

Sensory ethnography and film interpretation: sociological readings of historical archives

Peter Cox

University of Chester

Introduction

Recent work in sensory ethnography, especially as applied to the study of mobilities makes extensive use of video recording as a means of making field notes. A body of literature has built up around these mobile methodologies and the practices of interpretation connected with using this data. Drawing on these approaches to mobile methods and visual research the author undertook a six month study to explore the sensory experiences of cycle riders as urban (and peri-urban) travellers.

At the same time, investigations were undertaken using conventional analyses of photographic and written archive materials to locate current practices in historical contexts. During the course of this investigation it became clear that there were also film documentary sources that could inform this research. This then raised a question as to whether existing historical film sources could be “read” and interpreted using the same analytical frameworks deployed for the interpretation of the video field notes captured in the investigation of sensory experiences.

This chapter outlines the methodological procedures involved in the analysis and the result of initial attempts to deploy these in relation to historical sources. By connecting approaches developed in the context of digital recording of mobile experience to extant analogue film sources it considers whether such connections can enable a richer understanding of historical mobile subjects. While visual analysis suggests that film-makers’ intentions, especially in framing and editing their subject matter, are always inescapable, interpretative practices applied to digital recordings of public space today suggest there may be value in considering incidental “background” mobilities in historical documentary film and incidentally explains how a critical sociologist comes to be developing historical research tools.

Thinking about film as method

Considering transport practices and technologies in a broader context of mobilities studies has opened a wide range of considerations both of subject and method. These expanded interests are reflected in the changes to content and approach in publications such as the long-established *Journal of Transport History* and newer journals such as *Transfers: interdisciplinary journal of transport studies*. These stand alongside the focus on transport in *Mobilities* and *Applied Mobilities*. While much of this work remains firmly focused on the present, and historical work dedicated to conventional explorations of written archive sources, increasing use is made of cross-disciplinary approaches. These blur boundaries between historical investigations and sociological and anthropological research, further drawing on methods pioneered in literature and arts studies, as well as using these practices as sources.¹ Important strands in this multidisciplinary armoury of research techniques and practices are those concerned on the one hand, with visual research methods and on the other, with the concurrent possibilities offered by digital technologies.

¹ See for example Mom, Gijs (2014) *Atlantic Automobility: Emergence and Persistence of the Car, 1895-1940* Oxford: Berghahn

As Marion and Crowder succinctly point out, the social sciences have a long tradition of using cameras in research.² Indeed, both sociological and anthropological fields of study and documentary photography are born out of parallel concerns in nineteenth century modernity to record and understand the world. Early debates on subjectivism versus objectivism in the visual image continue to be central to any analysis of visual material.³ The unresolved tensions between these poles requires us, as researchers, to acknowledge the degree to which all our methods are reliant upon often under-examined epistemological foundations and assumptions concerning the constitution of truth, verity, facticity and meaning. The contested place of visual imagery and its potential for manipulation (in both production and reception) highlights the importance of critical analysis of sources, not just for provenance, but for how we derive knowledge from them.

While ethnographic and anthropological use of photographic material, both still and moving image, is well established, a more strictly sociological dimension is a more recent innovation.⁴ Part of the reason for this is critical sociology's positive engagement with social constructionism.⁵ Constructionist scepticism of (naïve) realism highlights the ways in which meaning cannot and should not be taken for granted in any form of source data, whether visual, written or recorded by other means. Every method of generating data is a form of intervention and thus needs to be considered critically.⁶ In historical terms, one needs especially to bring in to play the means by which the artefact, whether film or not, was not just brought into being, but also the implications of its preservation.

The framing and selection of image by the photographer or film-maker is a deliberate and constructed act. Compositional elements, visual clues, even focus and depth of field all are tools to create images not simply to record an objective reality but to form a particular way of seeing that image.⁷ Viewers engaged with the material are persuaded to read it in particular ways through presentational schemes. An early and important example of this kind of visual sociology was highlighted in Beatrix Campbell's 1984 study, *Wigan Pier Revisited*, in which she not only undertook an investigation into conditions of working class life in the north of England, but also juxtaposed it with the way in which well-known works provided particularly enduring images of social reality, to the exclusion of the multifaceted and more complex readings of social life.⁸ As well as highlighting Orwell's relative blindness to the gendering of social class inequalities, she also shows how Bert Hardy's image of a flat capped man leaning on a street corner, head bowed and looked on by two children, published in *Picture Post* had subsequently become "part of the iconography of unemployment in the Thirties". Such was its ubiquity at the time of her writing that it a parodic image was reutilised in 1983 as an advertisement for high fashion. Setting the two photographs side

² Marion, Jonathon S. and Crowder, Jerome W. (2013) *Visual Research: A concise introduction to thinking visually* London: Bloomsbury

³ Rose, Gillian (2001) *Visual methodologies* London: Sage; Mitchell, Claudia (2011) *Doing Visual Research* London: Sage

⁴ Harper, Douglas (2012) *Visual Sociology* London: Routledge

⁵ Berger, Peter and Luckmann, Thomas (1966) *The social construction of reality* Harmondsworth: Penguin; Burr, Vivienne (2003) *Social Constructionism* [second edition] London: Routledge

⁶ Bonham, J and Bacchi, C., 2103. Cycling subjectivities in on-going-formation: interviews as political interventions. *Paper presented to Foucault and Mobilities symposium, University of Lucerne, Switzerland, January 6-7.*

⁷ Berger, John (1972) *Ways of Seeing* Harmondsworth: Penguin; Berger, John (2013) *Understanding a Photograph* Harmondsworth: Penguin

⁸ Campbell, Beatrix (1984) *Wigan Pier Revisited: poverty and politics in the 80s* London: Virago. Following quotations from unpaginated photo section. Original image of "A street corner in Wigan" by Bert Hardy, first published in *Picture Post* 11/11/1939, juxtaposed with 1983 photograph by Gloria Chalmers.

by side allowed her to question how visual representations powerfully shape our historico-social imaginations asking “which is fact, which is fantasy?”

When it comes to moving images the problems are just as intensive. As Sian Barber notes, “film is a crafted artefact”.⁹ Documentary film is equally, if not more so, in that its very intention is to persuade the viewer into a particularly determinate reading. The crafting of documentary film engages all the processes of still photography and multiplies them with shot selection, editing, juxtaposition and transition. Further, film, as a medium “generated for the purposes of being seen” is further mediated at each stage of production, distribution and consumption.¹⁰ The power and ubiquity of the visual today and its legacy in propaganda through the twentieth century lands a credibility to any reluctance to try and use film as a resource for historical enquiry (except in and of itself as an historical artefact). Film studies as a wider discipline has opened up our understanding of the medium and our capacity to read the moving image, but as viewers we are nevertheless constrained only to see what the filmmaker wants us to see. Pointing out that film is a flawed source is only of limited value, however. All sources are flawed. What any source demands of the academic researcher is rigour in method and analysis and openness of process in order that the limitations of those methods be fully understood. We need to consistently ask how the present of the film is being represented, by whom, for whom and with what purpose.

Digital videography and mobilities studies

The rapid expansion of digital photography and the capacities for online sharing in the twenty-first century, have dramatically changed the location of the visual in our academic research methods. The possibilities offered by digital recording of mobile practices allow different forms of investigation of those practices.¹¹ The portability and disposability of digital video and its capacity for linkage with other information sources, including social media, opens up profound new spaces for academic investigation. Notwithstanding important debates about the deployment and utility of novel methods on mobilities research and whether they provide a privileged understanding or are simply another tool through which to see and understand, the use of digital recording methods has vastly increased awareness of the importance and possibilities of visual researches.¹²

My own specialist subfield of research within mobilities studies centres on vélomobilities: the systematic practices concerned with cycling.¹³ In common with other researchers, my work has used digital video recording to investigate mobile practices of cycling.¹⁴ Investigating people’s mobile experiences when actually on the move, traditional ethnographic approaches have expanded to

⁹ Barber, Sian (2013) *Using film as a source* Manchester, University Press, p. 4. Barber’s work is an excellent introduction to those considering practical use of film as a research resource.

¹⁰ Barber, *Using Film* p.13

¹¹ Pink, Sarah (2007) Walking with video, *Visual Studies*, 22:3, 240-252; Büscher, Monika; John Urry, Katian Witchger (eds) (2010) *Mobile Methods* London: Routledge; Fincham, Ben; Mark McGuinness & Lesley Murray (2010) *Mobile Methodologies* London: Palgrave Macmillan; Freudendal-Pedersen, Malene; Katrine Hartmann-Petersen, Emmy Laura Perez Fjalland (eds.) (2018) *Experiencing Networked Urban Mobilities: Practices, Flows, Methods* Abingdon: Routledge

¹² Merriman, Peter. (2014) ‘Rethinking mobile methods’, *Mobilities*, 9(2), pp.167-187

¹³ See Cox, Peter (2019) *Cycling: Toward a sociology of vélomobility*. Abingdon: Routledge

¹⁴ Brown, Katrina & Spinney, Justin (2010) Catching a glimpse: The value of video in evoking, understanding and representing the practice of cycling. In B. Fincham, M. McGuinness & L. Murray eds. *Mobile Methodologies*, pp. 130–151 Farnham: Ashgate; Spinney, Justin, (2011) A Chance to Catch a Breath: Using Mobile Video Ethnography in Cycling Research, *Mobilities*, 6:2, 161-182

engage strongly with the kinaesthetic dimensions of mobility.¹⁵ Within studies on cycling as a mobile practice, therefore, making and using visual resources as part of the investigative process has become a notable feature. My initial interest in understanding how design affects mobility practices and possibilities expanded into consideration of how the spatial is part of a triad of elements that make up mobile subjectivity. The traveller is not just a person utilising a machine as a mode of transport but the traveller can be deemed as co-constituted by the person and the mode of travel. Furthermore the third, spatial, element involved in co-constituting the travelling subject is the space for travel, both as provided by the vehicular mode, and by the infrastructures associated with it, in the landscape through which it moves. For example, the rail passenger as traveller is shaped by the infrastructure, not just the machinery of the train and carriage, but through the stations: what are the experiences that a particular station engenders: is it cold or warm, welcoming or hostile, beautiful or ugly, showing care and attention to detail or neglected. Understanding the travelling subject requires research sensitivity therefore to the experiential dimensions of travel. To do this required familiarisation with a broader literature on spaces, cultures senses and attention to the politics of these spaces, as well as finding appropriate research methods through which to investigate the lived experience rather than just its written reflection.¹⁶ Exploring these possibilities resulted in a research project to apply these methods to the cycle traveller. Before considering how I came to address historical documentaries as a source for understanding prior mobility practices, some explanation of my research project is necessary.

Designing research and identifying methods

My underlying research question at the outset of research project was “how do people ride, when bicycling is a mundane phenomenon?”. In order to do this I was located in a city (Munich) where every day cycling as a utilitarian mode of transport is a relatively mundane phenomenon. This is not to make any claims about the conditions or the desirability of the current cycling practices, infrastructures or transport regimes in the city, but just as observable fact according to the modal trip distribution.¹⁷ To investigate and to try and make sense of how people move around, it is first necessary to observe. To this end, the research process began by exploring quotidian journeys to work, using a handlebar mounted video camera. Because the original subject of my own study was mundane behaviour in public spaces, it was considered that filming journeys made, for the purposes of research only, and within the confines of the research context, would be justified as a legitimate

¹⁵ Spinney, Justin (2007) Cycling the city: non-place and the sensory construction of meaning in a mobile practice. In: Horton, D., Rosen, P., and Cox, P. (eds) *Cycling & Society*. Aldershot, UK: Ashgate, pp. 25–46; Pink, S., 2011. Sensory digital photography: re-thinking ‘moving’ and the image, *Visual Studies*, 26:1, 4-13; Jungnickel, Kat and Aldred, Rachel (2013) Sensory Strategies: How cyclists mediate their exposure to the urban environment. *Mobilities*, 9(2): 238-255; Jones, Tim (2018) The velomobilities turn, in Freudendal-Pedersen; Hartmann-Petersen and Fjalland (eds.) *Experiencing Networked Urban Mobilities: Practices, Flows, Methods* Abingdon: Routledge pp. 139-143

¹⁶ Vannini, P., ed. (2009). *The Cultures of Alternative Mobilities. Routes less travelled*. Farnham UK: Ashgate; Cresswell, T. and Merriman, P., (2011) *Geographies of Mobilities: Practices, Spaces, Subjects*. Farnham UK: Ashgate; Vannini, Philip, Dennis Wakul, Simon Gottchalk (2014) *The Senses in Self, Society and Culture* Abingdon: routledge; Merriman, Peter (2012) *Mobility, Space, Culture* Abingdon: Routledge; Pink, S., 2009. *Doing Sensory Ethnography*. London: Sage; Pink, S., Hubbard, P., O'Neill, M., and Radley, A., (2010) Walking across disciplines: from ethnography to arts practice, *Visual Studies*, 25:1, 1-7, Pink, Sarah (2011) Sensory digital photography: re-thinking ‘moving’ and the image, *Visual Studies*, 26:1, 4-13

¹⁷ The six months project was funded by Leverhulme Trust International Academic Fellowship (IAF-2014–2016) and entitled ‘Developing Cross-Disciplinary Research into Bicycling and the Environment’. It was undertaken in 2014/15 at the Rachel Carson Center for Society and Environment (RCC) an interdisciplinary research centre focusing on environmental history

means to investigate these practices. There are proper ethical concerns about filming in public environments as a tool for research. Careful consideration of existing guidance on both public space research and digital research published by the British Sociological Association (Britsoc.co.uk, as my professional oversight body) and given that the film was not to be shared in any public forum suggested that the film making process would not breach any trustor expectations of confidentiality.

For data recording on the move, the integrated capacity of proprietary Garmin cycling devices was used. A (VIRB) digital camera with GPS function designed for sports use was mounted on the handlebars to provide a simple wide angle point of view recording and synchronised with a dedicated bicycle GPS unit (Garmin 1000).¹⁸ Similar in appearance to a smartphone, this unit records speed, elevation, temperature and a host of other spatial and environmental details and unites these with biometric data in the form of heart rate information from a chest monitor and from power metering pedals (Vector) both wirelessly connected. From this combination a single data source is produced in the form of a unified digital output which can be recalled as a video image overlaid with selected data readings. Since the camera also records sound, field notes in conventional ethnographic fashion could be narrated along the way. Repeated recordings were made of daily journeying, as well as one-off trips exploring the city and its surrounding areas. These were then replayed and analysed to produce a series of codings to help understand the ways in which environments both physical and social affect how people travel by bike.

Visual and sensory ethnographies: developing coding

Analysing the resulting films was a time-consuming (not to say deeply tedious) process. As with any coding exercise, I was looking for patterns and for clues. Firstly, I was looking for the obvious fixed data, numbers and relative density of travellers, the use and allocation of road space (and of dedicated infrastructures where appropriate). Forms and types of interaction between road users were also important, both when sharing the same mode of locomotion and when there were interactions between different modes.

Secondly, there were more subjective issues around the quality of the environment. Some, like the quality of surface and its impact on travel were easily identifiable. Others, like the ways in which certain types of road surface, space or interaction made one feel more, or less, confident and comfortable, initially relied more strongly on correlation between the visual and verbal note taking and through repeated travel in those same spaces. Repetition of travel is vital to understand the effects of familiarity, but through the repeated journeying, more subtle visual clues could be discerned, especially in the way in which other cyclists move through the spaces.

The third level of analysis of the augmented video concerned the interactions of cyclists: with the infrastructure, with each other, and with other modes of travel: buses, cars, trams, powered two wheelers and pedestrians. Visual observation of other's actions could be combined with my own body-monitoring and audio notes. What were the physical cues and behaviours that indicated apprehension or relaxation? Which patterns of action either of self or of external actors (especially other vehicles) raised the heart rate in fear and which patterns of action were associated with observations of pleasure. By cross-referencing the different data sources correlations could be made between specifically visual actions and the experiential and perceptual states associated with them. Much of this information is simply what we take for granted in everyday navigation of our lives. What the analysis provided was a replicable dataset to prove this intuitive knowledge and to provide

¹⁸ These commercially available units, designed for sports use were selected because they are relatively discrete in use, and allow the overlay of data in the editing process.

quantifiable data on the degree to which certain specific scenarios were conducive to cycling or proven hostile to it.

Watching the same journey, repeated daily, sensitized me as a viewer to subtle details in the way that other cyclists moved around me. Differences from one day's film to another, cross-tabulated with the biometric information from the film and the oral notes allowed me to "read" the actions of other cyclists in ways that I had not previously been conscious of. As well as developing a considerable sense of how my own actions were developed and altered by the physical and social spaces of the city, I was able to observe how these forms of agency affected others.

Simultaneously with the digital augmented video recording process, I was also engaged in more conventional archival research. Studying the material artefacts of cycling and the literatures associated with them, allowed an insight into historical representations of cycling.¹⁹ Advertising material, manufacturers' catalogues and travellers' narratives combined to build a sense of how cycling practices were seen and understood, and how the cyclist as traveller was perceived politically and socially in Germany in the first half of the twentieth century.²⁰ Seeking broader understanding of the background contexts to some of these materials, I began to explore recently restored video news reel and documentary sources. Whilst viewing these it occurred to me that the same visual interpretative language could be applied to documentary film, however stylised or designed for propaganda, where the footage included naturally occurring background information regardless of the subject.

Historical documentary as source

A useful way to begin thinking about the place and purpose of historical (documentary) film sources in the research process is to treat them as naturally occurring data. Documentaries, whether film or television, as Kiyamba, Lester and O'Reilly point out, allow us an insight into "social, cultural and historic trends in how particular ... issues are portrayed".²¹ Non studio based film frequently, and of necessity, includes background information not pertaining to the theme intended by the film-maker. Unless the filming is undertaken in closed conditions, all photographic sources, still and moving, record background information that can potentially be treated as naturally occurring data. Recognising the limitations of interpretation mentioned above, location footage and the actions of those in the streets provide a data source that can be interpreted and read with the same attention as the video ethnographic material recorded in my own research. Applying the three levels of analysis to a purely visual historical source must necessarily be treated with a high degree of caution. Nevertheless, as a means to supplement or be supplemented by other historical sources, it appeared to be a fruitful line of investigation for understanding cyclists use of and experience of the city.

The interest in these documentary films is not in the film's subject, nor the film itself as an object of study, but instead as a naive source. That is, as a recorded artefact containing details necessarily observed in the filming, but not the subject or focus of the camera. Transport researchers may more

¹⁹ Thanks here to the staff at the Deutsches Museum for guiding me through the intricacies of the archives.

²⁰ Special mention needs to be made of Katherine Ewert's important work on cycling in pre-war Germany: Ebert, A.K. (2010). *Radelde Nationen: Die Geschichte des Fahrrads in Deutschland und den Niederlanden bis 1940*. Frankfurt, Germany: Campus Verlag

²¹ Kiyamba, Nikki, Lester, J.N. and O'Reilly, M. (2019) *Using naturally occurring data in qualitative Health Research: A practical guide* Springer p. 166

obviously be drawn to the extensive archives of, for example, *British Transport Films*.²² These and other films provide ample representation of the public faces of transport themes and are of interest for what they tell us about the representation of transport at this time. The focus of my analysis, however, is on films made not concerning transport themes as their subject. Instead, this study began to look at documentaries of other forms of public life to consider how the background action in the streets behind the subject being filmed might be read in light of the coding developed in my own augmented video work

In the process of restoration and reproduction, archives such as Munich's Filmmuseum, package and present not only distributed prints of films but also where possible, unedited or rough cut materials as additional extras to enable film scholars to study the processes by which individual filmmakers work. One such example is the Filmmuseum's 2006 DVD release of Ella Bergmann-Michel's work between 1931 and 1933.²³ This comprises all extant footage, including the three documentary films completed by the artist together with her unfinished study of the last free German elections in 1933. To provide an example of the process of using historical documentary as a source for investigation of mobility practices, we can examine her work in depth.

Analysing the documentary film of Ella Bergmann-Michel

Ella Bergmann-Michel was part of a wider international movement of artists who saw their work as contributing to a greater project of social change. Drawn first to photography and then to film she was a pioneer of avant-garde modernism, committed to exploring and promoting new social relations of "liberated living" especially affecting the re-organisation of domestic sphere (Luke 2017).²⁴ The discussion that follows concerns her third (and first independently made and financed) film *Fleigende Händler in Frankfurt Am Main (Travelling Hawkers in Frankfurt Am Main)* which exists in both a 21 minute work print and a 46 minute (silent) rough cut. The work print uses editing techniques that echo Joris Iven's work of the same period, depicting the rapid mobilities of everyday life.²⁵ Of greater value for the analytical methods described here is the longer footage in the rough cut.

Ella Bergmann-Michel herself recalled the shooting of the film as enabled by the handheld 35mm camera, with which she could film unseen.²⁶ Hence, this particular documentary is unusual in that it was deliberately made as a covert recording on the streets of the city, in amongst the everyday actions with which she was concerned. The rough cut, while edited to indicate her favoured juxtaposition of scenes and to establish a particular narrative contains a number of longer views of streets. Camera shots last up to 20 seconds and several, while separated in the cut, are clearly filmed in almost continuous sequence, allowing the viewer concerned with background action much

²² <http://www.britishtransportfilms.co.uk/>. Many, but not all, are distributed by the BFI. The full BTF archives also include, for example, training films that provide different levels of insight for transport history research.

²³ Bergmann-Michel, Ella (2006) *Dokumentarische Filme 1931-1933. Edition Filmmuseum 09*, München Film & Kunst / Deutsches Filmmuseum Frankfurt am Main

²⁴ Luke, Megan R (2017) Our Life Together: Collective Homemaking in the Films of Ella Bergmann-Michel. *Oxford Art Journal* 40.1 2017 27-48

²⁵ Iven's early documentaries, especially *Études des mouvements à Paris*, use vivid intercutting and editorial techniques to give an impressionistic view of the frantic pace of street life. While powerfully persuasive, they are not particularly useful; as sources to understand the wider practices of Parisian mobility at the time. See Thomas Waugh (2016) *The works of Joris Ivens: the conscience of cinema* Amsterdam University Press.

²⁶ Bergmann-Michel, interview 20/01/1967, translation printed in accompanying DVD booklet. Original text, Sprengel Museum Hannover Inv. Nr. A 40..04-c-01

greater information than contained in a fully edited film. In addition to the specific details recorded and analysed in a raw digital point of view camera recording, the purposeful creation of a documentary entails its creator establishing the *mis-en-scène* of the piece. The framing and location selections are part of the narrative process inducing the viewer to see what the filmographer 'sees' not just visually but in the way that they want the viewer to interpret what they see. In this case the limitations of the camera technology and filming opportunities require relatively broad views and a common single lens focus lending a naturalistic feel to the film, as is clearly the intention of the author. As in her previous documentaries on housing and on soup kitchens, she wants the viewer to engage with and empathise with the subjects.

The first the background shots of streets we see, one is struck by the relative lack of traffic. Two static motor cars and one moving, together with two solitary moving cyclist. However. The greyness of the print means that there is little indication of the time of day this is shot. Traffic counts can be useful but alone in short shots such as the 5 second burst they can hardly be deemed meaningful. What is more interesting is the low speed differential of the traffic modes: pedestrians stride briskly across the road and the car only slowly edges alongside the cyclist in view. These are insignificant details for the series of opening shots shot which are focused on the flapping movement of awnings and newsstand displays in the wind. In later sequences, this same set of low speed differentials is also clearly visible: a lorry seen travelling through the streets (with nothing in front of it) moves at the speed of the cyclists around it.

Other important visible background details that enable us to think carefully about the mobility practices and experiences of the city are the qualities of road surfaces revealed in successive shots. Paving slabs in some street sections are incised with gridded patterns, presumably providing drainage and ensuring less slippery conditions underfoot than from smooth pavements. Road surfaces vary. Some are paved with small brick type cobbles with visible gaps. In these cases the road also has strongly cambered edges again presumably from concern with drainage. These shape how and where road traffic, motorised, pedestrian or cyclist moves. They also provide convenient parking for two wheeled handcarts, crossways to the traffic flow (and used as a see saw by children able to play in the streets with no trams or motor traffic, during a 20 second shot in which four cyclists pass). Similarly the height of the kerb from the road surface allows bicycles to be parked (unlocked) unsupported except by a pedal on the kerb. Other surfaces appear smooth and the demarcation between surface types at intersections shows a smooth (asphalted?) surface to the large of roads, while side streets remain with cobbles or block sets.

The handcarts hauled by the street hawkers share the road with motor traffic, trams and cyclists. In a 15 second shot of a handcart holding up the passage of a tram, one motor car passes and six cyclists are visible, along with the same number of pedestrians. While some of the shots of the hawkers are clearly staged, especially those that unfold the plot of their evasion from the police,²⁷ the action takes place against a background of unremarkable activity and thus of greatest interest for the analysis here). At a busy intersection of smoothly surfaced roads (though the pavement has gridded pavements) pedestrians, cyclists and motor traffic wend in and out of the spaces. Again, short, establishing shots enable only impressionistic glimpses, and are subject to the deliberate choices of the filmmaker to establish the tone and theme of the material. From a transport perspective, however, what is notable is the diversity of modes: a range of hand drawn or pushed carts of various sizes for different loads: flat bed and box sided two and four wheeled, all the way down to different shaped perambulators, some clearly handmade, plus animal traction carts, motor cycles and sidecars

and even motor tricycles alongside trucks, tractors pulling multiple trailers combine to create an impression of vehicles each designed and selected for specific purposes. Bergmann-Michel is interested in the handcarts inasmuch as they provide the mobility for the hawkers and traders whose story she is telling. A sustained sequence at the exit to a print works show traders departing with bundles of newspapers, some stacked chin high on the front of a (ridden) bicycle, others carried in shoulder bags or backpacks, tucked underarm or on rear racks or simply balanced on handlebars. Pedestrians carry stacks of print underarm or in bags, and in handcarts and perambulators. Traffic types and moving practices are the obvious products of first level analysis.

Connecting to my own video work on cycling, certain themes become important as we see incidental cycle traffic. First, the wide range of speed variations, from the very rapid to little more than walking pace. Luggage is carried under arm, in back packs or on front carriers. In early morning shots (judged by the length of shadow) the pace of movement is generally higher than later in the day as shadows shorten. These are patterns that might be expected and are visible in Munich today, but it is valuable to see the same rhythmic patterns of city life confirmed in the 1930s.²⁸ Cycle transport is further aided by the occasional specially designed carrier bike, in one instance with very large wicker baskets front and rear. A series of 20 second long shots at a junction (in morning light) allow some comparative number counts. In the first, ten bicycles to one car and one tram pass. In the second, two cars, a truck, two (goods carrying) motor tricycles and six cyclists.²⁹ What is more noticeable, however, is the manner in which cyclists travel. No hint of hesitation is shown, the cyclists proceed at their own chosen pace, weaving in and out of pedestrians and motor vehicles as necessary. Carrying loads underarm or balanced on handlebars up to the chin in a manner that necessarily limits control over the bike is clearly not seen as a problem from the frequency with which such practices are visible. The environments of travel are clearly conducive to a confidence and an ease of cyclists movement. This is also reflected in the interactions of riders, side by side, clearly deep in conversation.

Pedestrians likewise negotiate the road space with ease, not with hesitation. The confidence that cyclists show is confirmed in one particular passing shot while the filmmaker is focused on the trader, a figure rides past in the background and even with the lack of focus on a momentary passing figure, a window cleaner with ladders over his shoulder and bucket slung on his arm can be made out³⁰. To ride in the road space thus encumbered requires a considerable degree of trust in the other road users at this same crossroads intersection where the previous sequences were taken. Though the cyclists wobble while starting off, once moving, they proceed smoothly along the roads.

Combining these series of sequences, all shot from the same point and at the same time of day, enables the background viewer to watch traffic (vehicular and pedestrian) interact at a crossroads, with no visible road signage or marking and to glimpse how uninterrupted flows depend on mutual recognition. In my own filming, interactions of this kind only take place in the context of modally identical traffic, pedestrian, cycle or (more rarely) motor. Where modes are mixed in today's transport systems there are clear assumptions of priority made by all actors in the system, usually based on the perceived fear of relative damage potentially involved in any collision. In Bergmann-

²⁸ Tim Edensor, (2011) *Commuter: Mobility, Rhythm and Commuting*, in Cresswell, Tim and Merriman, Peter, *Geographies of Mobilities: Practices, Spaces, Subjects* Farnham: Ashgate pp.189-203 develops Lefebvre's rhythm analysis to provide a valuable discussion of these changing patterns of movement through the day

²⁹ Street scene observations on main thoroughfares from her unfinished footage of the 1933 elections reveals a similar dominance of pedestrian traffic, with numerous bicycles and the very occasional motor vehicle. This balance is to be expected in what was at the time, one of the least motorised of industrial nations.

³⁰ The shot is at 24:28

Michel's film the equality of mobile subjects is noticeable. With relatively little traffic, the whole of the available road space is also used, cyclists do not necessarily ride close to the gutter, enabling better anticipation of any interactions necessary.

Conclusions

Limited glimpses into the streets of a city provided by documentary film such as that described here, can only provide a snapshot into the travel and transport worlds of the past. However, by focusing on the background, and treating film background as naturally occurring data, new insights may be gained to enrich the understanding of twentieth century mobilities outside of our own experiences or lacking in data rich sources. More importantly, comparing historical footage with analytical techniques used to read today's digital sources allows us insight into the quality of interactions of road users. Thus a glimpse is possible into the experiential world of mobile subjects. This single case study has been conducted as an experiment to demonstrate how these techniques may be applied to provide a richer understanding of travel than can be gained simply from numerical or narrative data alone. It cannot supplant our primary sources, but it can help to illuminate and perhaps to humanise our thinking about travel and how it creates its own subjectivities.