were built, however, this particular route was literally bypassed and can no longer be spoken of as a single road - if it ever really could. On the other ends, a Belgian acquaintance recently told me that his grandparents still refer to the Ostend-Brussels motorway as 'the road to Istanbul'.

[67] On technical networks, see Helmut Maier, 'Systems connected: IG Auschwitz, Kaprun and the building of European power grids', in: Erik van der Vleuten and Arne Kaijser (eds), *Networking Europe: Transnational Infrastructures and the Shaping of Europe (1850-2000)* (Sagamore Beach: Science History Publications, 2006), pp. 129-160. The overall connection between Nazi visions and European ideas is stressed by John Laughland, *The tainted source: the undemocratic origins of the European idea*, (London: Little, Brown and Company, 1997), although particularly approaching this history from a technical perspective leads to a much more nuanced reading than Laughland's.

[68] The sudden closing of the Friedrichstrasse train station in the middle of Berlin caused hysteria in a number of residents. See Joe Moran, 'November in Berlin: The End of the Everyday', *History Workshop Journal*, 57 (2004), 217.

[69] See the 10th anniversary poster put out by NATO in 1959, which shows a wall composed of the flags of the member states of NATO, protecting a mother and child from an unseen threat. See http://www.nato.int/education/images/posters/otan-01.pdf.

[70] See *Clearing the Lines*, Kay Mander (Wessex Films) 1951.

[71] See Ernest W. Wimble *European Recovery and the Tourist Industry* (Report prepared for the International Union of Official Travel Organisations) London, 1948; Valene Smith "War and Tourism: An American Ethnography" *Annals of Tourism Research* 25 (1) 1998 pp. 202-227, Christopher Endy, *Cold War Holidays: American Tourism in France* (Chapel Hill: UNC Press 2004).

[72] See Erik van der Vleuten and Arne Kaijser, "Networking Europe" *History and Technology* 21(1), pp. 42-44, also see Vleuten's chapter in this volume.

[73] See Mom, "Roads", Pär Blomqvist, "Roads for Peace" in Vleuten and Kaijser, *Networking Europe*, Schipper, *Driving Europe,* 159ff.

[74] *Europa Touring* (Berne: Hallwag 1952).

[75] 'Road Map and Pictorial Guide to Western Europe and Adjacent North Africa,' General Drafting Co., New York, 1960.

[76] 'Shell Europa', 1969.

[77] 'Plan a European Tour with Shell Maps – they're free', advert in *World Travel* 56, (Dec 62-feb 63), p. 36.

[78] As Joe Moran reminds us, drawing on Lefebvre, the everyday always fails to keep up entirely with modernity, 'November in Berlin', 227.

[79] 'Neem de Trein op Reis door Europa. Kaart van het Europese Spoorwegnet' Union Internationale de Chemins de Fer (UIC), 1955.

[80] *Europa – Atlas Samochodowy* (Warsaw: Panstwowe Przedsiebiorstwo Wydawnictw Kartograficznych,1985).

[81] See, for example, Susan Gal, 'Bartok's Funeral: Representations of Europe in Hungarian Political Rhetoric', *American Ethnologist*, 16:3 (1991) 440-458.

[82] D. J. Zeigler, 'Post-communist Eastern Europe and the cartography of independence', *Political Geography*, 21 (2002) 671-686.

[83] Ibid., 681-2.

[84] J. Hagen, 'Redrawing the imagined map of Europe: the rise and fall of the "center"', *Political Geography*, 22:4 (2003) 489-517

[85] Jensen and Richardson, *Making European Space*, p. 75.

[86] A SEED Europe, "MATE (Map of Activities on Transport in Europe)," Amsterdam, March 2000.

[87] Jensen and Richardson, *Making European Space*, pp. 75, 250ff.

[88] Ginette Verstraete 'Timescapes: An artistic challenge to the European Union paradigm' *European Journal of Cultural Studies* 12(2) (2009): 157-174.