



THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

Towards a Politics of Routes and Routing

Citation for published version:

Cresswell, T 2024, 'Towards a Politics of Routes and Routing', *Mobility Humanities*, vol. 3, no. 1, pp. 18-33.
<https://doi.org/10.23090/MH.2023.07.2.2.001>

Digital Object Identifier (DOI):

[10.23090/MH.2023.07.2.2.001](https://doi.org/10.23090/MH.2023.07.2.2.001)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Publisher's PDF, also known as Version of record

Published In:

Mobility Humanities

Publisher Rights Statement:

© 2024. The author(s).

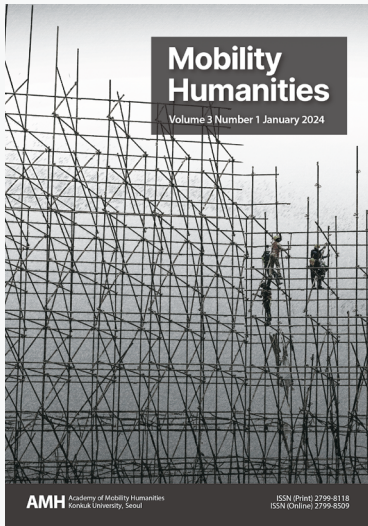
General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.





ISSN(Print) 2799-8118
ISSN(Online) 2799-8509

Mobility Humanities

Volume 3 Number 1
January 2024

Academy of Mobility Humanities
Konkuk University, Seoul

SPECIAL ISSUE

Towards a Politics of Routes and Routing

Tim Cresswell



- **Published online:** 31 Jan. 2024
- **To cite this article:** Cresswell, Tim. "Towards a Politics of Routes and Routing." *Mobility Humanities*, Jan. 2024, pp. 18-32, DOI: 10.23090/MH.2024.01.3.1.002
- **To link to this article:** <https://doi.org/10.23090/MH.2024.01.3.1.002>

Submit your article to this journal

Full Terms & Conditions of access and use can be found at journal-mobilityhumanities.com

SPECIAL ISSUE**Towards a Politics of Routes and Routing****Tim Cresswell****Abstract**

This paper explores the concepts of routes and routing in the context of human mobility, shedding light on how routes shape movements and contribute to the formation and transformation of kinetic hierarchies. While significant attention has been given to roads, paths, railways, canals and other forms of route in mobility studies, these have not cohered into critical accounts of routes and routing. People and things do not move at random across an isotropic plain. This is the first lesson of mobility—people and things follow, and create, routes. This paper argues for a theorisation of routes and routing through an examination of approaches to routes in art and theory, exploring how routes create infrastructures of power as well as the use of self-made routes—desire lines—to trace out possible alternatives to the infrastructural present. The analysis of routes and routing forms a key part of a wider politics of mobility. The paper argues that while borders have received substantial theoretical attention, routes and routing have been relatively undertheorised in mobility studies and elsewhere. It asks what would happen if we theorised routes and routing in a similar way to the theorisation of borders and bordering?

Keywords

Routes, Infrastructure, Art, Theory, Power, Desire Lines, Detours

CONTACT **Tim Cresswell** tim.cresswell@ed.ac.uk

Ogilvie Professor of Geography, School of GeoSciences, University of Edinburgh, Edinburgh, UK



Articles in this journal are licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License (CC BY-NC-ND 4.0). © 2024. The author(s).

Introduction

Mobility does not happen on an isotropic plain. People do not flow like a spilt liquid on an undifferentiated surface. The mobilities of the kinetic elite and kinetic underclass, the citizens and vagabonds alike, are routed, and the routes and channels through which they pass play an important role in differentiating one from another. There are citizen routes and vagabond routes symbolised perhaps most grotesquely and literally by the gradual erosion of “safe routes” to citizenship for asylum seekers and the precarious routes they have to take instead—routes across the Mediterranean, the English Channel or the Rio Grande, for instance. The focus of this paper is on the way mobilities are routed and how these processes of routing are political.

If we look at a standard atlas, we see both dots and lines. The dots denote locations. The lines are either borders or routes. The borders separate spaces while the routes, at first glance at least, connect them. Routes form an elemental kind of infrastructure. Some of the root words for wilderness and wastelands suggest, not so much the lack of settlements, but the lack of routes or paths. The Latin word “*avium*” refers to a place without paths while the Old English *wēglæst* refers to a “way-less place.” The wilderness confronts the traveller with a lack of routes. As such, it is unintelligible space. The first thing that is needed to conquer the wild, to colonise nature, is a way, a path, a route. Before space can be settled, and before land can be cultivated, a way through must be hacked. This suggests that the way a territory is claimed is not by marking its boundaries at the outset—but by creating a network of routes that help the space to make sense. Routes and routing are foundational to the power-laden process of human dwelling. The significance of routes and routing to both dwelling and power are also reflected in the etymology of the word “route.” In old French “*rute*” meant road or way or path, which was itself based on the Latin “*rupta*,” the feminine past participle of “*rumpere*”—“to break.” *Rupta* was used to describe a road opened by force—by breaking through a forest or wilderness for instance. It is linked to the word “rupture.” The violence of routes is a theme I will return to.

The first things we think of when we hear the word infrastructure are the elements of the landscape that facilitate movement—roads, tracks, pipes, cables. Despite the centrality of routes as infrastructure to the constitution of networks and their role in bringing places into relation with other places, routes and routing have not been inadequately theorised. Borders (and boundaries), on the other hand, have received a significant amount of theoretical and empirical attention in recent decades. There is a healthy field of border studies exploring how borders and bordering occur both at obvious borders (denoted by the lines on maps) and throughout everyday life, showing how borders both divide and bring hybrid forms of existence into being at various border spaces (Anzaldúa; Rumford; Silvey). “[B]orders,” Chris Rumford notes, “are central to the social theory agenda” because “to theorise mobilities and

networks is at the same time to theorise borders" (155). The advent of Critical Border Studies as an interdisciplinary programme of study mirrors the rise of the "new mobilities paradigm" and specifically helps mobilities scholars understand how mobilities and immobilities are regulated, surveilled and policed. Given the welcome attention that has been given to borders and acts of bordering, my argument here is that we might similarly benefit from a critical analysis of the other lines on the maps—the lines of routes.

This is not to say that routes and the theorisation of routes and routing have been entirely absent from mobility studies. Urry, in contemplating the fundamental nature of walking to understanding mobilities in general, reflects on how walking both creates and is directed by paths. He considers walking, including the famous strolls of the Parisian *flâneur*, as an achievement of an assemblage of bodies and technologies, including the technologies of paths and sidewalks such as the wide Parisian boulevards. While there is no chapter on "routes" in *The Routledge Handbook of Mobilities*, and neither do routes or routing appear in the index, there are chapters on roads, railways, vectors, and pipes and cables. In his chapter on roads, for instance, Merriman notes how roads had received relatively scant attention when compared to mobile subjects (drivers, passengers) and their vehicles (cars, trucks, motorbikes) ("Roads"). His chapter works to correct this by considering how roads have appeared at various moments in geography, including as indicators of circulation in regional studies, as "optimal paths" in spatial science, and as potential threats to landscape and place in accounts of placelessness and non-place. In Merriman's own work he has explored the M1 motorway in England as both a functional space and a cultural text (*Driving Spaces*). He argues that motorways: "are not simply physical and strikingly linear infrastructures in the landscape. Rather, they are continually practiced, placed and ordered through the incessant enfolding of different atmospheres, subjects, materials, rhythms, texts and practices into a non-linear, topological, and 'scrumpled geography'" ("Roads" 202). Elsewhere, Merriman shows how guides produced for motorists directed them to places to stay and eat, resulting in a topological scrumpling of the landscape whereby:

... the geographies of the surrounding landscape, particularly the geographies of local hotels, restaurants and tourist attractions, become gathered around the motorway, enfolded into its spaces, incorporated into its relational and topological geographies, located in relation to its junctions. The motorway becomes a way of organizing or relating features of the landscape ... ("Enfolding and Gathering" 215)

Merriman's essay appears in the collection, *Routes, Roads and Landscapes*, where various authors consider the cultural relationships between roads, paths and other routes and the landscapes around them. "Paths, roads, canals and railway lines", the editors write, "constitute poignant linkages between nature and culture, representing as well as ordering our relation to the natural world" (Hvattum et al. 2). Despite smartly developing our understanding of the need to understand routes and landscapes in relation to each other, the role of routes and routing in the production, maintenance, and transformation of power is left under-

conceptualised.

Outside of work in the new mobilities paradigm, there are other key works that have considered the social, cultural, and political significance of routes and routing. Perhaps the most obvious place to look is James Clifford's book *Routes: Travel and Translation in the Late Twentieth Century*. This book was foundational in challenging the pervasive organic association between identity and fixity—belonging in place. Despite the title, however, the book is not really about routes. Routes, for the most part, act as a stand-in for travel, mobility, and connectivity. The focus is on points of contact such as museums and airport lounges. I get the sense that the only reason the book is called “Routes” is because it is a homophone for the word roots—which appears to have an opposite meaning. Indeed, the fact that routes and roots are homophones and opposites has provided the basis for the emerging poetics of the new mobilities paradigm. A more helpful text is Tim Ingold's book *Lines: A Brief History* which, as the title suggests, is not focused on routes as such, but lines in general, from the lines drawn by a draftsman to the lines of a road, canal, or railway. In an evocative account of “trails and routes,” Ingold compares the paths made through the landscape by Indigenous peoples (which he terms “wayfaring”) with routes designed to link points in two-dimensional space (which he terms “transport”). While the wayfarers' paths are somewhat spontaneous and signify kinds of autonomy, the destination-oriented transport paths dissolve the bond between perception and locomotion. In some moments in history, Ingold writes: “imperial powers have sought to occupy the inhabited world, throwing a network of connections across what appears, in their eyes, to be not a tissue of trails but a blank surface” (81). Ingold's account is suggestive of the role of routes and routing in the politics of mobility, and I draw on his work, as well as the work of Merriman and others, in what follows.

My argument is not that scholars in mobilities studies and elsewhere have ignored routes—the brief review above suggests otherwise—but that the analysis of routes and routing has not been developed into a broader critical field in the way border studies have. To do this, I argue, we need to consider the particular affordances of routes and routing in general, in addition to the particular characteristics of paths, roads, railway lines and canals.

Routes in Spatial Science

One place where routes were and are taken seriously is in spatial science. The ways routes were most often used by spatial scientists, however, were abstracted from worlds of meaning and power that should be central to a critical humanities approach to routes and routing. From the 1950s onwards, scholars attempted to account for how networks of routes developed in relation to the nodes (places) that they connected. The exploration and explanation of routes was seen as a necessary step to producing a more active and process-oriented account of spatial patterns in general. To give one example, in a book designed for students undertaking advanced courses in geography, Roger Robinson outlines how

the branching of paths used by Hausa agriculturalists in northern Nigeria reflect how the geomorphologist, R.E. Horton (and, later, Arthur Strahler), modelled branching stream networks (Horton; Strahler). Routes, here, follow tree-like patterns with major trunk routes and splitting branches. “[N]etworks and flows with branching characteristics are a common element of almost all human movement patterns,” Robinson writes, “Branching networks of roads, tracks and footpaths are clearly seen in areas where one node generates a strong pattern of movement, and elements of such patterns can be seen in a complex general road network” (23). Robinson builds on the branching networks of routes formed by agriculturalists on foot in Nigeria by considering long distance routes used for valuable commodities such as the Silk Roads that linked China to the “Near East.” In this case, Robinson argues, “the principle behind the choice of route was one of ‘least cost to user,’ the cost being considered in terms of time, effort and exposure to danger and hardships. These considerations tend to produce as direct a route as possible from one place to another” (27). As the infrastructure necessary for routes becomes more complicated, the principle of “least cost to user” is supplemented or replaced by principles of “least cost to builder” or even, more intangibly, “least cost to environment.” Robinson’s discussion is thus rooted in observations of the natural world and their similarities to human routes in “traditional societies” such as the Hausa of Nigeria. As societies become more advanced, or developed, the explanation moved away from the choices of individuals and small groups concerning how they move, towards the choices of those who build the infrastructure (roads, railways) which enable movement. In this way, routes and networks of movement become stand-ins for general notions of development.

Spatial scientists with an interest in movement and networks developed all kinds of models of ideal route/network development, often using the Global South as a kind of test case for their ideas. Such models enacted a redoubling of colonial extractivism—both mapping the routing by which resources were extracted from the colonies to the colonial heartland, and then academically extracting value by using colonial space to produce theories and models of transport network development. In 1963, Taaffe et al., for instance, produced an “idealised model of transport” development based on observations of transport network development in Nigeria and Ghana, both former British colonies.

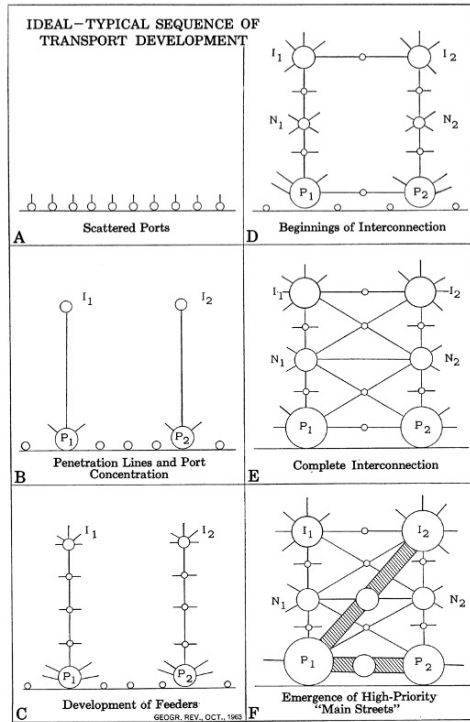


Fig. 1. Ideal-typical Sequence of Transport Development (Taaffe et al., 504)

They describe how networks start (A) with small, disconnected ports along the coast followed by (B) “major lines of penetration” inland resulting in the growth of markets at the ports and in their hinterlands. In the third stage (C), “feeder” routes develop connecting to the ports via the “lines of penetration” expanding the hinterlands of some ports at the expense of others. This is followed by (D) the development of larger inland nodes with their own feeder networks and (E) “lateral interconnection” occurs as feeder routes link up with each other. Finally (F) “high priority” main streets emerge between ports or between ports and inland nodes.

Taaffe et al. describe the first stage of scattered ports in Nigeria in the following way:

These settlements, most of which existed or came into being between the end of the fifteenth century and the end of the nineteenth, were populated by indigenous people around a European trading station, or fort. Many of the people engaged in trade with the Europeans and served as middlemen for trade with the interior, a function jealously guarded for centuries against European encroachment. Penetration lines to the interior were weakly developed, but networks of circuitous bush trails connected the small centers to their restricted hinterlands. River mouths were important, particularly in the Niger delta, but with a few exceptions during the early periods of European encroachment the rivers did not develop as the main lines of

thrust when penetration began. (505-6)

The point of these observations was to make suggestions which might be generally applicable, at least in “underdeveloped” countries. The authors point out that their model is broadly analogous to Rostow’s “take-off” model of economic development, with the first stage of scattered ports representing Rostow’s “Traditional Society.” What is missing in the analysis is much sense of the very specific history of Nigeria and the fact that the scattered ports were frequently sites that were central to the trade in enslaved Africans. They overlook the fact that the development of the route networks they describe were a product of a colonial spatiality where raw materials (including enslaved Africans) were extracted from the interior via ports to the imperial metropole. A similar logic applied across the British Empire. A network of railways in India was a map of colonial power conceived by the East India Company Governor General Lord Hardinge, who argued that the planned railways would be “beneficial to the commerce, government and military control of the country” (qtd. in Tharoor 177). The subsequent network of routes in India was primarily designed to transport resources such as iron, coal and cotton to ports from where they could be extracted back to Britain. The network of routes, rather than being a spatial representation of a series of logical choices, is an image of colonial rule.

Work on routes in a quantitative and spatial scientific frame was wide ranging and included, for instance, William Garrison’s study of the development of highway networks, which combined historical analysis of routes over time with quantitative analysis of the role of highways in the diffusion of knowledge and trade using graph theory. Idealised forms of routes as parts of networks were arguably central to the whole enterprise of centring movement between locations (nodes) in locational models (Haggett). Spatial scientific approaches to routes, and the networks they are part of, did become considerably more sophisticated over time, using, for instance, graph theory and topology to analyse networks of points (cities) and edges (routes) (Ducruet). I draw on these uses of routes and routing in spatial science to ask what it might look like if critical and humanities-based approaches were added to a consideration of the roles of routes and routing in the worlds of meaning and power. Spatial science was ill equipped to take issues of meaning and power seriously, and many technocratic approaches to routes and infrastructure, including those informed by sophisticated forms of network analysis, still fail in this regard.

Perhaps a better place to look is in the long tradition of work on specific routes conducted within the humanities by anthropologists, historians, geographers, and others. These include, for instance, the detailed ethnography of expertise that links road building in Latin America with nation-building projects in the work of Penny Harvey and Hannah Knox, the careful historical reading of the construction of Britain’s M1 motorway and its surrounding landscapes by Merriman (*Driving Spaces*), and the spatial history of colonial routings in Australia by Paul Carter. Each of these, and many more besides, tell us a great deal about how routes are laden with meaning and power in particular contingent contexts

that contrast with the technocratic model building of early and recent spatial scientific approaches. What I am arguing for here, is a social theoretical account of routes and routing that is attentive to contingency but is not afraid to make general claims about the roles and affordances of routes and routing in the constitution of social and cultural worlds.

The Routes of Power

Focusing on the multitude of routes through and across the English Channel, and the ways they are constructed in reference to what lies below the sea, as well as on its surface, Kimberley Peters contends “that more attention must be paid to routing” (45). “Routes” she insists, “are as fundamental to globalisation as the material technologies of ships and their cargo” (45). She notes how explicit discussion of routes and routing are oddly absent from discussions of the wet ontologies of the seas. Using the terminology of Deleuze and Guattari, the sea is envisioned as a smooth space of logistics which ignores the striations that occur through the production and policing of routes. “Acknowledging routes,” Peters writes, “is essential to making sense of our global world of connection—contributing to and theoretically deepening debate beyond the visual and material; beyond the ship and its load” (49). Routes and routing are fundamental to our understanding of trade, commerce and far more. What happens if we take Peters’ provocations further—at sea, for sure, but also back on dry land? Routes and routing are every bit as fundamental to the ordering or the world as borders and bordering are. Connection is every bit as important as separation (and routes, like borders, do both).

There are two different kinds of routes as nouns. One kind of route is a designation for links between points that might be represented by lines on maps. We might say, for instance, that there is an Edinburgh to Naples route by air but there is not an Edinburgh to Seoul route. To get to Seoul I must be “routed” through London or elsewhere. The other is a specific material structure such as Route 66 or the trans-continental railroad. Either way, a route typically has a beginning and an end as well as a passage through space. It has a distance, a direction, and a shape. Route is also a verb. Routing can refer to the simple process of connecting two points. To route something is to direct something along a particular course or towards a particular point. The verb suggests an act of channelling—of slotting a person or thing into an established way—the correct way. It suggests a certain kind of power and authority.

Deleuze and Guattari describe how mobility is “channelled” into acceptable conduits. Producing order and predictability is not simply a matter of fixing in space (with borders for instance) but of producing correct mobilities through the designation of routes.

One of the fundamental tasks of the State is to striate the space over which it reigns, or to utilize smooth spaces as a means of communication in the service of striated space. . . . If it can help it, the State does not dissociate itself from a process of capture of flows of all kinds, populations, commodities, money or capital, etc. There is still a need for fixed paths in well-defined directions,

which restrict speed, regulate circulation, relativize movement, and measure in detail the relative movements of subjects and objects. (*Nomadology* 59-60)

The state striates space by assigning channels and conduits. Routes are thus mechanisms of power through their capacity to distribute mobilities. The State, Deleuze and Guattari write, seeks to “constrain movement to go from one place to another, and space itself to be striated and measured, which makes the fluid depend on the solid, and flows proceed by parallel, laminar layers” (*A Thousand Plateaus* 362).

More concretely, Stephen Graham and Simon Marvin have developed the notion of a “tunnelling effect,” originally suggested by the architect Paul Andreu, in the contemporary urban landscape. They show how the routing of infrastructural elements ranging from roads to high-speed computer links warps the time-space of cities. Valued areas of the metropolis are targeted so that they are drawn into “intense interaction with each other” while other areas are effectively disconnected from these routes (Graham and Marvin 201). Examples include the highways that pass through the landscape but only let you get off at major hubs. Or think of high-speed train lines that pass from airport to city centre while bypassing the inner city in between. These “tunnels” facilitate speed for some while ensuring the slowness of those who are bypassed. Routes provide connectivity that in turn transforms topographical space into topological and, indeed, dromological space. This is what routes do—they warp the friction of distance into new folds of space time, producing new maps of connectivity that reflect the interests of those doing the connecting (see also Merriman “Enfolding and Gathering”)

Routes are enabling infrastructures designed to facilitate travel along them. But routes do far more than this. Routes that take the form of fixed infrastructure—roads and railways, for instance, do not simply link spaces, they produce them. As Eric Swyngedouw has observed:

A railway, a motorway or communication line, for example, all liberate actions from place and reduce the friction associated with distance and other space-time barriers. However, such transportation and communication organization can only liberate activities from their embeddedness in space by producing new configurations, by harnessing the social process in a new geography of places and connecting flows. (306)

Routes, in other words, remake geographies. Most obviously the places that a route connects become relationally tied to each other in potentially productive ways. We know, for instance, that the material geographies of places along the new Elizabeth Line (formerly called Crossrail) in London are transformed by the access it provides to other places along the line—particularly the City of London. The line connecting Reading and Heathrow in the west to Shenfield and Abbey Wood in the east, cuts right through central London, connecting inner and outer suburbs to the financial heartland of the City of London. It was opened in May 2022. House prices have been transformed immediately. Fancy new train

stations along the route became hubs for spaces of speculative property development as it became possible for workers in the banking sector to get to work in shorter periods of time from distant suburbs such as Ealing. Routes don't simply connect places that already exist. Space and places are made through acts of routing.

Just as a route can play a role in the production of space so it can destroy already existing places—routes as rupture. Routes do this through the brute materiality of their presence—the specific concrete forms they take. Sometimes, routes and borders are the same thing, especially when large multi-lane highways are built through poorer areas of cities (Mahajan; Bullard, et al.; Roberto and Korver-Glenn). A case in point is the Dan Ryan Expressway on the south side of Chicago which was opened in 1961. It was a product of the National Interstate and Defense Highway Act of 1956. The Dan Ryan Expressway was just one part of 41,000 miles of interstate highway authorised for construction across the nation to ensure the ease of interstate commerce, to increase the mobility opportunities of American citizens, and to ensure logistical smoothness in the case of attack by a foreign power. In addition to producing a new diagram of American connectedness, ensuring that future development in the United States would be largely automobile based, they cut through neighbourhoods, destroyed housing, and produced new barriers to mobility, cutting off some parts of cities from others.

The Dan Ryan Expressway was originally planned to cut through Bridgeport, the neighbourhood of Mayor Daley, a neighbourhood which was relatively affluent and white. When the final plans emerged, it was adjusted to follow Wentworth Avenue south. Wentworth Avenue was a historical dividing line between majority black and majority white parts of the city historically policed by all manner of racial violence. Wentworth Avenue was replaced by 14 lanes of traffic. The chosen route, through the majority black Bronzeville, also meant that far more black homes than white homes had to be demolished. Despite only making up 23% of the city's population, 64% of those displaced by construction were black. When it was finished, the route of the Dan Ryan Expressway facilitated relatively speedy north south travel by car, but effectively cut off older east west routes linking black and white neighborhoods (Cohen and Taylor).

It is not just in urban environments where routes create rupture. One of the structural reasons for increased threats from viruses such as the SARS-CoV-2 virus is the rupture caused by roads being built into relatively undisturbed forests in the name of development. Aerial shots of Amazonia show how 95% of all forest destruction and the preponderance of major forest fires occurs within 5 kilometers of roads (Cano-Crespo et al.). The rupture of routes can also bring with it unexpected mobilities and unwanted connections.

Desire Lines and Detours

“Desire lines” is the name given by planners to the marks made on the earth as humans and

other animals create their own routes—following their desires rather than the expectations of planners and others. We often encounter them cutting corners where formal paths describe rigorous right angles. These unapproved and informal routes are suggestive of how routes are not always representations of the will of the powerful (Smith and Walters; Luckert). Routes can also be unruly or subversive. It is this distinction between the imperial routes of transport and the quotidian routes of wayfaring trails that Ingold makes. “The wayfarer, in his perambulations”, Ingold writes, “lays a trail in the ground in the form of footprints, paths, and tracks” (79). “The lines made by wayfarers”, Ingold continues, “are woven into the country itself . . . Every such line is tantamount to a way of life” (80). These are different from the routes of transport associated with imperial occupation, routes which cut “the occupied surface into territorial blocks” (81). While Ingold’s anthropological musings tend to centre on wayfaring in Indigenous societies, his insights certainly translate into urban life.

The poet and artist Maarten Inghels became intrigued by the proliferation of security cameras in his home city of Antwerp, Belgium. He was particularly alarmed by news of an automatic system that could recognise a license plate of a car and track it down within fifteen minutes. Inghels decided to find a completely camera-free route through Antwerp and represent it on a simple map. He walked his route on June 21st 2017 and then produced his map. He traced his route in red felt tip amongst the known sites of security cameras marked with black dots and circles. He called his map *Invisible Route*—a route through the city where you might avoid being subject to calculation and algorithms of safety and danger (see Giaimo).

Routes are also instrumental in the production of meaning, stories, and narratives. Routes and stories are intimately linked in the human imagination. For some people, the link between route and life story is literal. In her eight-channel video installation artwork, *The Mapping Journey Project*, Moroccan-French artist Bouchra Khalili follows the journeys of eight people who were forced by unlivable conditions at home as they move between Africa and Europe. She asks each participant to draw their route onto a map as they tell the story of their journey. The routes are drawn slowly as they talk with thick black permanent markers. Khalili insisted on permanent markers as, in her words, it is “as if their drawing were literally erasing the existing and arbitrary boundaries; a singular voice; and a singular trajectory.”

The new thick black lines appear against the familiar institutionalised lines of a political map with its established borders and networks of routes. The map, as we know, is a visualisation of forms of spatialised authority. The new lines form a counter-map—an alternative routed geopolitics. The new black lines often double back or circle as the narrator of the journey describes the processes of illegal movement—the friction that the line encounters when it meets the older established lines of the map. Each journey and each story, each route, stands by itself as a singular account, but the fact that there are eight journeys happening at once in a single room creates a polyphony of routes that are at

once singular and collective—a sinuous interweaving of particular stories and trajectories that interact with the familiar territories that surround them—both deriving meaning from them and calling them into question. There are no faces in *The Mapping Journey Project*, only hands drawing lines on maps, accompanied by the voice relating to the journey. The lack of faces perhaps reflects the link between surveillance and the spatialities of maps with their defined routes and borders. This links *The Mapping Journey Project* back to Inghels' *Invisible Route*.

Michel de Certeau famously described routes as spatial stories. They traverse and organise places as they are operationalised through practice. In de Certeau this tends to happen through walking—a practice that enables the tactical use of what is strategically given by the planner—the authorities. To de Certeau, the route of the walker actualized the grammar —“the ensemble of possibilities”—of the city, privileging, transforming or abandoning elements, actualising “only a few of the possibilities fixed by the constructed order (he goes only here and not there)” and increasing “the number of possibilities (for example, by creating shortcuts and detours) and prohibitions (for example, he forbids himself to take paths generally considered accessible or even obligatory)” (98-99). Desire lines are a material reminder of de Certeau's drifting walker. An improvised infrastructure produced my repeated practice. de Certeau's mention of detours mirrors Édouard Glissant's discussion of the *détour*. *Détour* has been translated in a number of ways including as “diversion,” which suggests a forced change of route, and simply as “detour.” Glissant uses the term in broadly metaphorical ways, linking the act of taking an alternative route to all kinds of cultural and linguistic diversions that are partly forced by the colonial centre and partly creatively refuse the routes (metaphorical or otherwise) provided by dominant society in order to twist them against themselves in sly ways. These detours share a lot with de Certeau's cunning tactics or James Scott's “weapons of the weak.” They consist, as Lauren Brown has put it “of ambiguous adjustments that neither confront nor acquiesce, creating their own solutions. The response takes a circuitous path because the domination is nebulous, emanating from a distant source” (89). “To chart the experience of detour,” Dhareshwar writes, “is to mark the disjunctive effects of the epistemic violence on the inventions of postcolonial identity. The work of postcolonial intellectuals has been a poetics (in the sense of making, doing, participating, saying) of detour, a constant negotiation with the structures of violence and violation” (Dhareshwar npn).

Concluding Remarks

Here I have made a case for a critical theorisation of routes within mobility studies. Drawing on existing work on forms of routes and routing, I suggest that a focus on routes and routing within mobility studies will help us to understand the wider role of mobility in the production, maintenance, and potential transformation of social and cultural worlds. While early work on routes within the frame of spatial science drew our attention to generalised

ways in which routes warped and folded time and distance, a fuller theorisation of routes and routing should recognise the capacities and affordances of routes in relation to meaning and power, their role as means of connection and disconnection, their positions in space in addition to the ways they warp and fold space time. It should recognise the relationship between routes and the geographies around them—the ways places are brought into being or ruptured and destroyed. We should be alive to the ways routes channel mobilities, and we should ask whose interests are being served by this routing.

Similarly, we should pay heed to the material infrastructures that form routes, from the brute physicality of transport routes cutting through cities to the worn grass that signifies a desire line. These infrastructures often connect points and disconnect points at the same time through their material presence. We should be aware that routes are kinds of places. We should ask how the meanings of routes are different from the meanings of other spatial forms and presences—how they create stories through arrangements in time and space. They carry significance and meaning partly because of the way we practice routes—the ways we move as metaphorical citizens or vagabonds. And we should ask how routes are given meaning and enact power through the reiterative practices of mobility they enable—or insist upon—from the flow of container ships through the English Channel to the flow of migrants in small boats across it.

All of these involve the ways power is produced, reinforced, and distributed through the creation of striated space in the arteries and veins of territories. And we should be aware of the ways the illicit, the marginalised, and the downtrodden—the metaphorical vagabonds—both hitch rides on the routes of power, and create their own desire lines as diagrams of their own agency in a world that attempts to deny them the promised land of the citizens (Cresswell).

Competing Interests

The author(s) reported that no competing interests exist.

ORCID

Tim Cresswell <https://orcid.org/0000-0002-9450-9339>

Works Cited

- Anzaldúa, Gloria. *Borderlands: La Frontera = The New Mestiza*. Aunt Lute Books, 1987.
- Brown, Lauren A. "Spatial Identities and Glissantian Detour: Narrative Strategies in Maryse Condé's *Traversée De La Mangrove*." *Symposium: A Quarterly Journal in Modern Literatures*, vol. 69, no. 2, 2015, pp. 87-97, <https://doi.org/10.1080/00397709.2015.1038946>.
- Bullard, Robert D., et al., editors. *Highway Robbery: Transportation Racism & New Routes to Equity*. South End Press, 2004.

- Cano-Crespo, Ana, et al. "Spatio-Temporal Patterns of Extreme Fires in Amazonian Forests." *The European Physical Journal Special Topics*, vol. 230, no. 14, 2021, pp. 3033-44, <https://doi.org/10.1140/epjs/s11734-021-00164-3>.
- Carter, Paul. *The Road to Botany Bay: An Essay in Spatial History*. Faber, 1987.
- Clifford, James. *Routes: Travel and Translation in the Late Twentieth Century*. Harvard UP, 1997.
- Cohen, Adam, and Elizabeth Taylor. *American Pharaoh: Mayor Richard J. Daley: His Battle for Chicago and the Nation*. Little, Brown and Company, 2000.
- Cresswell, Tim. "The Citizen and the Vagabond: Key Figures in the History of Mobilities." *SPELL*, vol. 41, 2022, pp. 25-44, <https://doi.org/10.5169/seals-1029454>.
- de Certeau, Michel. *The Practice of Everyday Life*. Translated by Steven Rendall, U of California P, 1984.
- Deleuze, Gilles, and Felix Guattari. *Nomadology: The War Machine*. Translated by Brian Massumi, Semiotext(e), 1986.
- _____. *A Thousand Plateaus: Capitalism and Schizophrenia*. Translated by Brian Massumi, U of Minnesota P, 1987.
- Dhareshwar, Vivek "Toward a Narrative Epistemology of the Postcolonial Predicament." *Inscriptions: Traveling Theories, Traveling Theorists*, vol. 5, 1989, <https://culturalstudies.ucsc.edu/inscriptions/volume-5/vivek-dhareshwar/>.
- Ducruet, César. "The Geography of Maritime Networks: A Critical Review." *Journal of Transport Geography*, vol. 88, 2020, p. 102824, <https://doi.org/10.1016/j.jtrangeo.2020.102824>.
- Garrison, William L. "Connectivity of the Interstate Highway System." *Papers in Regional Science*, vol. 6, no. 1, 1960, pp. 121-37, <https://doi.org/10.1111/j.1435-5597.1960.tb01707.x>.
- Gaiimo, Cara. "Mapping Antwerp's Last 'Invisible Route.'" *Atlas Obscura*, 2 Oct. 2017, <https://www.atlasobscura.com/articles/antwerp-invisible-route-map-surveillance-cameras>.
- Graham, Stephen, and Simon Marvin. *Splintering Urbanism Networked Infrastructures, Technological Mobilities and the Urban Condition*. Routledge, 2001.
- Haggett, Peter. *Locational Analysis in Human Geography*. Edward Arnold, 1965.
- Harvey, Penny, and Hannah Knox. *Roads: An Anthropology of Infrastructure and Expertise*. Cornell UP, 2015.
- Horton, Robert E. "Erosional Development of Streams and Their Drainage Basins; Hydrophysical Approach to Quantitative Morphology." *Geological Society of America Bulletin*, vol. 56, no. 3, 1945, pp. 275-370, [https://doi.org/10.1130/0016-7606\(1945\)56\[275:EDOSAT\]2.0.CO;2](https://doi.org/10.1130/0016-7606(1945)56[275:EDOSAT]2.0.CO;2).
- Hvattum, Mari, et al., editors. *Routes, Roads and Landscapes*. Routledge, 2011.
- Ingold, Tim. *Lined: A Brief History*. Routledge, 2007.
- Luckert, Erika. "Drawings We Have Lived: Mapping Desire Lines in Edmonton." *Constellations*, vol. 4, no. 1, 2012, pp. 318-27, <https://doi.org/10.29173/cons18871>.
- Khalili, Bouchra. *The Mapping Journey Project*. 2008-2011. MOMA, <https://www.moma.org/audio/playlist/29/508>.
- Mahajan, Avichal. "Highways and Segregation." *Journal of Urban Economics*, 2023, p. 103574, <https://doi.org/10.1016/j.jue.2023.103574>.
- Merriman, Peter. *Driving Spaces: A Cultural-Historical Geography of England's M1 Motorway*. Blackwell, 2007.
- _____. "Enfolding and Gathering the Landscape: The Geographies of England's M1 Motorway Corridor." *Routes, Roads and Landscapes*, edited by Mari Hvattum et al., Routledge, 2011, pp. 213-26.
- _____. "Roads." *The Routledge Handbook of Mobilities*, edited by Peter Adey et al., Routledge, 2013, pp. 196-204.
- Peters, Kimberley. "Deep Routeing and the Making of 'Maritime Motorways': Beyond Surficial Geographies of Connection for Governing Global Shipping." *Geopolitics*, vol. 25, no. 1, 2020, pp. 43-64, <https://doi.org/10.1080/14650045.2019.1567499>.
- Roberto, Elizabeth, and Elizabeth Korver-Glenn. "The Spatial Structure and Local Experience of Residential Segregation." *Spatial Demography*, vol. 9, no. 3, 2021, pp. 277-307, <https://doi.org/10.1007/s40980-021-00086-7>.
- Robinson, Roger. *Ways to Move: The Geography of Networks and Accessibility (Cambridge Topics in Geography Series)*. Cambridge UP, 1977.
- Rostow, Walt W. *The Stages of Economic Growth, a Non-Communist Manifesto*. Cambridge UP, 1960.
- Rumford, Chris. "Theorising Borders." *European Journal of Social Theory*, vol. 9, no. 2, 2006, pp. 155-69, <https://doi.org/10.1177/1368431006063330>.
- Scott, James C. *Weapons of the Weak: Everyday Forms of Peasant Resistance*. Yales UP, 1985.
- Silvey, Rachel. "Borders, Embodiment, and Mobility: Feminist Migration Studies in Geography." *The Companion to Feminist Geography*, edited by Lise Nelson and Joni Seager, Blackwell, 2005, pp. 138-49.
- Smith, Naomi, and Peter Walters. "Desire Lines and Defensive Architecture in Modern Urban Environments." *Urban Studies*, vol. 55, no. 13, 2018, pp. 2980-95, <https://doi.org/10.1177/0042098017732690>.
- Strahler, Arthur N. "Hypsometric (Area-Altitude) Analysis of Erosional Topography." *GSA Bulletin*, vol. 63, no. 11, 1952,

- pp. 1117-42, [https://doi.org/10.1130/0016-7606\(1952\)63\[1117:HAAOET\]2.0.CO;2](https://doi.org/10.1130/0016-7606(1952)63[1117:HAAOET]2.0.CO;2).
- Swyngedouw, Erik. "Communication, Mobility and the Struggle for Power over Space." *Transport and Communications Innovation in Europe*, edited by G. Giannopoulos and A. Gillespie, Belhaven Press, 1993, pp. 305-25.
- Taaffe, Edward J., et al. "Transport Expansion in Underdeveloped Countries: A Comparative Analysis." *Geographical Review*, vol. 53, no. 4, 1963, pp. 503-29, <https://doi.org/10.2307/212383>.
- Tharoor, Shashi. *Inglorious Empire: What the British Did to India*. Hurst & Company, 2017.
- Urry, John. *Mobilities*. Polity, 2007.