

Visualizing frictional encounters: Analyzing and representing street vendor strategies in Vietnam through narrative mapping

Sarah Turner^{a,*}, Celia Zuberec^a, Thi-Thanh-Hiên Pham^b

^a Department of Geography McGill University, 805 Rue Sherbrooke, West Montreal, Canada, H3A 0B9

^b Département D'études Urbaines et Touristiques, Université Du Québec à Montréal, 315 Rue Sainte-Catherine Est, Montréal, Qc, H2X 3X2, Canada

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ABSTRACT

This paper examines the strengths and complexities of utilising narrative mapping to better understand and represent street vendors' everyday experiences as they attempt to access public spaces for their livelihoods. We draw on three case studies from urban Vietnam to compare and contrast both vendor experiences and narrative mapping potential. Focusing on stationary and itinerant vendors in the country's capital city, Hanoi, and in a rapidly growing upland tourist town, Sapa, we want to better understand the lived experiences and strategies of vendors who are often targeted by state officials for fines or bribes, as well as being demeaned for being 'non-modern' and 'out of place'. We find that narrative mapping allows us to identify spatial and temporal patterns emerging from our data more easily than traditional text-based analyses, helping us to illustrate public space competition, frictions, and negotiations. Such an approach could make related research more accessible to a broad audience and support non-governmental organisations wanting to inform government officials with regards to how public spaces can be more equitably shared and utilised. More broadly, we suggest that narrative mapping can add nuance to analytical interpretations regarding marginalised populations in the Global South.

1. Introduction

Narrative mapping encompasses a range of forms of qualitative cartography increasingly being used to represent the relationships between the lived experiences of individuals or groups, and their socio-spatial environments. By integrating qualitative data into traditionally quantitative maps, the range of phenomena that geographers are able to analyse and depict is greatly increased. In particular, narrative mapping has been adopted in studies to represent how the mobilities of marginalised bodies are constrained, with case studies emerging from the North American context (Boschmann & Cubbon, 2013; Kwan, 2008; Matthews, Detwiler, & Burton, 2006), Asia (Kim, 2015), and the Middle East (Fawaz et al., 2018). For instance, scholars have drawn on several forms of narrative mapping to shed light on the perceptions and experiences of queer communities in city locales (Boschmann & Cubbon, 2013; Brown & Knopp, 2008; Cieri, 2003). Others have adopted narrative mapping to highlight community members' knowledge and opinions in order to facilitate bottom-up and contextually-sensitive resource management, asset management, and community development (Hall, Chipeniuk, Feick, Leahy, & Deparday, 2010; Hawthorne, Krygier, & Kwan, 2008; Kyttä, Brober, Tzoulas, & Snabb, 2013). Further variations have been

used to visualize place-based life histories, historical events, and the contents of diaries (Caquard & Dimitrovas, 2017; Pearce, 2008; Watts, 2010).

The increasing interest in narrative mapping is, in large part, a response to calls from feminist and queer geographers to make GIS and cartography more critical (Cieri, 2003; Kwan, 2002). By capturing "multiple subjectivities, truths, and meanings" the maps created as part of this approach are contributing in important ways to geographers' understandings of how space and place are experienced and reproduced (Knigge & Cope, 2006, p. 2035). As such, narrative mapping shows great potential for challenging top-down and official narratives (Kim, 2015; Pearce, 2014). Due to this focus on providing voice to marginalised groups, or visualizing counter-spaces (Lefebvre, 1991), several observers argue that narrative mapping can be considered a form of 'countermapping' (Boschmann & Cubbon, 2013).

With these possible uses and positive outcomes in mind, our aim is to determine the degree to which narrative mapping can be used to analyse and highlight the mobilities, tensions, and tactics of marginalised communities attempting to use urban public spaces for their livelihoods in the Global South. Specifically we focus on the livelihoods of street vendors in Vietnam and their ability to access public spaces in which to

* Corresponding author.

E-mail address: sarah.turner@mcgill.ca (S. Turner).

trade their wares in contexts where they are often targeted for street clearing raids, fines, and bribes (Turner & Schoenberger, 2012). While wanting to analyse and represent the difficulties that vendors have in accessing specific public spaces, we also focus on their tactics and resourcefulness, and the spatial patterns and mobility that underscore these at a fine spatial scale – from streets to squares. Narrative mapping appears to offer innovative means by which to both scrutinise and illustrate these elements. Our hope is that by combining a range of ethnographic methods with cartographic approaches we can better demonstrate these vendors' livelihoods and coping mechanisms across both space and time, while making our results accessible to non-academic audiences, including non-governmental organisations and policy makers.

To better ground our aim in the relevant methodological literature and critiques, next we review how narrative mapping has been used within geography to date. This includes a brief overview of different categories of narrative maps and their production. With this review designed as our conceptual framing, we then briefly introduce the context in which the street vendors at the heart of this piece are attempting to shape their livelihoods. We subsequently outline our three case studies of vendor negotiations and tactics as they attempt to access different public spaces for their livelihoods in Vietnam's capital city Hanoi, and Sapa town, a northern Vietnam upland tourist destination. We describe our efforts to bring vendor narratives to life visually, while highlighting both the spatial and temporal tensions in each case. We conclude by considering the benefits and limitations that we found while trying to design and use narrative maps as both an analytical tool and a form of representation. We also explore how narrative mapping could be drawn upon to advance positive policy options for multiple public space users, including marginalised groups, in the Global South.

2. Narrative mapping conceptualised and categorised

Narrative maps are considered to go beyond or even reject the positivist principles of cartography, with some transgressing the Cartesian confines of space by incorporating temporal dimensions (e.g. Caquard & Dimitrovias, 2017; Kim, 2015; Kwan, 2008; Kwan & Ding, 2008). Narrative maps also incorporate other innovative approaches by representing various forms of media, including excerpts from interviews (Bell, Phoenix, Lovell, & Wheeler, 2015; Evans & Jones, 2011; Hawthorne et al., 2008), passages from stories or journals (Pearce, 2008, 2014; Watts, 2020), photographs (Jung & Elwood, 2010; Kim, 2015), sketches and paintings (Hall et al., 2010; Jung & Elwood, 2010), or even word clouds (Cidell, 2010; Hawthorne, Solís, Terry, Price, & Archison, 2015). Geographers have also challenged the norms of Euclidean geometry by depicting bodies and their movement at multiple scales (Kim, 2015; Kwan & Ding, 2008; Pearce, 2008). Others have utilised narrative mapping to “highlight the subjectivities that enter into virtually all representations of geographic space and human interaction” (Cieri, 2003, p. 149). As a result, such maps have been used to challenge accepted spatial boundaries (Fawaz et al., 2018).

Such innovative approaches add an important element to map-making as Mennis et al., (2012, p.271) note: “Qualitative data can provide a much richer representation of the lived experience of individuals as compared to traditional, quantitative GIS data”. Given the flexibility inherent in the creation of these maps, the final products take on a wide range of forms varying from two-dimensional and printed maps, to three-dimensional, interactive, and digital versions. Such flexibility in representation is key to making this approach appropriate and appealing for a range of contexts, studies, and audiences.

2.1. Categorising narrative maps and their production

Caquard and Cartwright (2014, p. 101) propose two primary ways of “envisioning the relationships between maps and narratives”: first, maps used to “represent the spatial structures of stories” (ibid., p.102) and

second, “maps as narratives” (ibid., p.105). Following this framework we identify two clusters of mapping techniques with distinct methods of data production and representation. The key distinction between these two perspectives lies in the existence – or not – of a defined chronology of events (Kwan & Ding, 2008). Specifically, the first category of maps and map-making approaches tend to have a chronologically structured narrative, while the second category's narrative potential stems from the presence of other properties discussed below.

For the first mapping category, narratives are produced through illustrating a defined sequence of events. This is done primarily through drawing a route across space; either by plotting a precise GPS tracked route (Bell et al., 2015; Evans & Jones, 2011) or a less exact route derived from a go-along interview (Kim, 2015). Alternatively, a chronology of events may be constructed by mapping key locations identified in oral histories (Caquard & Dimitrovias, 2017; Kwan, 2008; Matthews et al., 2006), diaries (Kwan, 2008; Kwan & Ding, 2008; Pearce, 2008), or in stories and memoirs (Pearce, 2014; Watts, 2010). This produces: “An entire narrative, beginning to end” that is “delivered to the map-reader in a single gaze” (Pearce, 2008, p. 24). This approach is often reinforced by the integration of temporality into the map in order to give the events a distinct timeline. An excellent example is Kwan and Ding's (2008) life paths of women living in Columbus, Ohio. They created innovative narrative maps drawing on data collected from activity diaries and oral histories to depict Muslim women's lived experiences and emotional geographies when confronted with anti-Muslim rhetoric and the fear of hate-crimes following the terrorist attacks of September 11, 2001 in the US. In a related article, Kwan (2008, p.658) notes that by incorporating both spatiality and temporality, this method “allows the researcher to articulate how a person's feelings may change as she visits different places at different times”. Another, albeit less common approach entails depicting spatial usages over time (Brown & Knopp, 2008; Kim, 2015). A notable example is Kim's (2015) space-time map of a city block in Ho Chi Minh City, Vietnam. In this map, ribbons or broad lines of colour are plotted in a two-dimensional space, with their colour corresponding to their specific spatial-uses. A z-axis then integrates time into the map to show how “the use of sidewalk space fluctuates over time, by type of use” (Kim, 2015, p. 124). Complementary data, such as excerpts from interviews, or stories and photographs are then often linked to specific sites on the maps. Overall, this approach lends itself to the representation of data with an explicit spatiality and/or temporality.

Regarding the second mapping category, Caquard and Cartwright (2014, p. 101) suggest that: “The narrative power of maps has also been exploited by scholars, journalists, activists, lobbyist and individuals to tell non-fictional stories, as support tools in their research and to assist in developing arguments about places”. Included in this approach are forms of qualitative cartography that do not integrate a chronology of events but that still tell detailed stories of people or places. The ways in which scholars have applied this approach vary considerably with several methods of data collection including sketch maps (e.g. Boschmann & Cubbon, 2013; Brennan-Horley & Gibson, 2009), interviews (e.g. Cieri, 2003; Jung & Elwood, 2010; Mennis, Mason, & Cao, 2013), and different forms of public participation geographic information system (PPGIS) (Hall et al., 2010; Kyttä et al., 2011). For instance, Brennan-Horley and Gibson (2009) used mental-mapping and interviews with 98 participants to uncover the location of ‘creativity’ in Darwin, Australia. Field journals (Hawthorne et al., 2015), the analysis of transcripts and newspapers (Cidell, 2010), and surveys and questionnaires (Kyttä et al., 2011) have also been drawn upon. Others again have used photography, sketching and painting (Bagheri, 2014; Jung & Elwood, 2010; Knigge & Cope, 2006), and participant observation (Bagheri, 2014; Knigge & Cope, 2006). Many scholars draw on multiple data collection methods, thus allowing for “synergistic data sets to inform each other and to be analyzed together rather than separately” (Hawthorne et al., 2015, p. 24).

The forms of data representation made possible through this second approach vary as greatly as the modes of data production. Geographers

have used data visualization (Bagheri, 2014; Knigge & Cope, 2006), and digitizing and geo-referencing (e.g. Boschmann & Cubbon, 2013; Brennan-Horley & Gibson, 2009; Mennis et al., 2013) to construct visual representations of their data. Many also integrate other media into maps by inserting links or hyperlinks to photos, sketches, paintings, or hand-written notes (Cieri, 2003; Hall et al., 2010; Jung & Elwood, 2010). Links can also be made to interview excerpts (Fawaz et al., 2018; Kyttä et al., 2011), or content clouds (Cidell, 2010; Hawthorne et al., 2015). Others have colour-coded elements in the maps according to participants' perceptions (Fawaz et al., 2018; Kwan, 2008; Mennis et al., 2013), and used forms of PPGIS to produce narrative maps (Hall et al., 2010; Jung & Elwood, 2010). By making qualitative data the focal point of these maps, the participants' experiences and perceptions are emphasized in relation to other quantitative data that may be present.

After briefly introducing the contexts in which the street vendors at the core of this study negotiate access to public spaces next, we then delve into three case studies that span the mapping categories introduced above. Outlined below, Map 1 focuses on conflicts over space use in a Hanoi urban park during busy evenings, and captures elements from both mapping categories outlined above. It highlights conflicts between different user groups with an emphasis on specific micro-scale clashes, while an accompanying timeline of these conflicts provides further fine-grained analysis. Map 2, focusing on street vendor routes and routines in central Hanoi is a chronologically structured narrative, hence fitting our first category above more centrally. Map 3, detailing the politics of ethnic minority street vending in the upland tourist town of Sapa straddles both approaches, highlighting both chronologically structured changes to urban space access, as well as vendor complaints and spatial tactics.

3. Contextualising street vendor tactics in urban northern Vietnam

Across the Global South, street vendors often find themselves facing restrictive policies as governments strive to make their countries, and especially cities and tourist regions, more 'modern'. Planning regulations in Global South cities and towns rarely support street vending, which is instead seen as outdated, obsolete, and unhygienic (Brown, 2006). In Vietnam, urban planning goals routinely push a development discourse of becoming 'green, clean, civilised, and modern' (*xanh, sạch, văn minh, hiện đại*) (Coe, 2015; Pham & Labbé, 2017). To this end, in 2008 Hanoi introduced a ban on street vending along 62 selected streets and 48 public spaces (People's Committee of Hanoi, 2008). Nonetheless thousands of street vendors continue to trade within the capital city, artfully dodging neighbourhood officials and police when and where necessary. These vendors tend to represent two fairly distinct groups – the first are long-term Hanoi residents, often vending for some extra cash or as a retirement hobby. The second group are migrant vendors, who arrive in the city with the primary purpose of supporting their family, especially their children's school costs, and often lacking the formal education or necessary social capital to gain formal employment. They might also choose street vending for the flexibility it provides with regards to farming tasks or childcare responsibilities (Agergaard & Vu Thi Thao, 2011; Turner, 2014).

Turning to Vietnam's northern uplands, we find urbanisation being strongly encouraged and urban planning approaches generally reproducing low-land approaches striving for modernity (Henein, Pham, & Turner, 2019). Nonetheless, in the rapidly growing tourist town of Sapa, located in the borderland province of Lào Cai, policies regarding street vending have been far more fluid to date than in Hanoi, as has been their implementation and policing. Yet, in 2016 the 'Master Plan for Development of Sapa National Tourist Resort in Lào Cai Province through 2030' noted that street vendors were antithetical to the development of the town's tourism sector, bluntly outlining the need to "take action against street vendors" (Socialist Republic of Vietnam, 2016, Section 6e). To date, vendors in Sapa have tended to be divided along ethnic

lines with Kinh (lowland Vietnamese majority) vendors often having fixed stalls with trolleys or other equipment and seldom harassed by officials. Ethnic minority Hmong and Yao (Dao) vendors tend to trade itinerantly or have smaller fixed stalls (a cloth lying on the ground with goods displayed on it) that they move quickly when officials decide to crack-down on their selling in the town.

Previous research regarding street vendors in Hanoi has focused on the tensions that have arisen as different anti-vending policies have been implemented to limit vendor access to public space (e.g. Drummond, 1993; Higgs, 2003; Jensen, Peppard, & Thi Minh Thang Vu, 2013; Koh, 2008), as well as vendor responses and tactics (Eidse & Turner, 2014; Turner and Schoenberger, 2012). Far less work has been undertaken with vendors in upland northern Vietnam, with one article to date focusing on vendors in Sapa town (Turner & Oswin, 2015). Such studies have been completed using a broad range of ethnographic methods including semi-structured and conversational interviews, participant observation, surveys, and solicited journaling (Eidse & Turner, 2014). These methods have produced rich analyses of street vending livelihoods and tactics, yet these analyses have been written-up using fairly standard textual approaches. Results are thus presented in words with key interpretations supported by quotes, tables of data, and sometimes photographs. As such, we were curious to experiment with approaches that move beyond these typical representations to determine whether narrative mapping can provide us with "a spatial analysis that deeply integrates ethnographic and social structures" in new ways (Kim, 2015, p. 125), and whether the final products could be more widely accessible, a theme we return to in our conclusion.

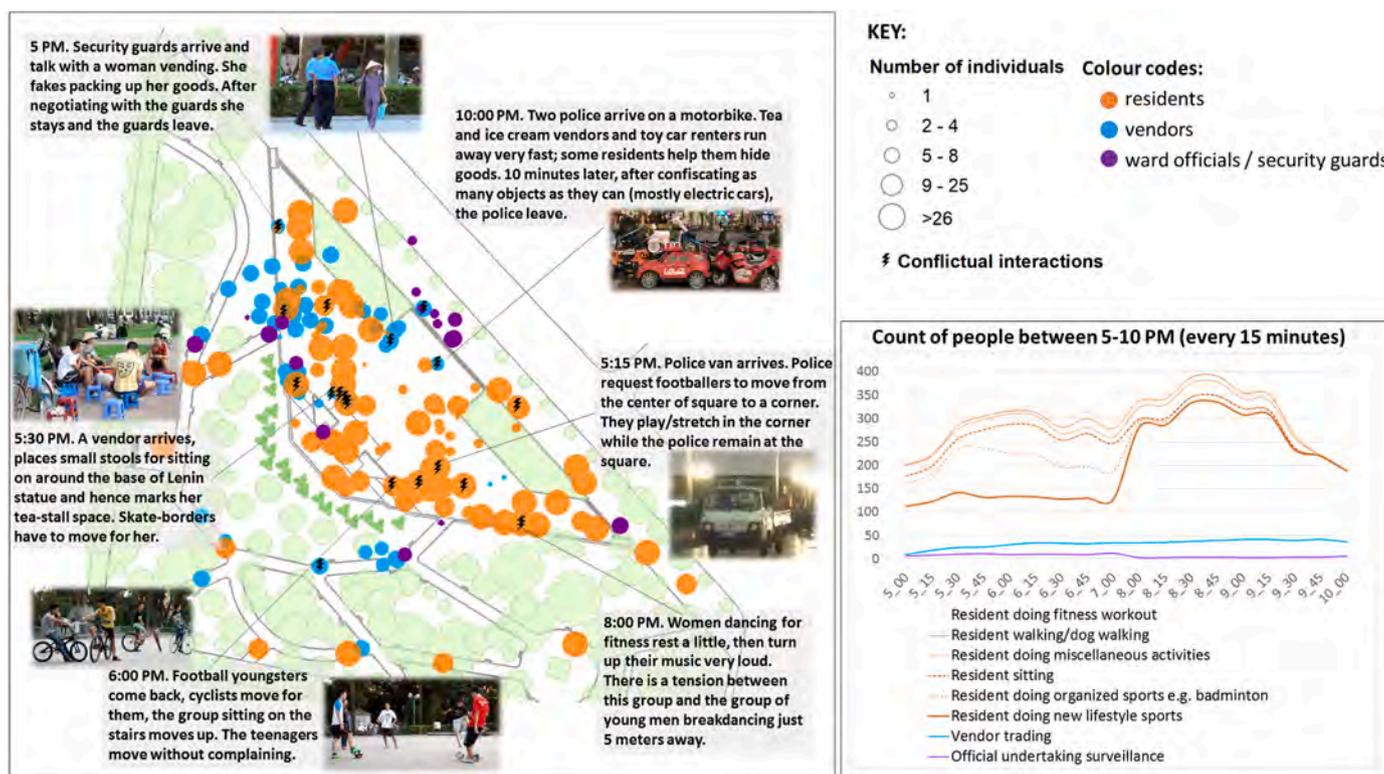
4. Mapping street vendor narratives via three case studies

4.1. Map 1. Conflicts over space use in a Hanoi urban park

Pressure on Hanoi's urban public spaces is growing rapidly, with the ratio of public space per capita shrinking due to demographic growth as well as encroachment by commercial activities. Remaining public spaces experience intensive use for leisure, exercise, and small-scale trade (Pham & Labbé, 2017). Focusing on a popular small park near the city centre, Map 1 represents the behaviours of different categories of users across space and time in Công Viên Lênin (Lenin Park). This park is located in the city's historical and political heart in a dense residential area, with more than 30 000 people/km² within a 1-km radius. Hundreds of people from nearby residential blocks utilise the park daily, while youth visit from further afield because of the park's reputation as a 'cool' locale to skateboard and practice parkour (Geertman, Labbé, Boudreau, & Jacques, 2016; Pham & Labbé, 2017).

To create Map 1, detailed observations and counts of individuals in the park were conducted every 15 min between 5 and 10pm by three researchers, for four evenings (three weekdays and Saturday) in summer 2014. The researchers sketched the locations of individuals or groups (considered more than five people) on paper maps that were then transcribed into points (dots) in a shape file in ArcGIS. They also noted the numbers of people, activities, interactions, age (estimated visually), sex, and relationships between people in groups when possible (for example interacting like friends, family, or strangers). Interviews were also completed to inform our understandings of practices in the square during summer 2014 and again in October 2019.

Co-author, Pham, then classified the individuals present into three 'categories of users': street vendors; authorities - local neighbourhood/ward officials or security guards; and residents. She coded interactions between individuals or groups as positive or negative/conflictual, as determined by the three observing researchers (e.g. residents buying goods from vendors, or helping them hide goods from officials were categorised as positive; vendors fleeing police or security, or heated arguments between different user groups over space were deemed negative). The map was then designed in ArcGIS focusing on these three categories of users with circles proportional to the size of groups of



Map 1. Narrative map of different user groups and interactions at Lenin Park, Hanoi.

individuals in specific locations in the park, as well as their interactions, over the four days. Photos and observational narratives were then added to represent the most frequent categories of users and the most common conflicts. She then merged the data of the four days into one database which contains points representing residents (111), street vendors (60), and authorities (22). The data from the observational files were also imported into the statistical program R 3.6.1. to create a table representing the three user groups, annotated by activity, across the observation time periods.

Map 1 provides a rich representation of the patterns of spatial negotiations and power relations among park users. We noted that at the busiest moments between 5 and 10pm there were 350 people in the park on a surface area of about 1700 m². These individuals stayed a little longer than 70 min on average. With such a densely used public space, it was not surprising that there was competition for access to specific sites and during the majority of observations, different categories of users were negotiating such access. Not surprisingly, larger groups tended to encroach on smaller groups or individuals. For example footballers ‘intruded’ into the space of individuals sitting and relaxing (see map observation narratives). Nonetheless, these competitions and negotiations for space only resulted in twenty observable negative interactions over the four observation days, revealing that users have become accustomed to interacting in certain ways and observing an ‘informal hierarchy’ as to who has the right to use what specific spaces and when. We observed that vendors were concentrated in the upper north-west of the park while residents tended to occupy the southern half of the park, a spatial separation that also helped to reduce competition for specific sites.

The fairly amicable negotiations were primarily between different groups of residents and vendors; not with authorities. Specific sub-

categories of users were targeted more frequently by authorities especially teenage boys playing football and specific street vendors. Vendors renting out toy electric cars for children were the most likely to be subjected to the impulses of the authorities, having their goods confiscated haphazardly to the degree that they were observed being ignored one evening, and chased – with some being fined – the next. In comparison, other vendors such as tea vendors were observed drinking tea, conversing, and laughing with authorities. Tea-stall operators suggested that this was due to them taking up small amounts of space and creating less noise (interviews 2019). Certain vendors also exerted power over other users, typically due to the length of time that they had been working there, marking their commercial ‘territory’ or driving their motorbikes into the middle of other groups in the park, to signal the vendor’s ‘turf’ that needed to be vacated by others (interviews, 2014, 2019).

By taking a micro-scale analysis of individual interactions and communications and attempting to map these, we became increasingly aware of the competition for access to specific spaces by different users. We also became far more cognizant of the subtle negotiations that take place and the hierarchy of users that has transpired. Moreover, within the category of vendors, we found a heterogeneous group with quite differential rights to access public space vis-à-vis authorities and other park users, due to their length of time vending and the goods they sold.

4.2. Map 2. Street vendor routes and routines in central Hanoi

While Map 1 considers the behaviors of fixed stall traders, here we focus on narrative mapping as a strategy to represent the resistance strategies, perceptions, and experiences of Hanoi’s mobile vendors. Although the 2008 ban affects all vendors equally on paper, past



Map 2. Itinerant street vendor migration pathway and daily route in central Hanoi.

research has found that it disproportionately affects the city's itinerant vendors who are largely low-income, rural-to-urban migrants (Turner, 2014). Subsequently, itinerant vendors lack the social and financial capital leveraged by many fixed stall traders to secure a sidewalk space (Koh, 2006). As a result, ward officials/police regularly target migrant vendors with fines and forms of harassment. In order to avoid such treatment, itinerant vendors rely heavily on their mobility; sometimes running into small alleyways to hide, or moving into a neighboring urban ward where the ward officials pursuing them (from a different ward) do not have the authority to fine them (Kim, 2015; Turner, 2014). As such, here we attempt to create a visual representation of the factors that motivate, enable, or inhibit the mobility of itinerant vendors, the way they perceive their treatment by officials and residents, and their resistance tactics (Map 2).

After completing semi-structured interviews with 35 migrant itinerant vendors, co-author, Zuberec, asked four vendors whether they would be willing to complete a 'walking-while-talking interview' (Evans & Jones, 2011; Kusenbach, 2003). Each interview began at the specific wholesale market where the vendor purchased their goods for the day and ended at their home upon completion of their workday. Between those two points Zuberec followed the vendors as they sought out customers and navigated the regulations of the city's street vending ban. She also gained permission from the vendors to use a GPS tracking application to collect data on their route. By shadowing the vendors over their full day Zuberec became attuned to the spatiality and temporality of the vendors' movements, while also gaining insights into their perceptions of their socio-spatial environment in situ.

Map 2, inspired by Kim's (2015) cartography project in Ho Chi Minh City, was created from a base-map generated using QGIS, a free and open source Geographic Information System. Once created, the map was imported as a PNG file into Photoshop where the vendor's daily route (derived from the collected GPS data) was drawn onto the base map. A portrayal of the vendor's migration from the countryside was also integrated, adding a second scale of the vendor's mobility to the map. At this stage, several layers of qualitative data including photos and quotations collected during the walking-while-talking interview were also embedded. The quotes were chosen in relation to the research questions of the project, noted above.

The final product brings together qualitative and quantitative data to represent how the vendor's perceptions of the city and her personal relationships with its inhabitants shape how and when she moves through specific spaces. Notably, the quotations illustrate how the vendor's mobility is constrained and driven by her perceptions of each area's relative safety. Consequently, although this map shows how the vendor follows a somewhat fixed route on a daily basis to meet regular customers, she explained that she will also alter her route over time should she experience a negative interaction or conflict with an official or resident in a particular area. Similarly, other factors such as weather and the length of time it takes to sell her products may cause her route to vary slightly from day-to-day. Finally, this map provides insights into the power differentials that exist between migrants and long-term Hanoi residents. Due to their position as migrants, the movement of itinerant vendors is more constricted and scrutinized compared to those originally from the city.

At a larger scale, the participant's circular migration from her home province to her rented apartment in Hanoi is depicted. By including this element a more complete narrative of the vendor's experiences of being a rural-urban migrant vendor in Hanoi is illustrated. The quotations linked to this migration route speak to the factors that drove her to take up vending in Hanoi and the ways by which she became established in the trade. Notably, as also found by Turner and Schoenberger (2012)

and Eidse, Turner, and Oswin (2016), this map illustrates some key ways by which bonding social capital and family ties supported this participant to find accommodation in Hanoi and 'learn the ropes' of vending. By combining several forms of data, the vendor's place-based practices, perceptions, and experiences can therefore be visually represented and analyzed in detail.

4.3. Map 3. The politics of vending as an ethnic minority in the uplands

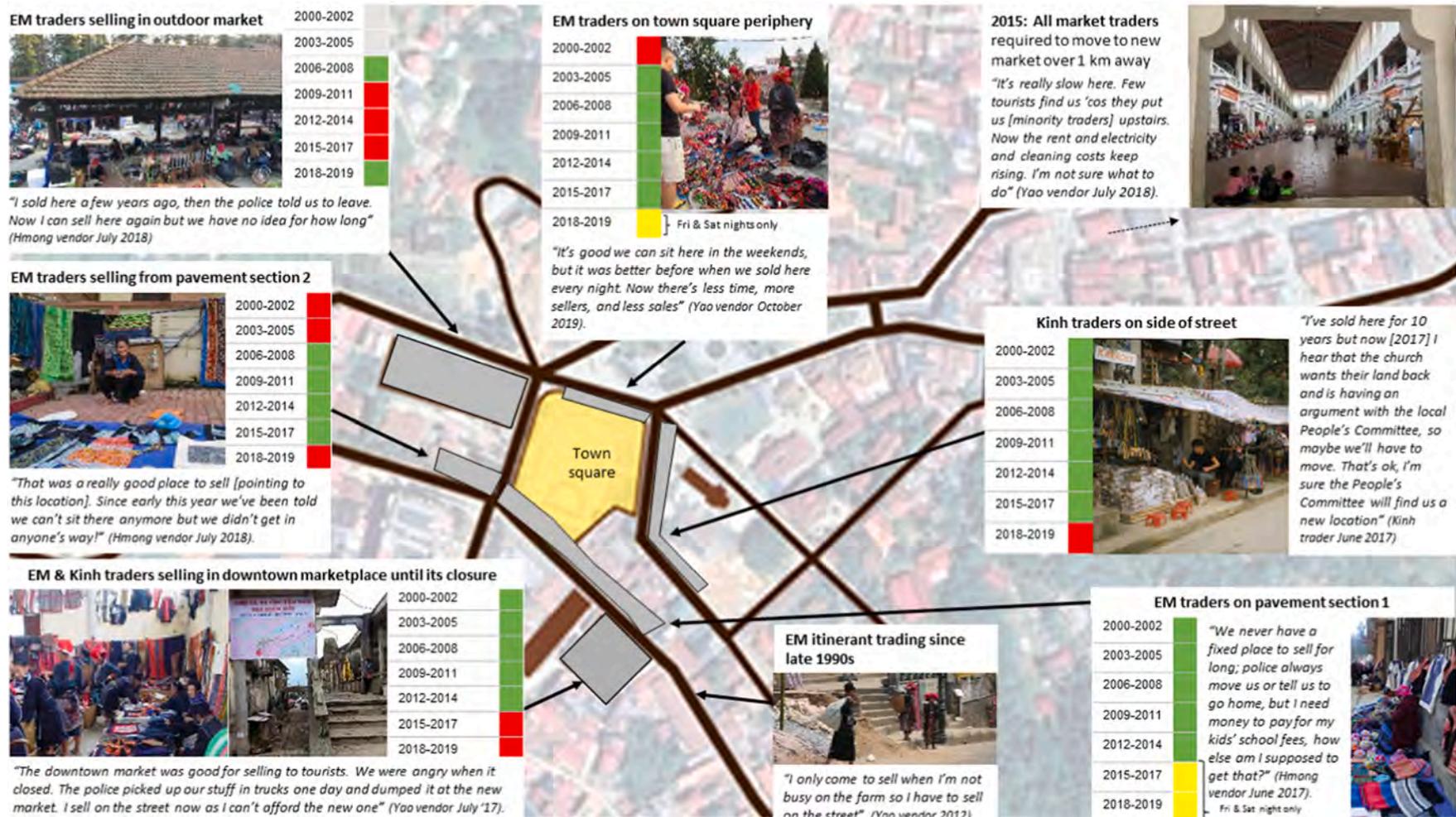
In Vietnam's northern uplands, Sapa town received over 3.2 million tourists in 2018, more than twice the visitors of four years prior (Vietnamnet, 2019). One cause of this dramatic increase has been the completion of a cable car near the town to the highest peak in Vietnam, Fansipan, which began operations in 2016. In 2014 a highway from Hanoi to Lào Cai City, the provincial capital and 33 km from Sapa town was also completed, cutting driving time from the capital from eight to five hours. While ethnic minorities comprise about 83 percent of Sa Pa District's population of 65 700 (Socialist Republic of Vietnam, 2019), they have very few decision-making powers in local government and tend to be fairly removed from Sapa town, living in hamlets and often undertaking semi-subsistence agriculture. Yet, as tourism has increased, more and more minority individuals have become involved, some as trekking guides or homestay operators, or as day labourers in Sapa town. A number of minority Hmong and Yao (Dao) women have also seized the opportunity to sell their embroidered clothes and small trinkets to tourists from the sidewalks of Sapa town or itinerantly on the town's main streets. As tourist numbers swell, these vendors are increasingly being considered by town officials as a nuisance, 'unsightly', and causing traffic congestion. Their access to public spaces for trade has thus been progressively more regulated and reduced since 2000 (Map 3).

Map 3 Accompanying table. Changes in locations indicated on Map 3 where street vendors had permission to trade from 2000 to 2019 in Sapa Town. Red is banned, yellow is Friday or Saturday evenings only, green is permitted.

Map 3 is based on observations and over 130 conversational interviews collected by co-author, Turner, with ethnic minority and Kinh (Vietnamese lowland majority) street vendors in Sapa town during twenty years of annual fieldwork until 2019. These vendors are overwhelmingly women, and range from very young children to 80 year olds. In addition, conversational interviews, oral histories, and life stories have been completed with 30 Kinh long-term residents, both male and female. Three Kinh officials also participated in semi-structured interviews, and the changing spatial patterns of vendor trade and enforcement of urban space regulations have been observed yearly.

To create Map 3 a base map was copied from Google Maps on top of which was traced the main vending streets and other spaces in the town. Since Turner wanted to illustrate the inconsistencies with which vending bans and policies have been enforced over the years in the town's main public spaces, she added mini-tables on the map with colour codes to note which years trade was permitted in a specific place (green), only permitted on Friday and Saturday evenings (yellow), or banned (red). Photos were added to the map along with a representative quote from vendors selling (or previously selling) at different locations in the town centre. The accompanying table or comparative table of locations, shows that in more recent years there has been an increase in the regulation or banning of vending from specific sites, and also highlights the irregularities of vendor enforcement across different sites.

The increasingly prescribed access to the town's main streets and public spaces for vending illustrated in Map 3



Map 3. Narrative map of permissible vending sites for ethnic minority and Kinh traders in tourist town of Sapa, upland Vietnam, over 20 years. Accompanying table is a comparative table summarising the changes in locations where street vendors had permission to trade from 2000 to 2019 in Sapa Town.

2000-2002						
2003-2005						
2006-2008						
2009-2011						
2012-2014						
2015-2017						
2018-2019						
Location:	Outdoor market	Pavement section 1	Town square periphery	Kinh: side of street	Pavement section 2	Downtown market place

(and accompanying table) means that street vendors now operate in an environment where fines and retribution for their trading livelihoods shift frequently depending on the whims of state officials. Ethnic minority traders expressed frustration at vending regulations while Kinh traders remained relatively positive. Minority traders explained that if they vend in the wrong area they can have their merchandise confiscated and have to pay a hefty fine to get it returned, with some – especially elderly women – adding that they were too scared of officials to approach them to collect their goods. The ethnic minority traders noted that they are seldom warned when or where a trading ban is going to be implemented, and hence can only gather their goods and run quickly if officials appear to be starting a new clearance sweep. They added that sometimes a clearance is announced on the town’s loud speaker system, hence providing Kinh traders with time to relocate but not all minority traders understand Vietnamese. Minority traders were especially frustrated at the move of the town’s main marketplace from the central core to a new site over a kilometer from the town’s centre in early 2015 (top right on [Map 3](#)). While minority vendors were initially able to vend at the new market for free, they have been paying increasing rental costs since 2017, which has become a problem for many. With the help of representative quotes and colour coded tables of vending restrictions, this map helps to illustrate minority vendors’ everyday livelihood struggles and frustrations when facing spatial and temporal irregularities of government trade restrictions over twenty years.

5. Mapping emotions, negotiations, and frictional encounters

Scholars have identified several notable benefits of narrative mapping that largely stem from its use of multiple or mixed-methods. By simultaneously drawing on a range of data, collected via a variety of approaches, [Bell et al. \(2015, p. 93\)](#) note that “understandings gained from one method are clarified and developed through the use of another”. Along similar lines, [Watts \(2010, p.208\)](#) argues that the use of multiple method geo-visualization allowed him to “more richly explain” historical events related to the 1992 Los Angeles riots, “integrate different points of view”, and account for each method’s weaknesses. We found these benefits to be true of our case studies too. A second major benefit noted of narrative mapping is the ability to clearly present

“context-sensitive” data ([Kwan, 2002, p. 651](#), see also [Bagheri, 2015; Kyttä et al., 2013](#)). Although many ethnographic approaches help researchers to gain nuanced understandings of individuals’ practices, perceptions, and experiences, narrative maps spatially (and often temporally) situate these findings immediately, hence contributing to our ability as geographers to uncover place ([Pearce, 2008](#)). As we sought to create narrative maps of these three places, we found it possible to illustrate everyday experiences, frustrations, negotiations, and frictional encounters with greater detail and nuance than we had first expected.

In [Map 1](#), the case of Lenin Park in Hanoi, we already knew that this public space is crowded in the evenings, but we had no knowledge of the specific forms and frequencies of interactions between different individuals and groups. Creating this narrative map allowed us to identify the main categories of users of the park (and sub-groups within these) and their activities, and to quantifiably confirm the denseness of the crowds at specific times. We were also able to note spatial divisions of space use and reveal the conflicts and negotiations over access to specific spaces among park users.

Systematic observations and behavioural mapping of park activities have been used in several previous studies ([Golichnik, 2011; Osterman, 2010](#)). Yet in those cases the physical settings were not as densely populated, nor the social groups as diverse as we found in Hanoi’s Lenin Park. While such studies, conducted in European cities, suggested a close relationship between the spatial/physical configuration of parks and their usage (i.e. where people do certain activities in parks), our findings pointed to more diverse usages within the same micro-spaces. Specifically, this narrative map allowed us to better capture, analyse, and represent the (potential) frictional encounters between different categories of users. We also found that while conflicts with authorities were not always easily solved, those between different user groups of residents were negotiated fairly peacefully due to certain informal rules, codes of behaviour, and hierarchies of users that have become part of the daily fabric of the park.

Prior to creating the narrative map of a migrant street vendor’s route through Hanoi ([Map 2](#)) we knew of the negative impacts of the street vending ban, as well as how the treatment of itinerant vendors by some officials and residents impacts vendor livelihoods and access to certain streets and public spaces to trade ([Eidse et al., 2016; Turner & Schoenberger, 2012](#)). However, by bringing together multiple sources of data from interviews, walking-while talking interviews, and observations, we could foreground a participant’s emotions, experiences, and perceptions. Concurrently, significant depth and nuance were added to our understandings of the ways by which a vendor’s perceptions of her physical and social space inform the temporality and spatiality of her movement within the city. This included, for example, modifications to daily routes due to conflicts with local authorities or with a particularly rude local resident. As such, we were able to far better understand why specific vending routes are followed, why specific places are favoured for pauses, and the frictional interplays that vendors face – or work to avoid – in their daily routines ([Cresswell, 2014](#)).

In the case of Sa Pa town’s ethnic minority vendors ([Map 3](#)), we had background knowledge of the different restrictions that ethnic minority vendors have faced regarding where they could vend in the town ([Turner & Oswin, 2015](#)). However the production of this narrative map allowed us to gain a far better understanding of when these changes had occurred and how haphazardly they had been implemented. The interviews further emphasized the impacts that these changes have had on ethnic minority vendors, and provided a point of comparison with Kinh traders who have not been as negatively impacted. By being able to visualize the locations and dates of bans or regulated vending, the narrative map provided an eye-opener into just how fragmented permissible vending spaces have become, as well as the overall reduction in permissible locations for vending by 2019. The frictions between local officials and minority vendors were palpable in vendor narratives of having to run to avoid having their goods confiscated, and their frustration at not knowing when new regulations were being put into

place.

Tsing (2005, p. 4) notes that friction is “the awkward, unequal, unstable, and creative qualities of interconnections across difference”. Such interconnections and interactions between different users and between users and state regulations transformed each of our three case study locales into complex social sites with new realities being created for all those involved. Cresswell (2016, p. 1085) adds that friction “is not a universal but has specific contours that reflect the places it occurs in”. This became very apparent as we noted the hierarchical power plays between: different vendors, and between different resident groups in Lenin Park (Map 1); between vendors and authorities, and between vendors and local residents on the streets of Hanoi (Map 2); and between vendors of different ethnicities, and between minority vendors and officials in Sapa Town (Map 3).

6. Concluding thoughts: creating an advocacy tool for street vendors?

Our case studies support the argument that narrative maps are able to counter the tendencies of positivist cartography that “leave out the people’s stories who socially construct public spaces through their actions and constantly (re)define boundaries in such places” (Bagheri, 2014, p. 1297). Narrative maps can play a central role in studies of marginalised communities who are attempting to access specific places at specific times. Moreover, they allow one to represent a range of dynamics and frictions around individual and group strategies, while highlighting how power is entrenched in public space negotiations.

Many geographers have drawn on forms of narrative mapping to perform advocacy work and to challenge dominant, exclusionary, or harmful narratives. With reference to the work being done by two inner-city community organisations in Chicago, Elwood (2006, p. 336) argues that when “narratives are advanced through GIS-based maps, they are more likely to be received as authoritative representations and can also carry tremendous emotive power in highly charged debates about social and spatial change in their community”. Along these lines, Matthews et al. (2006, p. 86) note that the use of geo-ethnography (GIS coupled with ethnography) to produce maps of low-income families “may have an immediate impact and provide a more powerful statement than a narrative account”. That being said, they caution that in order to capture families’ entire narratives, these maps must be produced in tandem with ethnographic description. On another note, Caquard and Cartwright (2014, p. 102) argue that in the face of colonialism and neo-colonialism, narrative maps can be used to define Indigenous territories in order to “reclaim dignity and sovereignty over their lands”.

Turning to our specific context, it is important to acknowledge that the Vietnam government “opposes democratic rights to participate in urban governance” (Gillespie & Nguyen, 2019, p. 978; see also Wells-Dang, 2014). As such, even illustrating the movements and spatial practices of marginalised communities in this context might seem ethically dubious given the ways that these data might be used against individuals. This is something that we have continuously reflected upon in our work, remaining highly cognizant of the possible ramifications for the vendors involved (Turner, 2013). Yet, with carefully and very transparently received informed consent from our participants, we are able to gain nuanced insights into the everyday routines, challenges, and tactics of street vendors as they attempt to build livelihoods in the face of changing state regulations and their uneven enforcement. With the construction of our narrative maps we were able to meticulously tease out patterns of restriction, competition, negotiation, and resistance across time and space. Perhaps most importantly, a number of individual vendors told us that they wanted us to tell their stories, because “no one else will listen to us” (interviews, Sapa, 2017, 2018). Vendors in Hanoi were surprised that we were keen to ‘hang out’ with them, but were gratified that we wanted to learn more about their situation, adding “please tell people” (interviews, 2019).

Can creating narrative maps result in positive changes for

marginalised communities such as street vendors attempting to make a livelihood in a socialist state? We suggest that narrative maps have the potential to bridge the divide between academic research, activists, and others able to directly influence policy. For example, a few years ago, a director of a global NGO operating in Vietnam approached one of the authors explaining that their NGO wanted to “improve the lives of street vendors in Hanoi”. After a brief discussion in which it transpired that the director knew little about the policies affecting street vendors, street vendor livelihoods, or who these individuals tend to be, the author gently suggested the director read a few key articles and then contact her again. Perhaps that was not the immediate response the director wanted to hear, or the NGO shifted priorities, but we never heard back. In any case, had we had these narrative maps on hand then, perhaps they could have provided a more accessible and immediate realisation of a range of vendor concerns to potentially inform the NGO’s aims.

Civil society is also increasingly finding its voice in Vietnam and novel approaches to push back against injustices are on the rise, such as recent protests against tree-felling in Hanoi (Gillespie & Nguyen, 2019). In principle, Decree 38/2010/ND-CP on ‘Management of Urban Space, Architecture and Landscapes’ notes that all individuals living “permanently and temporarily in urban centers may enjoy urban space” (Socialist Republic of Vietnam, 2010), yet it is unclear which specific activities are permitted in such spaces and, as we have already seen, there are restrictive policies specifically regarding street vending already in place. But it is possible that with more accessible accounts of vendor livelihoods and tactics, that NGOs and social enterprises advocating for public space access, liveable cities, and informal economy livelihoods might be able to utilise such narrative mapping resources to raise the profile of and fight for such marginalised communities; we will certainly be sending copies of our maps to such groups. Moreover, we have provided workshops on narrative mapping approaches in Vietnam, Mexico, and Canada to date, and have found that young professionals and students in architecture, design, and planning are keen to learn about and use this approach as a way to become more sensitive to how urban policies and changes in access to public space impact people’s lives. Narrative mapping therefore shows promise for challenging top-down and official narratives that tend to exclude the voices of marginalised communities and we encourage more human geographers to trial this approach and continue to push its boundaries.

Author statement

Sarah Turner conceptualised the article, prepared the first draft, and revised it. She completed fieldwork and developed Map 3. Celia Zuberec prepared literature review materials, completed fieldwork and developed Map 2, and helped with article editing. Thi-Thanh-Hien Pham developed Map 1 and provided input into article conceptualisation and editing.

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