

# The London Underground Map: Imagining Modern Time and Space

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***It is only a map after all.***

Denis Wood and John Fels, 1986

***One wonders just how many errors, or worse,  
how many lies,  
have their roots in the modernist trio, triad, or trinity  
of readability-visibility-intelligibility.***

Henri Lefebvre, 1991

## I. Modern Cosmologies: Cars, Cathedrals, and Maps

In one of his short essays in *Mythologies*, Barthes equated a new Citroën with the great Gothic cathedrals. He based this equivalence not on any physical resemblance, but on similarities he perceived at the moments of their production and consumption. Barthes saw each as “the supreme creation of an era, conceived with passion by unknown artists, and consumed in image if not in usage by a whole population which appropriates them as a purely magical object.”<sup>1</sup> I would like to consider the London Underground Map in the context of Barthes’s list of “supreme creations,” and I would like to adopt his argument as the starting point of my observations.

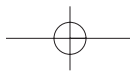
Like the Citroën and the cathedral, the London Underground Map was produced in relative anonymity, the lifework of an unacknowledged, if not unknown, artist. It, too, has been consumed—“devoured” in one account—by “a whole population” both as an object-in-use as well as a way-of-imagining space.<sup>2</sup> Its magic is such that it, in turn, “consumed” the spatial relations which existed before its creation. It is the double movement of anonymity, which Barthes describes, that gives these objects their mythic qualities. Both at the moment of production and consumption, these objects seem to exist outside of human intervention. “Nobody” seems to have made them and “everybody” seems to have the use of them. They seem to have “fallen from the sky.”<sup>3</sup>

The London Underground map that I am referring to is one that appeared in 1933 originally designed in 1931 by Harry Beck. Although it was not the first, nor the last, it is indisputably the archetypal Underground map. One does not have to have been to London or traveled on the Underground to be familiar with it. It often is represented in British tourism advertisements, on souvenir T-shirts, and on postcards of London. Subway maps the world over

1 Roland Barthes, *Mythologies* translated by Annette Lavers (New York: Noonday Press, 1972), 88.

2 Design historian Ken Garland described the public as “devouring the map” in an interview about the London Underground map on a television program on the London Underground map that was part of the TV series *Design Classics*, broadcast in 1994 by the BBC.

3 Roland Barthes, *Mythologies*, 88.



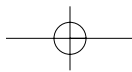


have appropriated its spare, color-coded geometry. It is acknowledged as a seminal work in both the history of graphic design and cartography. It is commonly held out by designers and cartographers as possessing a visual logic and clarity that makes it easy to interpret and comprehend. Even without having seen it or any of its many variants, it is fairly certain that anyone would be capable of making sense of it.

Despite taking Barthes as my starting point, I am not as interested in “skimming off” the messages Beck’s map might contain as I am with exploring the logic that informs it. The very certainty we have of its legibility renders transparent the fact that “reading” the Underground map relies on the possession of particular knowledges of modernity and urbanity. That is to say, the Underground riders of 1933 were able to make sense of the map not because they were versed in the shorthand of information design, but rather because both map and riders shared a common sensibility. It was comprehensible because the logic that underpinned it was coherent with their experience, as modern individuals, of a historically particular time and space. It is this idea of the map as a way-of-imagining not only geographic but, more importantly, social space and (ultimately) time that I wish to explore.

Getting at the meaning of space in maps is particularly problematic because multiple forms of space—the “real” geographic space it reproduces, the coded space of scale and topology, and the presentational space of its design—are overlaid and laminated together in a map. A map also is an object which occupies space in its own right and it is, as Marx points out, the nature of objects to obscure the conditions of their own production. Geographers Denis Wood and John Fels affirm that “there is nothing natural about a map. It is a cultural artifact, a cumulation of choices every one of which reveals a value.”<sup>4</sup> From a pragmatic perspective, a map is designed to fulfill specific purposes or functions: it demarcates national or regional boundaries, guides tourists to historical sites, or assists commuters to negotiate a subway system. But it does so as a presentation of space which is removed from any real experience we are able to have of that space. It is a way of coding a reality we “know” but can never really see for ourselves. As such, maps temper our personal conceptions of the world and mediate our understanding of geographic space. A map is a device by which particular meanings can be imposed on the world: it orders priorities and naturalizes hierarchies of place. Because these factors all collaborate to act as its criteria and its discursive strategy, a map is both a practical and ideological document. In addition, each map has a tense, even though it may appear to be atemporal. It refers to a specific moment (a period, an era) in time (past, present, future) which is revealed in the information it conveys, as well as the style in which it does so. It has a physical form (size, shape, color) which is determined by prevailing conventions and economies of produc-

<sup>4</sup> Denis Wood and John Fels, “Designs on Signs / Myth and Meaning in Maps,” *Cartographica* 23: 3 (1986): 65.





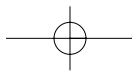
tion and distribution. And because it is conceived in the context of that particular moment, a map is a historical document as well.

Looking at this map as a practical/ideological/historical document and as a cultural artifact brings us closer to understanding it as “representation of space” in the sense that term is employed by Henri Lefebvre. Lefebvre would argue that to attempt to make sense of this map by locating it in the history of cartographic innovation or design history’s stylistic classifications would act precisely to obscure its significance. In *The Production of Space*, Lefebvre asserts that each historic moment generates its own unique type of space, a space which is peculiar to a given society, and to its forces and relations of production. In his conception, modern space is a “product” of capitalism and a social order dominated by the bourgeoisie, just as medieval space was a characteristic of feudalism and the rule of God and king. But social space does not arise as a direct, causal effect of the forces and relations of production. The production of space is a dialectical process, one that is mediated by the social imaginary, the rhythms of daily routine, and perhaps most notably, by the conceptions or representations of space that underpins social life.

For Lefebvre, a representation of space is space as it is conceptualized by “a certain type of artist with a scientific bent:” urbanists, planners, designers, and engineers. “[S]hot through with a knowledge (*savoir*)—i.e., a mixture of understanding (*connaissance*) and ideology,” they are at once “objective” (scientific and universal) and provisional.<sup>5</sup> By virtue of the fact that representations of space are intellectually worked out, they possess a “representational logic” that shapes how we see, experience, and imagine social space. They also have a potent effect on social and political practice, Lefebvre states, because “producers of space” always act in accord with representation, and so produce and reproduce—via architecture but also by more abstract means such as maps, images, and texts—the spatial relations of a given moment. In the Middle Ages, manuscripts, paintings, and architecture reflected spatial relations that were organized around symbols and values. Size signified importance. It was common in paintings and drawings for human beings occupying the same visual plane to be represented in different sizes: scale in representation was a reflection of social power and influence. Lewis Mumford noted that medieval cartography, too, had no concern for factual representations of space, in fact “no interest in anything except allegorical correspondences.”<sup>6</sup> The cathedral was the focal point of the medieval city much the same way that religion was central to the organization of everyday life. The spatial metaphors of rank and power, and place and meaning, were in one sense arbitrary but, like the verticality of the Gothic cathedrals, they are representations of space that are consistent with the spatial relations of the feudal period.

5 Henri Lefebvre, *The Production of Space*, translated by Donald Nicholson-Smith (Oxford and Cambridge: Blackwell, 1991), 38 and 41.

6 Lewis Mumford, *Technics and Civilization* (New York: Harbinger Books, 1963), 19.



In so much as they are bound up with forces and relations of production, and the social order they impose, representations of space are provisional and mutable: transformations of productive forces and relations give rise to new representations. Lefebvre points to the appearance of classical perspective in paintings by the artists of the Siena school, as the emergence of new representations of space that can be traced to transformations of socio-spatial practices and relations associated with the rise of merchant capitalism in thirteenth century Tuscany. The desire of the nascent Tuscan bourgeoisie to provide the urban markets they controlled with a steady supply of food and resources resulted in traditional forms of agriculture being replaced with a system of *métayage* in which the *métayers*, no longer indentured to the landholder, worked in exchange for a portion of what they produced. Lefebvre notes that changes in agricultural practice not only transformed the relations of production, but also altered the layout of the countryside as the *métayers'* houses, or *poderi*, were arranged in a circle around the landholder's villa. Avenues of cypress trees ran between the *poderi* and the villa, dividing and organizing the land, and giving it dimension and significance. The arrangement of the landscape, its echo in the layout of the piazza appearing at the same time in the towns, and the alignment of the countryside with the town as if each other's vanishing-points were, according to Lefebvre, themselves "evocative of the laws of perspective."<sup>7</sup> He observes that the painters of the Siena school "'discovered' perspective and developed the theory of it because a space in perspective lay before them because such a space had already been produced."<sup>8</sup>

Perhaps then it is possible to consider the London Underground map as a new representation of space that, like perspectival painting, in some way captured or "discovered" within its logic of visualization a reality that already had been produced through transformations of productive forces and relations. Such an interpretation might explain how this image, which presented space in as yet unimagined ways, came to be instantly accepted and seen as not only intelligible, but eminently reasonable.

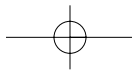
## II. The London Underground Map: A Capital Idea

Beck's Underground map was conceived and created during a period that has come to be identified with monopoly capital.<sup>9</sup> Described by Lenin as the "age of imperialism," it was an era marked by the explosive and erratic expansion of the economy, the final stages of colonization, the internationalization of capital, and the emergence of the world market. Rapid technological change, the transformation of processes of labor, and the ascendance of the modern corporation led to occupational redistribution within traditional industries, both altering the composition of the working class and giving rise to a new managerial class. Modern technologies had opened up a new terrain of production. Industrialization transformed both the

7 Henri Lefebvre, *The Production of Space*, 78.

8 *Ibid.*, 79.

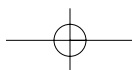
9 Although this period also has been described as the age of finance capitalism, or the age of imperialism, my use of the term monopoly capitalism derives from its use by noted Marxist scholars such as Paul Baran and Paul Sweezy, Harry Braverman, and Fredric Jameson.



process and the product of work. The requirements of mass-production elevated efficiency, functionality, and standardization as new social values representative of the modern era. Experienced in everyday life in the repetitive tedium of factory work and the predictability of mass-produced goods, the ideals of efficiency, functionality, and standardization came to be embraced by certain groups of artists and designers, such as those of the Bauhaus in Germany, who came to see them as the means of eradicating human want and leveling social hierarchies. Increasingly, industry and commerce looked to art and design to create products that appealed to the modern consumer or to create corporate identities that embraced these modern concepts—and obscured the sometimes turbulent processes by which corporations had come into being.

The era of monopoly capitalism generally is thought to have its beginning in the last quarter of the nineteenth century and extending to World War II, roughly the same period that saw the earliest experimentation with electrified urban transportation and the eventual mergers and consolidations of local transit lines into extensive regional networks administered by corporations such as the London Transport Passenger Board (LTPB). By the late 1890s, the electrification of urban transportation came to be considered an instrument of social policy because it allowed the families of industrial workers to escape the squalid conditions of central London's crowded streets and tenements by moving to the outskirts of the city. Tramways were electrified as early as 1888, but the lack of capital investment delayed the electrification of trains. In 1901, American railroad magnate Charles Tyson Yerkes, realizing that the costs of electrification could be more than offset by profits generated by property development, offered to provide financing for the construction of three tube lines on the condition that authorization was granted to extend them beyond the city limits into the outlying country. Yerkes established the Underground Electric Railways Company of London (UERL) in 1902, raising capital for the most part from American investors. Over the next few years, he oversaw the building of the three UERL tubes lines as well as the acquisition of railway, tramway, and omnibus lines. Other entrepreneurs work similarly, building and consolidating transit lines so that, by 1913, Greater London's transit network was divided between the Metropolitan Railway, the London County Council's tramway network (LCC), and the UERL.

It was during these years, too, that the first transit maps, folders, and posters were produced. While mergers had acted to consolidate London transit by reducing the number of operating companies, the system—if it could be called that—was largely disorganized. Their finances depleted by the intensity of competition, the UERL and the other transit companies agreed in 1907 to coordinate their schedules and fares, to operate collectively under the trade name “Underground,” and to produce a comprehensive



map showing all their routes. The first map appeared in 1908 and included the routes of the Waterloo and City Line, despite their decision not to participate. Ken Garland points out that the map created an illusion of a unified system that belied the real status of London's transit system.<sup>10</sup> While on the one hand the map of the newly "branded" Underground could be seen as nothing more than a good way to promote the common interests of the companies which underwrote its production, it also can be said that it gave form to an idea of urban transit that was imminently logical in the context of the moment's drive towards the concentration and centralization of capital.

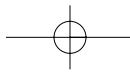
In the years following World War I, there was growing support at different levels of government for the creation of a single traffic authority for the entire London area. After some delay, the UERL, the Metropolitan Railway, and the LCC were amalgamated in 1933 as a public corporation, the London Transport Passenger Board (LTPB). The Board's first chief executive, Frank Pick, was determined to create a transit system which was "rational, scientific, and efficient" in its management, and he saw design as the means of symbolically conferring these values on the newly merged system.

It must be noted that the turn to design at this period was as often motivated by genuine utopian impulse as it was by commercial self-interest. In Britain, the belief that the reintegration of art into everyday life was the only panacea for the excesses of industrialization could be traced to the ideals expressed by William Morris and John Ruskin, and embodied in the English Arts and Crafts Movement of the late nineteenth century. Michael Saler writes that Frank Pick was, perhaps, one of the most active of "a network of prominent individuals in England" devoted to these ideals and to the commitment "to integrate modern art with modern life." He set out to make the Underground "a model of aesthetic integration, [commissioning] modern artists to fashion a unified style for the Underground, from the design of its waste bins to the architecture of its stations."<sup>11</sup>

It is interesting, then, to consider the London Underground map in the context of the LTPB's creative activity, because it was *not* conceived as part of Pick's redesign of the London Transit system. It was neither the product of a corporate strategy nor the brainchild of the designers and artists hired to create promotional materials for the new Underground. As we now know, Harry Beck, a London Transport electrical engineering draftsman, had designed the map in 1931 while he was laid-off in one of the company's many economy drives. His map, with its geometric rendering of the Underground system and its stylized representation of the River Thames, was enthusiastically received by Beck's co-workers. But when he presented his unsolicited design for the Underground card folder to London Transit officials, it was summarily rejected. The London Transit publicity department felt that it was too revolutionary, and

10 Ken Garland, *Mr. Beck's Underground Map* (London: Capital Transport, 1994), 9.

11 Michael T. Saler, *The Avant-Garde in Interwar England: Medieval Modernism and the London Underground* (New York and Oxford: Oxford University Press, 1999), 3, 27.



that its abstract rendering of the transit lines would be incomprehensible to the public.

A year later, at the urging of his fellow engineers, Beck resubmitted his design to the publicity department. This time, the department heads decided to print what had come to be referred to as Beck's "diagram," distribute it without charge at centrally located stations, and solicit the public's response to its design. It made its original appearance in January of 1933, on the eve of the official inauguration of the London Transit Passenger Board. This first edition of the diagram bore the message: "A new design for an old map. We should welcome your comments. Please write to Publicity Manager, 55 Broadway, Westminster, S.W. 1": a less than ringing endorsement of Beck's work on the part of London Transport. However, the popularity of Beck's map with the riders of the Underground was overwhelming. Despite the concerns of London Transit, commuters apparently had little difficulty understanding and using it. Within two months of its initial printing, there were at least 850,000 copies of Beck's diagram in the hands of London's traveling public.<sup>12</sup>

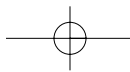
While Harry Beck is not quite as anonymous as the builders of the Gothic cathedrals, he did not receive the acknowledgment his work deserved. His fame is a contemporary and not a historical fact. Beck was given nominal payment for his design and artwork, and his name was engraved on a border of the map.<sup>13</sup> In 1937, he signed over his copyright on the diagram to the London Transport Passenger Board in return for the promise that he alone "should continue to make, or edit and direct, any alterations that might have to be made to the design."<sup>14</sup> Even this incredibly modest pledge was difficult for the Board to keep, and Beck had to vigorously defend his right to supervise and approve changes to his design to a procession of LTPB managers. In 1947, during another period of temporary employment at London Transport, Beck was offered a position at the London School of Printing and Kindred Trades. Recognizing the tentative nature of his job, he left the LPTB and joined the school's faculty.<sup>15</sup> At about the same time at the Central School of Art and Craft, Anthony Froshaug and Herbert Spencer began using Beck's Underground map as a prototype to advance ideas which would later come to be known as information design. Beck never did receive what he most longed for: the value of his contribution to the London Underground seemed never to be fully understood or appreciated by the administrators of the LPTB. Ironically, more than any of the improvements undertaken by Pick and his successors, Beck's diagram became the most sustaining image not only of the London Underground, but of London itself. Beck was never offered a permanent position in the LPTB publicity department. He continued to work on improving and updating the map, most often on his own time and without remuneration, until his death in 1972. That year, his name disappeared from the map.

12 There is some debate as to the quantity of the diagram's first print run. Beck's account states that the initial run numbered in "the hundreds," which would seem appropriate given the publicity department's lack of confidence in the public's ability to make sense of the diagram. Historian and curator Ken Garland notes, however, that there is no record of this initial test run and that all existing documents indicate that the first print order (not, as Beck suggests, the second order) placed in January 1933 was actually for 750,000. According to Garland, this was an immense order, especially in light of the London Transit's apparent reluctance to endorse the design. It was followed up with a second order for 100,000 in February of that same year. See Garland, 18.

13 Beck often stated that he was paid five guineas for the design of the diagram, as he does in a letter to Christian Barman dated January 14, 1960. Ken Garland notes that records show that Beck was paid ten guineas for design and artwork, and that he was paid five guineas for the artwork for a station poster. See Garland, 19, 32, and 53.

14 Ibid., 32.

15 Garland writes that among the subjects Beck taught were "theory and practice of typographic design, colour theory, the history of type design, lettering and general drawing." Ibid., 42.





Wood and Fels observe that “everything conspires to [the] end of naturalizing [a] map, [...] making the decision to produce [it] seem less of a decision and more of a gesture of instinct, [...] making its cultural, its historical, its political imperatives transparent: you see through them, and there is only the map.”<sup>16</sup> Perhaps even more than most, the London Underground map appears as a “magical object,” unencumbered by the strategic intentions of corporate or urban planners. Its creation, it can be argued, was a “gesture of instinct,” unsolicited and widely acclaimed by the public despite corporate reservations. In a strange way, the history of the conditions of production of Beck’s diagram colludes with design history in its nomination as the consummate icon of information graphics, the suddenly obvious solution to the problem of representing London’s sprawling transit system. But what goes largely unquestioned in histories of the diagram is the conception of space that underwrites it.

### III. “There’s no geography down there.”

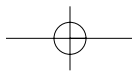
What set Beck’s map apart from the Underground maps that preceded it was that it bore no relationship whatsoever to the geography of the area it represented. The early maps collaboratively produced by London’s transit companies were “literal” representations of distance and topography. Some simplification was attempted as the system expanded and the maps became increasingly complicated to render and to read. In the mid-1920s, a version of the map was produced which eliminated topographical details and used color-coding to differentiate the lines, but it remained “grounded” in geographic space. While this version may seem to have been the precursor to Beck’s map, it was distinctly unrelated in conceptual terms.

Examining Beck’s map of the Underground, it is easy to see why it was referred to a diagram. The River Thames, rendered geometric, is all that links this map to the landform it represents. Gone is the pretense of reality which cartography maintains. Colored lines fan out and interlock. The center puffs out, the margins crowd in. For Beck, the decision to “ignore geography” in the underground map was quite straightforward. He commented in an interview with Ken Garland, director of the London Transport Museum, that it simply “seemed common sense. If you’re going underground, why do you need bother about geography? It’s not so important. *Connections*,” he observed, “*are the thing.*”<sup>17</sup>

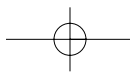
Geography can be seen as expendable only as it ceases to present formidable obstacles to the movement of people and goods. With the introduction of the bicycle, the automobile, and the railway itself, the distances of everyday life seemed to collapse. Simultaneously, the nature of time underwent a transformation, coming to be imagined as something that could be saved in the manner of an object. Contemporary German historian Karl Lamprecht noted

16 Denis Wood and John Fels, “Designs on Signs / Myth and Meaning in Maps:” 65.

17 Ken Garland recounted his conversation with Harry Beck, *Design Classics*. (Emphasis added.)







that, with a marked increase in the ownership of pocket watches at the end of the nineteenth century, people began to imagine time plotted out in short intervals: “five minute interviews, minute-long telephone conversations, and five-second exchanges on bicycles.”<sup>18</sup> This temporal accounting was at its most profound in the workplace, where time savings translated directly into savings of money, but soon rituals of punctuality and time-thrift swept through everyday life.

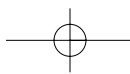
By “ignoring geography” in representation, Beck’s “common sense” perception resonated with the emergent concepts of distance and duration. Earlier Underground maps represented localities in the context of their relationships to each other and to regional features, such as bodies of water or green spaces. By deferring to geography, they also left temporal relations intact. Beck’s map reorganized geographic space, making it conform to the exigencies of the technology. Now, proximity of place was determined by *typographic* (as opposed to geographic) concerns: that is to say that the representation of the distance between stations had to do with the layout of text and graphics rather than the actual geographic relationship between places. In setting aside geographic space in favor of graphic space, Beck’s diagram also dispensed with conventional notions of time, most notably the temporal relationships between places. It set aside the notion of time and space as enduring categories, and presented them instead as highly malleable. Instead of places being linked to places, now points were linked to points (or rather to be completely accurate, “ticks” to “ticks”). While all maps are abstractions, cartographic convention makes use of various visual codes to represent the specificities of place, for example, to identify the size of a town, or to differentiate between towns and cities. Beck’s diagram did away with these spatial distinctions, maintaining only a distinction between stations (ticks) and interchanges (diamonds). Localities were essentially “standardized” for reasons of visual clarity and balance.

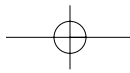
Henri Lefebvre notes that standardization is one of the most marked manifestations of spatial production under modern capitalism. He argues that, with the obliteration of local identity, (social) space is rendered abstract, it becomes “strange”: “homogeneous, rationalized, and as such constraining; yet at the same time utterly dislocated. Formal boundaries are gone between town and country, between center and periphery, between suburbs and city centers. [...] And yet everything [...] is separated, [...] the spaces themselves are specialized just as operations are in the social and technical division of labor.”<sup>19</sup>

The places illustrated in Beck’s diagram exist purely in the context of their utility within the Underground system, as stations or interchanges. In representation, their function is, as Lefebvre describes, both standardized and specialized. And like the operations in the division of labor, these spaces are profoundly interde-

18 Karl Lamprecht, *Deutsche Geschichte der jüngsten Vergangenheit und Gegenwart* (Berlin, 1912) I, 171. Cited in Stephen Kern, *The Culture of Time and Space, 1880–1918* (Cambridge: Harvard University Press, 1983), 110–1.]

19 Henri Lefebvre, *The Production of Space*, 98.





pendent, but only in the context of the operations of the Underground itself. Because the places on the various lines were no longer distinguishable from each other, the map's representational priority essentially shifted from the particularity of the *places* the Underground linked to the *idea* of the Underground as a *conduit* for the flow of trains and people, and ultimately, capital itself. Contemporary critics of the diagram insinuated that the real purpose of the reconfigured map was to deceive the commuting public into believing that the more remote stations were much closer than they really were. But (and here lies the iconic beauty of Beck's map), the fact that the map was unsolicited by the Transit Board discredits the idea that such marketing strategies were a part of the motivation for its design.

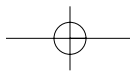
David Harvey notes that the "conquest of space" by transportation in the mid-1800s "shifted the whole sense and valuation of time for all social classes." He points to "[t]he rise of the journey to work as a phenomenon of urban living" which partitioned not only space but time as well.<sup>20</sup> The erosion of the boundaries between urban and rural spaces already was well under way with the beginnings of suburban expansion around London in the early 1900s.<sup>21</sup> One might speculate that the reason Beck's map made no reference to the boundaries between town and country, and between the city and the suburb, was because these boundaries already were disappearing in the public's imagination. The urban center was engorged with importance in contemporary life as well as Beck's map. It was the hub of business, culture, and consumption. The map reproduced the relationship between the city and the localities at its periphery. It rendered these localities within the urban sphere of influence, linking them to the activities and, by association, to the concerns of the urban center. Connections, as Beck observed, were the thing.

The misrepresentation of distance in Beck's map quite accurately represents modern capitalism's notions of time. The distances between stations are arranged in more or less uniform intervals, a strategy more typically employed in the representation of time than of space. Despite the pervasiveness of the idea that "time is money," we know that, in reality, not all time is valuable. Time spent working is valuable and is scrupulously accounted for by employer and worker alike. Leisure time is valuable to those who must rest from their labors and to the leisure industry which profits from the time spent pursuing entertainment of all kinds. But time that is used for neither work nor leisure, such as time spent commuting, is really time without value. As such, not recognizing its duration in representation is completely logical.<sup>22</sup> More important was the speed with which the Underground transported individuals to sites of production and consumption. It permitted the rapid circulation of workers and consumers, and their transformation from one into the other. Lefebvre observes that "[t]ransportation grids exemplify productive consumption [...] because they serve to move people and things

20 David Harvey, *The Urban Experience* (Baltimore: Johns Hopkins University Press, 1989), 173.

21 In a speech to the Royal Society of Arts in London on December 11, 1935, Frank Pick commented that the merging of urban and rural space had more to do with the growing popularity of the automobile than with the extension of railway lines and arterial roads. He noted that "[t]he motor car is planting villas sporadically all over the countryside without any regard for a reasonable economy in the employment of land, so that the distinction between town and country around London is almost wholly breaking down." He argued that, while the "ribbon development" along the railway lines and express coach routes extending from London was seen as the manifestation of this breakdown, these communal modes of transportation were less at fault than the automobile, which permitted far more arbitrary and disorganized expansion. Frank Pick, "The Organization of Transport," *Journal of the Royal Society of Arts*, 84 (1936): 207–219.

22 It is important to note here Beck's own relation to time without value. The diagram was conceived and created at the time Beck was "redundant," laid-off from his job at the London Transport Corporation.





through the circuits of exchange” and ultimately they also help to create them.<sup>23</sup> While it was the access afforded by transportation—in other words the Underground itself—which promoted the development of commercial and cultural enterprises at stations sites, the map made it possible to imagine the city as an arrangement of accessible venues laid out for the purposes of consumption: shops, theatres, museums, and sports and leisure activities all within easy access.

#### IV. Modern Representations and Modern Ideals

In 1994, Beck’s map of the London Underground became the subject of a television series called *Design Classics*. In the program, Gert Dumbar, professor of graphic design at the Royal College of Art in London, called Beck’s map of the London Underground “a breakthrough, [...] revolutionary.” Design historian Philip Meggs refers to it as “the prototype of the modern map.”<sup>24</sup> A copy of the map is in the masterpieces of modern design collection of the Museum of Modern Art (MOMA) in New York City. That the London Underground map can be considered at once “revolutionary” and “classic” in its conception and design, that it can be admired at the MOMA and pocketed daily by commuting Londoners, and that it can occupy these dual positions simultaneously, to look forward and look back, to enter history by rejecting history, attests to its mythic status. But it seems that Beck’s map is all this precisely because it is more. Like the Gothic cathedral, or the paintings of the Seina school, the Underground map captured the emergent spatial relations of its historical moment.

Modern representations are complicit with modern ideals, and this fact has implications for the meaning of things. Beck’s Underground map “is only a map after all”: it identifies stations by name and proximate location, and it shows transfer points. It helps people get around. But it also is an ideal image of modern time and space: orderly, lucid, regular, efficient, and entirely functional. Lefebvre writes that capitalism has “produced abstract space, which includes the ‘world of commodities,’ its ‘logic’ and its world-wide strategies”—a space that is established on flows of capital, communications, and transportation.<sup>25</sup> This might then be Beck’s real achievement: his map was so effective, and so easily comprehensible, because it acknowledged that new developments in transportation and communication rendered existing notions of time and space anachronistic. It acted to overlay everyday life with modernism’s concept of space and time as malleable and serviceable.

23 Henri Lefebvre, *The Production of Space*, 345.

24 Philip B. Meggs, *A History of Graphic Design* (New York: Van Nostrand Reinhold Company, 1992), 304–5.

25 Henri Lefebvre, *The Production of Space*, 53.

