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Early Swedish (Non-fiction) Cinema and Cartography

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Introduction: Innovation and Geographic Distribution of a New Medium

In the years around 1900 locational strategies of film production, distribution and exhibition, as well as film viewing, were part of a larger network of technological, demographic and economic changes. After more than two decades of successful research on the early years of cinema, there are still many blank spaces in our knowledge of how the invention of cinema was spread around the world. In one sense cinema was one new technology among many; on the other hand, cinema was a unique technology that promoted itself. Cinema became the best advertising medium for itself because cinema rapidly inscribed itself in a web of inventions that had one thing in common: technologies that changed the sense of physical distance, technologies that gave geographical locations new meanings, or, communicated through space and by way of space.

Historically, mass-produced geographical images from the late 19th century created the foundation of early non-fiction film production. In fact, early filmmakers producing travelogues, phantom and scenic rides appropriated a topographic genre that had dominated mass production of images since the 1850s. In the Lumière brothers' films, for example, previously reproduced geographical views were framed, but within a new technological setting. During the period 1850–1930, topographical motifs changed marginally, whereas the visual technologies producing them shifted abundantly. Moreover, mass-produced images and films with geographic content acted as possible substitutes for travel. Already during the 1850s, stereoscopic images were praised for their ability to stage a mobilized gaze. In the 1890s, the Keystone View Company, for example, began selling stereoscopic images arranged in larger sets including detailed descriptions of the images, maps—with indicated camera positions—as well as various orientation references to simulate a mediated experience of remote presentness. In addition to geographical images, visual travel attractions—such as the well-known painted panorama 'Maréorama' at the Paris Universal Exposition in 1900—also simulated voyages. Cinema, in turn, developed into an even more elaborate heterotopic medium (to use Michel Foucault's term) with a capacity to represent a number of places within the space of the movie theatre. Geographical non-fiction film, especially, had the ability to expand space and visually transport audiences to foreign places. 'I have seen Niagara thunder over her gorge in the noblest frenzy ever beheld by man—I have watched a Queensland river under the white light of an Australian moon—I have

watched an English railroad train … and I didn't have to leave Chicago for one moment', as Frederick Starr rapturously revealed in the *Chicago Tribune* in 1909 [1].

For every new technology it is possible to discern different diffusion processes. Each tends, though, to follow a similar pattern: a slow start, then a rapid acceptance, followed by a lesser degree of growth, the so-called s-curve. In innovation studies these processes are grouped into two different fields of inquiry: those concerning the spread of information and influence, and those concerning individual differences in the inclination to accept an innovation [2]. Both aspects have been studied during the last two decades of work on early cinema, but are rarely treated together, with the exception of works by Giuliana Bruno, Gregory A. Waller and Ben Singer [3].

'Why were nickelodeons where they were?' asks Ben Singer in an article on nick-elodeon culture in Manhattan, New York, circa 1910. 'A range of factors shaped the distribution of nickelodeons in Manhattan: neighborhood class, population density, ethnic concentration, municipal codes and regulation, transportation patterns, the availability of commercial space, rent rates and so on' [4]. Singer is right—and similar factual categories probably hold true for many other places as well, but they need to be organized spatially as well as temporally. Geographical and cartographic notions are in fact extremely useful in studying early cinema. As Jennifer Lynn Peterson and others have shown, early cinema prior to 1910 was dominated by geographical travelogues [5]. If, as Tom Gunning has suggested, these films were characterized by spatial presen-tation—'the view aesthetic' [6]—cartographic concepts and ideas ought to provide revealing information about early non-fiction. Naturally, scholars of early cinema have used maps and cartographic material, as for example the aforementioned Bruno and Singer in a more local setting. Still, ideas from the field of cartography—as the work of Bruno and literature historian Franco Moretti has shown—can provide new and important cultural historical insights for film historians dealing with early cinema [7].

The debate following Singer's work on New York nickelodeons shows, among many things, that one of the major issues in innovation studies still is relevant: the problem of separating the effects of communication and interpersonal influence from economic and demographic variables. Or, how much can we say about the viewing when studying the films viewed? The communication process (through media as well as in interper-sonal communication) tends to determine the development of the demand for a new technology, while changes in economic, social and other factors tend to cause devia-tions from these trends [8]. The films belong to the first category, what people think about film affects the first, but is often based on both categories. By mapping how the film viewing is situated could be a possible method to investigate these deviations.

These deviations are, in our view, key to any cultural understanding of such innovation processes, as, for example, the dissemination and acceptance of the film medium. Since the 1950s many models for studying innovation processes have been developed. We will focus on two of them, network models and simulation models, and mix them together for the purpose of studying early cinema.

Network models focus on the structure of the connections between different geo-graphically situated nodes, for example sites or individuals. These connections create a web of contact relations. The question, then, is to investigate, for each pair of nodes—as for example cinema theatres—the probability that they are directly or indirectly connected, i.e. the probability that a message is transmitted and accepted from one node to the other. In doing so, a web of possible contacts is created, which are either based on random contacts (a random net) or controlled or directed contacts (a biased net). Biased nets are dependent on many different factors. One of them is of

course physical distance. Larger distance between nodes makes the probability for contacts smaller. For media history every new medium changes the effect of the physical distance factor, and as we shall see, cinema was thereby used as a tool for the dissemination of itself. Nodes can also be grouped together. For individuals the grouping can be based for example on social status, income and profession. Network models tend to see the contacts within the group as random, while contacts between groups are biased, something we are well acquainted with from reception studies. Nodes can also be part of different groups, which increases the probability for dissemination [9]. Questions about groups are probably the most researched areas in reception studies, but the issues of physical distance and the related question of geographical clustering are most often neglected. That is, media's possibility of overcoming distance is taken for granted. This, however, is not true today, for example when one looks at the distribution of web site registrants, and it was most certainly not true at the beginning of the 20th century.

Studies on the introduction of cinema have so far followed the most common model for the introduction of new media: starting with capital cities, followed by smaller cities and their surroundings, with the implied assumption that it is the same phenomenon all the way down to the village cinema theatre. As long as a region or a nation has a simple and regular structure, this could be a functional model. But most geographical areas are irregular, building a network of middle-size cities with different political and economic conditions and with different infrastructure. Prominent work on film culture in smaller or larger cities, such as the work by Richard Abel on Des Moines, Iowa, has problematized this hierarchical diffusion model [10]. These studies also emphasize the importance of going local.

The Swedish geographer Torsten Hägerstrand, among geographers an internationally acclaimed proponent for including issues of time in geography—the so-called *time-geography*—distinguished between three different phases in the dissemination of innovations: (1) local aggregations of initial acceptances (initial agglomerates); (2) a radial dissemination from initial agglomerates and a development of secondary agglomerates with an inner density; and (3) a decreased growth. Based on these kinds of regularities, Hägerstrand developed a series of spatial models in order to analyse and explain them. By way of simulations, he created 'synthetic' innovation processes that later were compared with empirical data. In this way he could, for example, easily see that random models differed from empirical studies. But how to study the irregularities and the powers of acceptance of early cinema? The Hägerstrand model would be worthwhile trying, although its structuralistic undertones may frighten some. So far, similar approaches have been most apparent in the work of Singer and Bruno. Their studies, though, still focus on metropolitan areas, New York and Naples, as more or less isolated islands. The many arguments for early cinema as dominated by travelogues and other filmic journeys indicate that geographical relations could be of use even for local studies. Especially since, in Hägerstrands terms, the processes behind initial and secondary agglomerates are not necessarily the same. For people in smaller towns, knowledge about cinema was different, knowledge about other 'spatial' technologies was different, and the sense and meaning of place was different. Or, to use another time-geographical terminology, the physical, social and economic constraints in a small town were different from those in a larger one [11].

Between 1895 and 1930 the film medium passed through the three different phases in the dissemination of innovations. As Hägerstrand and others have shown, it was during the second phase, when growth is significant, that geographical differentiation

may have been the most important factor. In the case of early cinema there is a consensus that this phase occurred from around 1905 until 1920. In some countries, as in Sweden, the period can be extended to the mid-1920s. Geographically speaking it is during the era of narratively integrated fiction films that the study of non-fiction geographical images is most important. When cinema became a major medium, largely because cinema theatres were built around the world, the impact of the geographical images, even those within fiction films, became most important. That was most likely the period when the possibilities of the film medium to communicate its own advantages were larger than ever before (or after). Since non-fiction films continued to be present in the film programs during the 1910s and 1920s, they are important for us today. Through them we can, for instance, follow how cinema was disseminated and accepted via the building of more intricate relations between the geographical nodes that originated from the early years of cinema.

Early cinema was, thus, closely linked to various geographical ideas. We propose that cartographic models need to be further examined when dealing with early non-fiction cinema. In short, the article outlines a vague spatial methodology. The empirical material is primarily of Swedish origin and the article is closely related to an ongoing project on the geographical mediation of Sweden—'Landscape in Motion: film, TV and cultural topography' [12]. By discussing a number of disparate, yet illustrative, topographic examples—photographs from a long-distance truck drive in 1909, the theory of time-geography, the industrial film *Sverige och Svenska Industrier* (Sweden and Swedish Industries) and the early mediation of a Swedish city—our article tries to elaborate and expand the field of inquiry of early cinema in a cartographic direction.

What follows is a case study of a small town, Härnösand, dominated by trade and regional administration. The case study revolves around one particular form of network of nodes—growing tourism—central for the communication of industrialism and central to the understanding of early cinema as spatial experience.

Case Study: Härnösand—mapping a Swedish city

In 1885 the city of Härnösand—situated on the north-east coast of Sweden—became the first European city to be completely electrified. A local power plant made it possible to flood its gloomy streets with electric light, probably the only event that makes this city unique from a European perspective. Nevertheless, turn-of-the-century Härnösand is well suited for an analytical micro-nodal case study on cartographic perspectives on early cinema. Härnösand was founded towards the end of the 16th century as a port and trading commercial town. In 1721 the Russian fleet completely destroyed the city, but during the 19th century it prospered from export of timber, becoming one of the 20 largest cities in Sweden. In March 1897 the local daily *Hernösands-Posten* reported that the city had hosted its first screening of moving images [13]. A number of Lumière films were projected by a traveling showman; during the years after the turn-of-the-century, Härnösand was frequently visited by other showmen. By 1907 the city had two permanent cinemas, Hernösands-Biografen and National-Biografen, which served the approximately 10,000 inhabitants.

Mass-produced images of Härnösand, for example picture postcards, were rare in Sweden before 1900. Few Swedes would in fact know what this city looked like. It is sometimes argued that the growth of tourism in turn-of-the-century Sweden-strongly supported by the Swedish Tourist Association, stimulated the growing postcard industry. Swedish postcards soon were printed in vast numbers, and as they were within the

financial reach of the working classes, they became the most common images of Sweden before the First World War. The craze for sending cards to each other with brief messages rapidly increased, and within Sweden in 1904—with a population then of approximately five million inhabitants—48.7 million postcards were sent [14]. By 1900 the art publisher Axel Eliassons Konstförlag dominated the Swedish postcard market. The northern parts of Sweden were attractive for tourists and to some extent Härnösand cashed in on the Lappland craze. A number of postcards, mostly produced by Eliasson, were printed with motifs from Härnösand (Fig. 1).

In one of the Swedish Tourist Association's guidebooks, published in 1904, a city map of Härnösand was included (Fig. 2). The postcard locations were indicated by large arrows and capital letters on this map. The mimetic motifs on the displayed postcards are approximately the real sights one would encounter on the indicated sites. The greyish figures, originally on the map itself, are the sightseeing spots the Swedish Tourist Association singled out as important sites in Härnösand. The cartographic illustration includes a few larger arrows, indicating positions from where other postcard shots were taken. In addition, black and white arrows indicate shooting positions from where a local non-fiction film of Härnösand was shot.

On the basis of this cartographic model one can detect three different nodal systems of Härnösand prior to 1910: filmic nodes, postcard nodes and guidebook nodes. They form a palimpsestic grid of sights and sites from which historical information can be extracted. Hence, empirically it is possible to deduce cartographic statistics of frequently mediated places in downtown Härnösand. As is evident there is a concentration of nodes in central Härnösand. Still, a number of postcards were photographed from the outskirts of town. Interestingly, the sights offered by the Swedish Tourist Association were only reproduced to some extent, predominantly in moving images. Naturally, the grid does not include all published postcards or guidebooks on Härnösand. Moreover, only a single non-fiction film shot in Härnösand is used in the cartographic analyses. Yet, the model gives a general idea what spaces and places were considered to be important in Härnösand. To the far right in the cartographic illustration, for example, a concentration of postcard nodes can be seen at the tower of the Hernösand Navigation school, a kind of *bellevue*. The same holds true for the postcard nodes centred on the cathedral in Härnösand. Completed in 1846, the cathedral was one of the city's major architectural attractions. As exemplified by the postcards B and D on the map, the cathedral offered photographers a way of framing the surrounding topographical space.

The black and white arrows on the detailed map of Härnösand's city centre (Fig. 3) refer to a few filmic nodes from the only existing early film fragment of Härnösand, *Bilder från Hernösand* (Images from Hernösand) produced by Swedish Biograph in 1908. Each arrow—with the direction indicated—represents a shot in this five-minute city film (Fig. 4). Like other early Swedish film producers, Swedish Biograph based its initial non-fiction film production on prior topographic images such as postcards. These had already proven to be commercially successful, hence, visual strategies were appropriated and spaces and places were depicted anew. In 1905, series bearing the name *Swedish images*, for example, were common to film, slide and postcard production. In fact, the most striking of the local city films by Swedish Biograph—around 30 of them were produced between 1907 and 1908 from various cities—was the visual relation to picture postcards. The local city films, sometimes described as postcards in moving images, with titles like Bilder från Kalmar (Images from Kalmar) (Swedish Biograph, 1907) or Bilder från Malmö (Images from Malmö) (Swedish Biograph,
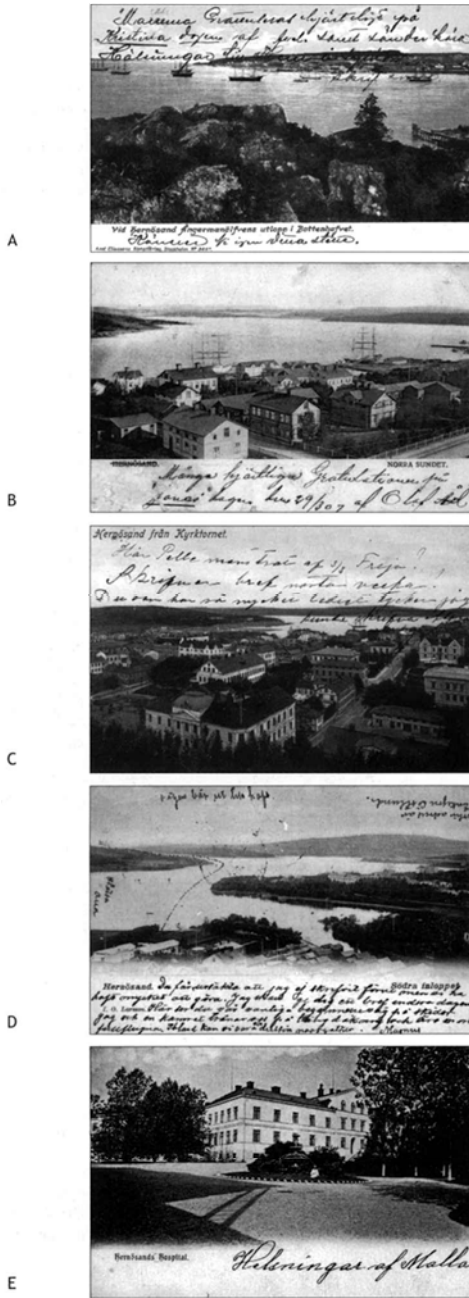
FIG. 1. Local picture postcards of the city of Härnösand, in the north of Sweden, produced between 1904 and 1906. Before 1910, it was correctly spelled Hernösand.

1908), are mostly lost, but a limited number are found at the Swedish Television Archive.

Internationally, almost everyone within the film business knew that local pictures were popular. An article in *Moving Picture World* (1909), for instance, lamented the

Fig. 2. The Swedish Tourist Association's city map of Hernösand from 1904, with nodal system.

nickelodeon craze for local pictures. Apparently, the demand threatened film pro-
duction since 'local views cannot be used for an entire evening's program; interesting
and novel as they may be, they become monotonous even to those who seek them'.
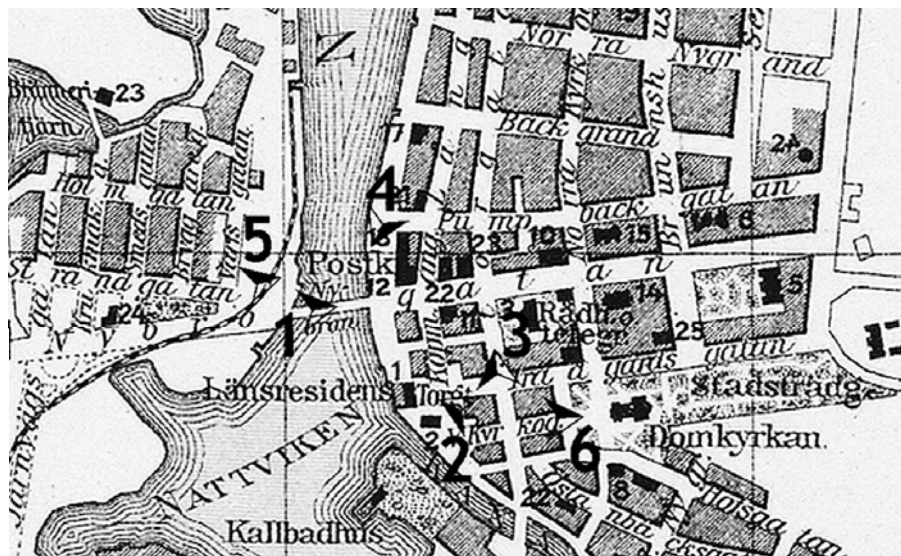According to *Moving Picture World* local film was furthermore deemed unprofitable

Fig. 3. Enlarged detail, of the city centre of Hernösand, taken from the 1904 Swedish Tourist Association's city map. The arrows represents a few shooting positions in the local city film *Bilder fran Hernösand* (Images from Hernösand) (Swedish Biograph, 1908).

because the potential audience was limited. 'A picture taken in a particular town is of no value outside of it [and] it would put to sleep an audience fifteen or twenty miles away. Like newspapers [local pictures] are looked over and then thrown upon the scrap heap' [15].

Swedish Biograph, however, successfully pursued their local strategy. Nearly all of the company's local city films, for example *Images from Hernösand*, began with a train arriving at the towns' railway station, suggesting an imaginary visit. Thereafter sights and tourist attractions were filmed, mostly using slow pans. The architectural sights of the city were depicted, such as the cathedral in Härnösand. While postcards showed empty spaces, Swedish Biograph primarily sought to film people and places in movement, focusing, for example, on local markets and schoolyards. In contrast to the empty spaces of the postcards from Härnösand, the cinematographer of *Images of Hernösand* went to places with motion in order to fill space. The attraction of film was that it moved and therefore cinematographers primarily shot places with some kind of action, as the number of filmic nodes in the city centre attests to. Picture postcards, on the other hand, seem to have been more likely to feature distant views with perspective, as indicated by the nodes of larger arrows outside and around Härnösand.

It comes as no surprise that Swedish Biograph's local city films were popular among locals. Looking into the camera, people watched the filmic apparatus, and sometimes the technology became the attraction instead of the city depicted. Swedish Biograph, however, was not only a film production company—it also owned movie theatres. Hence, a local city film such as *Images from Hernösand* was most likely shot because the company had bought or built a new cinema in the town depicted. Acting as an advertisement for the movie theatre, city life was filmed and, in a meta-filmic gesture, the images recorded occasionally included sequences of the new cinema as well.

FIG. 4. Frame enlargements from the local city film *Bilder fran Hernösand* (Images from Hernösand) (Swedish Biograph, 1908). Courtesy of the Swedish Television Archive.

Advertisements in the local daily press then enticed people to see what their city looked like—with the possibility that they might see friends, family and maybe even themselves on the screen.

It remains difficult, however, to state what audience was attracted by Swedish Biograph's local city films. A meta-filmic sequence shot outside the local cinema in the city film *Bilder från Nyköping* (Images from Nyköping) (Swedish Biograph, 1908) indicates a heterogeneous audience, mostly young persons and workers. The spaces depicted in local city films, however, were not the ones where the working classes lived. On the contrary, Swedish Biograph concentrated on bourgeois spaces and scenic sights in the local towns—singled out by the Tourist Association's guidebooks—with the intention perhaps of improving the audience: a cartographic fact evident if one compares the filmic nodes on the map of Härnösand with the guidebook nodes. Nevertheless, it is most likely that working-class spectators dominated the audiences—especially in larger cities where the middle class had other attractions.

For most working-class audiences living in Härnösand, the city itself constituted the boundary of the world. Arguably, cinema, and notably geographical views, expanded space and broadened the horizon for local inhabitants living in small cities or in the countryside. One might, thus, argue that the importance of geographical films was larger in a city like Härnösand than in, for example, a bigger one such as Stockholm. In that respect geographical moving images must have been the most effective proponent of the film medium. Unfortunately, as a consequence of this, the films themselves thereby become problematic to be used as 'evidence' of their reception.

Framing an Era: industrial development and film images

Early cinema was, as the film industry still is, closely integrated in larger economic, social and geographical systems. They did meet early on, but it was not until the expansion phase that they converged in the industrial films [16]. Many industries used photography and film to situate them geographically as well as economically. In Sweden, the beginning of the 20th century saw many new branches and companies, as well as older companies that sometimes changed direction and moved to new locations better adapted to where the markets were situated. These changes were documented, often visualized for communicative purposes.

One interesting example was the car, truck and bus manufacturer Scania. The company was set up in Malmö, in the south of Sweden, in 1891 and rapidly became one of Sweden's largest manufacturers of motorized vehicles. Scania competed in the many car and truck races that took place around the country, most often in Stockholm or Göteborg. These competitions were documented, and they became popular events and were much written about in the daily newspapers. Scania, as a company located in the south of Sweden, had to drive the cars or trucks a long way to get to the event, and the mediation of the journeys themselves became as important as the races. Since all sorts of motorized vehicles were associated with transport and quicker ways of overcoming physical distance, movement in space was not only a keystone in advertising, but formative for all aspects of corporate identity and communication. This is also evident in advertisements for other modern products.

In 1909 Scania made a journey through Sweden—from Malmö to Stockholm, 700 km in 33 hours. Apparently, this was the first long-distance truck drive in Sweden. Scania's own photographer, A. Möller, documented the journey (Figs 5 and 6) in a way that resembled early travelogues. The focus was on the road and the functioning of the truck, but also on the landscape and a few incidents along the road. The result was not only a way of saying that the Scania truck was the best one on the market. The photographs, and through them Scania, were also deliberately inscribed in a discourse

Old ways meet new – horsepower meets cowpower in darkest Småland province. What is the petrol situation? Those three barrels on the truck bed have a total capacity of 420 litres. There are still 300 litres left.
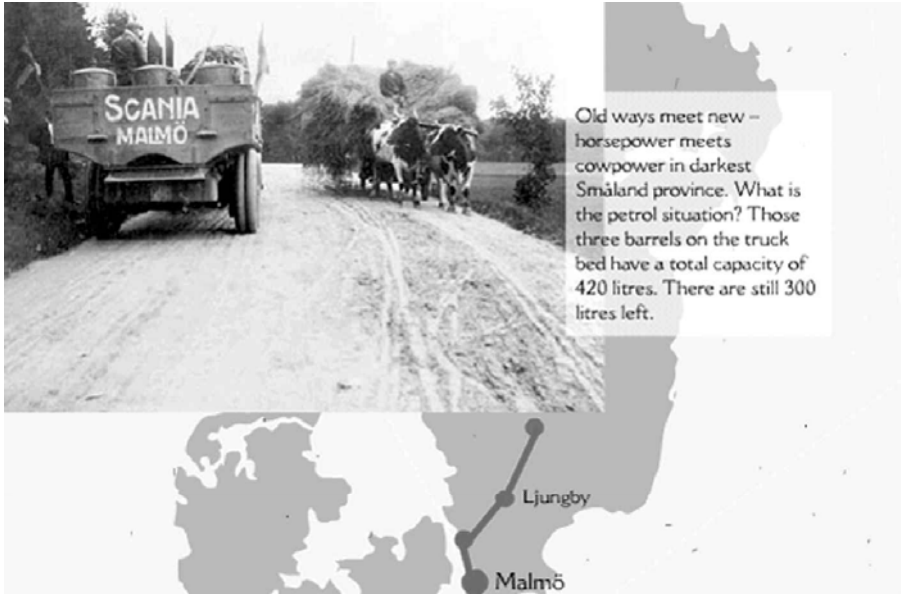
FIG. 5. Scania 1909—photograph by A. Möller from a long-distance trip by truck (in the middle of the agricultural and forestry region of Småland). Map of Sweden as it appears in *Scania World Millennium* (CD-Rom). Courtesy of Scania CV AB (publ).

of transportation, emphasizing a new perception of physical distance and its mediation in a technologized industrial nation.

Thirteen years later, in 1922, the Swedish government commissioned the leading industrial film production company Tullberg Film to make a one hour-long compilation of short industrial films (individually made by the various companies themselves) entitled *Sweden and Swedish Industries*. The film still exists in an incomplete print at the Swedish Television Archive. Since it was made to be screened abroad, primarily on the promotion journeys of the Swedish battleship *Fylgia*, no particular consideration to existing Swedish film audiences was necessary. But the film gives a completely different image of Sweden than contemporary fiction films, which is not entirely without interest for film historians. On the contrary, by mapping a Sweden outside the cinemas, where people lived and worked and where they got their money to go to the cinemas, industrial films can tell us more than fiction film on the nature of film reception.

Sweden and Swedish Industries is presented with intertitles in English and Chinese. Each part begins with a very young Greta Gustafsson (soon to be Garbo) in front of a map of Sweden showing where the following sequences take place. The first intertitle explains what the film is about: 'This series of motion pictures was made for the Swedish Government by Hasse W. Tullberg of Stockholm, for the purpose of spreading information about Sweden in the Far East' [17].

The film begins in Stockholm, showing some tourist sites, then follows the foundations of economic growth of the Swedish nations, and its regions. The expanding tourism was obviously important for the dissemination of information about the expanding industrialism. Traditional city views and images of street life are put together to present Stockholm as a modern city with a reliable infrastructure and, most important, with an advanced educational system in the service of trade and industry.
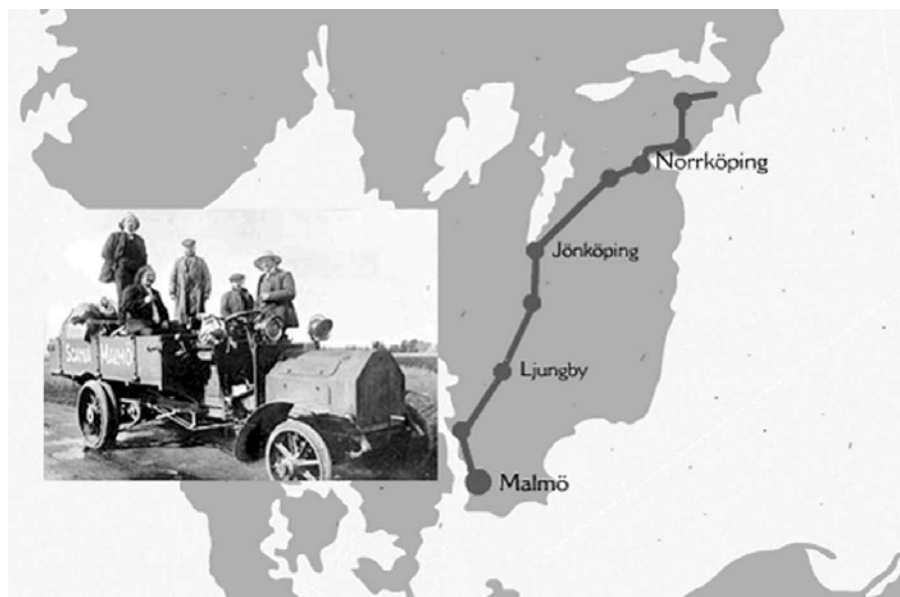
FIG. 6. Scania 1909—photograph by A. Möller; approaching Stockholm after 3 days on the road. This photograph was widely reproduced in newspapers in the following days. Map of Sweden as it appears in *Scania World Millennium* (CD-Rom). Courtesy of Scania CV AB (publ).

Many of the opening shots were used in other films for different purposes. In *Sweden and Swedish Industries* they established the main argument: the economic growth and strength of Sweden. At the same time a second and a third argument are presented. The economic power of the nation is based on cultural and industrial traditions emanating from the wealth of Swedish nature; all set in a beautiful landscape.

The transition from the establishing sequence of Stockholm to the first industry considered in the film is, therefore, secured via a ride through the landscape. Outside Stockholm the first industrial footage is presented: 'Instrument Aktiebolaget Navigator, makers of the Navigator Log, the principal automatic ship's log in the world'. If we see the Stockholm sequence and the Navigator sequence as the first impression a foreign audience will have of Sweden and Swedish industry, three things seem to be particularly important. First, Sweden should be seen as a highly developed country when it comes to infrastructure, education, trade and high-tech industry. Second, this high level of industrialization is not only of local or regional importance in Northern Europe; the widespread use of Navigator logs is an example of the international importance of Swedish industry. Third, the socio-economic network is visualized by cinema, and also kept together, or even constituted by modern media. The film medium is not just a vehicle for images of economic growth, the nodes creating the network of the, by that time, well-institutionalized film industry, participate in the growing importance of a larger mediated, technologized economic and geographic network.

In part two Greta guides us to Göteborg, focusing on international trade and heavy industry, the ball bearing manufacturer SKF, before the film continues with images from the harbour of Malmö. Part two ends with scenic shots from a fishing village on the west coast of Sweden, and snowy winter scenes. Part three, in turn, begins with more snowy scenes, from the locks of Göta canal to the state power plant in Trollhättan.

Via this short journey the film reached the most important part of Swedish industry at that time—electricity. Central to the treatment of ASEA is the promotion of international trade in transformers and other power plant equipment. It is also worth noting that the emphasis on transportation is maintained, from the Navigator logs and SKF ball bearings, which were also used in the Scania truck mentioned above, to ASEA's electric locomotives. The Swedish heavy industry was not to be regarded as conservative or provincial. The film leaves ASEA, and begins to explain where the ASEA motors and transformers are used: on electric railways and hydroelectric power plants in Sweden, Norway and Canada. Some market scenes from Stockholm replace the heavy industry, but *Sweden and Swedish Industries* soon continues with the Swedish iron industry. Greta helps us to locate the most important companies. Part four concentrates on the production of weapons, especially the Bofors company, and ends with a short sequence in a rural setting, a Swedish farm during harvest where the girls on the farm bind the grain by hand and drive harvesting machines. Thus, tradition and modernization went hand in hand in Tullberg's Sweden. The final part concentrates on another of Sweden's most important industries in the 1920s, the wood and timber industry. Again, Greta shows on the map where the economically most important forests, and the major sawmills and lumber factories are located. The film, thereafter, ends at Gripsholm Castle where a slow tracking shot stops in front of two Russian cannons. A very symbolic end, at a royal castle with cannons as trophies of past military victories. The message was clear: Swedish industry will continue its tradition, only this time we sell the weapons—we do not use them [18].

Sweden and Swedish Industries is only one example of almost 100 films produced by Tullberg Film that survives in archives in Sweden. Most of them can be found at the Swedish Film Institute and the Swedish Television Archive [19]. Sweden and Swedish Industries may give a good picture of how Sweden and Swedish industry wanted to be seen in the 1920s: a peaceful country where tradition and modernization went hand in hand with an industry that claimed international importance. On the other hand, the film can be seen as a 'propaganda film' for a nation and an industry ready to make money from a Europe in ruins and a colonial world facing more wars. Therefore, Tullberg Film was particularly far-sighted in using the young Greta Gustafsson—soon to be Greta Garbo—to promote products you need for modern warfare.

Most importantly, the film illustrates how an individual film followed not only the paths of economic prosperity in Sweden, but also the path of the rapid dissemination of the film medium during the 1910s. The map used in the film would have been something like a national equivalent to the German *Kino-Pharus-Plan* discussed below. The film also went parallel to the development of the style and narration of films during the 1910s. But it is more important to see how non-fiction films like *Sweden and Swedish Industries* inscribed film images into the spatial network of nodes that were the key to the growing industrial society.

The photographic journey of Scania in 1909 and *Sweden and Swedish Industries* can both be seen as examples of how cinema was disseminated as a new medium. Similar films were communicating the new medium, visualized the possibilities of overcoming distance by new media and communication technology, and documented the new network of mediated relations, so important to the dissemination of other innovations. Thus, what we propose is the use of geographic perspectives in studies of early cinema, and, at the same time, the use of early cinema to study histories of communication as the intricate webs of relations between individual nodes or nodes clustered geographically. The past two decades of early cinema studies have given empirical evidence that

the film experience was to a large degree a spatial experience. Therefore it is time for early cinema studies to adopt different geographical perspectives and methods. The most rapid expansion of the acceptance of the new invention cinema seems to have been in important industrial nodes, which, if it proves to be that way, would be an argument for seeing cinema as a medium for the working and lower middle classes. This brings us back to Singer's question, but from a slightly different angle. Is it possible to simulate the network of nodes relevant for the uses of media at the beginning of the 20th century, or who went to which cinema to see what? To answer this not only are new perspectives needed, but it is time to look for new sources.

Towards a Conclusion: *Kino-Pharus-Plan*

In 1919 the renowned German map publisher, Pharus Verlag Berlin, printed the startling city map *Kino-Pharus-Plan*. A copy of it is kept at the Staatsbibliothek Ost, Berlin. The *Kino-Pharus-Plan* was, literally, a cinematic map of Berlin, graphically displaying all the city's cinemas. Of course, the map does not provide all the necessary information on Berlin film culture during the teens. Yet, for film historians it is an extraordinary empirical source. In fact, by using a similar methodology as mapped out above in this article, the *Kino-Pharus-Plan* and the ideas behind it are to be further investigated in a project on Berlin's film culture around 1910—'Cinema and Cultural Globalization 1905–14: markets, audiences and the public sphere'.

Thus, we will conclude this article with an analysis of the *Kino-Pharus-Plan*. Although in need of further substantial research, from a cartographic perspective, the *Kino-Pharus-Plan* seems to affirm that the Berlin 'nickelodeon boom' in 1907 foremost took place outside the city centre. During the early teens, the commercial popularity of Berlin's city centre seems to have somewhat diminished. Cinema owners, instead, wanted establishments in closer connection to the new transportation network. This is evident on the *Kino-Pharus-Plan*, where Berlin's vast public transportation system— including train stations, *Straßenbahn* (tram) lines and the *Hochbahn* (a subway below and above ground)—meticulously was inscribed and mapped out along with all of Berlin's cinema theatres. There were hundreds of them scattered over town, primarily in conjunction with the transportation net. The *Kino-Pharus-Plan* graphically divided the cinemas into three categories: movie palaces with almost a thousand seats, cinema theatres for a few hundred people and smaller local 'nickelodeons'. Why Pharus decided to produce it and the context surrounding it remains to be investigated. It seems likely, however, that the company thought it had commercial potential. Given the interest in the medium of film—which after the First World War was increasing, partly because of Hollywood and partly because of the extended artistic merits of cinema—Pharus probably tried to cash in on and satisfy a public demand from audiences eager to know were Berlin's cinemas were located.

In the district of Prenzlauer Berg, for instance—on the eastern side of Berlin north of Alexanderplatz and the city centre with the Kaisergalerie—there were some 20 cinemas according to the *Kino-Pharus-Plan*. Audiences travelling with the *Hochbahn* along the Schönhauser Allee, for example, could choose between Prater Lichtspiele, Welt Theater, Filmpalast Puhlmann and Mila Lichtspiele. At the Berliner Prater, an outdoor establishment and *Biergarten*, moving pictures were shown parallel to vaudeville acts. Actually, the brothers Skladanowsky had one of their first screenings at the Prater during the late 1890s. The oldest proper cinema theatre in Prenzlauer Berg, however, was the *Ladenkino* (nickelodeon) Welt Theater. According to Peter Mänz it

opened in 1906 and featured 400 seats—by that time an unusually large cinema with international standards [20]. A year later Berlin is reported to have had 139 nickelodeons [21].

Thus, to conclude, one of the more intriguing aspects of the *Kino-Pharus-Plan* was the way it graphically displayed the relation between entertainment establishments and transportation technology. Of course, logistics were also important for pre-cinematic establishments, but in 1919 Berlin's transportation network had dramatically increased. It is hardly surprising that Berlin cinemas during the teens were located alongside public transportation lines. Facile logistical access to entertainment nodes was, of course, as important then as it is now. Thus, the *Kino-Pharus-Plan* gives cartographic, empirical evidence of the discursive relation between logistics and entertainment, and invites one to ponder on the geographic strategies involved in the establishment of new cinema theatres.

It seems, finally, that these strategies were based on where potential audiences and prior cinemas were located. Without going into detail on the social composition and class structure of early cinema audiences, the *Kino-Pharus-Plan* supports the notion that audiences, as in Härnösand, essentially were working-class people. The district of Prenzlauer Berg was working class—albeit not as red as *Rote Wedding* (Red Wedding), the district bordering to the west. In 1919, when the *Kino-Pharus-Plan* was published, both Prenzlauer Berg and Wedding were districts in the northern parts of Berlin. They lay remote from the city centre but contained an unproportionly high number of cinemas because of these districts' dense population structure. Thus, if one follows the *Kino-Pharus-Plan* both the transportation network, prior cinemas and population density contributed to where new cinemas were located.

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NOTES

[1] Frederick Starr, Moving pictures [?], *Chicago Tribune* 7 February 1909.

[2] Gunnar Törnqvist, *TV-ägandets utveckling i Sverige 1956–65* (The Development of Television Ownership in Sweden 1956–65) (Stockholm, 1967), p. 213.

[3] Guiliana Bruno, *Streetwalking on a Ruined Map* (Princeton, 1993); Gregory A. Waller, *Main Street Amusements: movies and commercial entertainment in a southern city 1896–1930* (Washington, 1995); and Ben Singer, 'Manhattan nickelodeons: new data on audiences and exhibitors, *Cinema Journal*, No. 3 (1995). In a number of subsequent issues of *Cinema Journal* Manhattan's nickelodeon culture around 1910 was debated. See, Robert Allen, Manhattan myopia; or, Oh! Iowa!'; Ben Singer, New York, just like I pictured it …; and Sumiko Higashi, Dialogue: Manhattan's nickelodeons, all in *Cinema Journal*, No. 3 (1996); and William Uricchio and Roberta E. Pearson, Dialogue: Manhattan's nickelodeons; Judith Thissen, Oy, myopia!; and Ben Singer, Manhattan melodrama, all in *Cinema Journal*, No. 4 (1997).

[4] Singer, 'Manhattan Nickelodeons'. For a discussion on the social composition of early cinema audiences, see the anthology *American Movie Audiences*, Melvyn Stokes and Richard Maltby, eds (London, 1999).

[5] See, for example, Jennifer Lynn Peterson, *World Pictures: travelogue films and the lure of the exotic, 1885–1935* (forthcoming).

[6] Tom Gunning, Before documentary—early nonfiction films and the 'view' aesthetic, in Daan Hertogs and Nico de Klerk, eds *Uncharted Territory—essays on early nonfiction film* (Amsterdam, 1997).

[7] See, for example, Bruno and Franco Moretti, *Atlas of the European Novel* (London, 1998).

[8] Törnqvist, p. 179.

[9] Ibid. p. 190.

[10] This is obvious in the above-mentioned work by Bruno and Waller, but also in Richard Abel's work on Des Moines, Iowa. See, for example, *The Red Rooster Scare—making cinema American 1900–1910* (Berkeley, CA, 1999).

[11] Torsten Hägerstand, What about people in regional studies, *Regional Science Association Papers*, XXIV (1970), pp. 7–21.

[12] The research project 'Landscape in Motion: film, TV and cultural topography', is led by Mats Björkin and financed by the Bank of Sweden Tercentenary Foundation (Riksbankens Jubileums-fond).

[13] 'På förevisning med kinematografen' (Visiting a show with moving pictures), unsigned *Hernösands-Posten*, 19 March, 1897.

[14] Ulla Ehrensvärd, *Gamla vykort* (Old Postcards) (Stockholm, 1972), p. 37.

[15] Oliver, Observations by our man about town—local pictures', *Moving Picture World*, 28 August 1909. For a discussion on local and regional film production in a German context, see, *KINtop*, No. 9 (2001).

[16] The following discussion is based on the part of the research project 'Landscape in Motion', that focuses geographical issues on the history of corporate communication.

[17] The intertitles cited in this essay are quoted as they appear in the film, including anglicization of Swedish names.

[18] In 1927 an article in a Soviet journal made fun of Swedish history in commenting upon Tullberg's screening of industrial films in the USSR: 'Icke med vapen utan med film' (Not by arms, but by films), *Biografbladet*, No. 18 (1927), p. 473.

[19] Many of the prints at the Swedish Film Institute cannot be viewed as they currently exist only as negatives.

[20] Peter Mänz, Ein Jahrhundert Kinokultur: Prenzlauer Bergs Lichtspieltheater in Wandel der Zeiten (A century of film culture: the transformation of Prenzlauer Berg's cinema theatres), in Prenzlauer Beig Miseum, ed., *Komm in den Garten: Kino in Prenzlauer Berg / Prenzlauer Berg im Film* (Welcome into the Garden: cinemas in Prenzlauer Berg / Prenzlauer Berg in film) (Berlin, 2001), p. 15.

[21] See, Sylvaine Hänsel and Angelika Schmitt, eds *Kinoarchitektur in Berlin 1895–1995* (Cinema Architecture in Berlin 1895–1995) (Berlin, 1995).

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