**A Viscous Cycle: Low Motility amongst Phnom Penh’s Highly Mobile Cyclo Riders**

This paper uses the concept of viscosity, described by Doherty (2015: 264) as ‘a structural counterpart to the more agentive concept of motility in mobility studies’, to highlight how impediments to movement affect not only populations and individuals characterised by low (or no) mobility, but also highly mobile groups. Using the “cyclo” riding paratransit workers of Phnom Penh as a lens, it is suggested here that groups of this sort are trapped in high mobility cycles by a combination of structural factors and the discourse of their livelihoods.

Specifically, cyclo riders are bound to their livelihoods by three overlapping forces: the evolution of Cambodia’s paratransit system during the past 20 years leading to diminishing demand for their services; shifts in agricultural production practices; and the changing narrative meaning of the occupation in the eyes of its customers.

By combining a migration systems perspective with insights from previous work on the cultural discourse of mobility, it is argued here that this combination of pressures impels cyclo riders movement – and prevents its cessation – in such a way as to constitute the components of a circular, or mobile, viscosity.

1. **Introduction**

*Turn left, turn right, stop light
Hello! Hello! Miss! Where are you heading to?*

These lyrics, taken from *Jeas Cyclo [Cyclo Riding]*, one of the most enduring pop hits of Cambodia’s first period of independence from 1953 - 1975, attest to the supposedly unchanging nature of this uniquely Southeast Asian form of transport. As they were more than four decades ago, cyclo drivers remain a fixture of the streets of Phnom Penh, silently responding to the directions of their passengers when occupied and calling for business when vacant. Indeed, to the external observer, cyclo riding work appears to have altered little since Yol Aularong first set down his observations in song, in 1974.

However, though the essence of the work remains the same, the symbolism which undergirds it has shifted significantly, changing what it means both to hire a cyclo and to ride one for a living. Thus, whereas taking a cyclo ride was once routine amongst all strata of Phnom Penh society, the arrival of motorized transport since the mid 1990s – and to an even greater extent the influx of multiple occupancy “tuk tuk” taxis in the mid 2000s – has steadily diminished and demographically narrowed riders’ customer base. Now undertaken predominantly by older people, hiring a cyclo today has become a nostalgic, conservative, or charitable act for most.

Despite these shifts in the character of their work, though, cyclo riders remain amongst Phnom Penh’s oldest and most entrenched internal migrant labourers. Many of those working now predate even the original release of Yol Aularong’s hit, having broken from the routine of paratransit only when the Democratic Kampuchea regime forcibly evacuated Cambodia’s urban areas. As such, though employed to facilitate mobility, Phnom Penh’s cyclo riders have remained uniquely immobile, continuing to pursue an occupation that has changed and diminished significantly around them, in a country whose economic development has been labelled “miraculous” (Madhur, 2010) during the past two decades.

This adaptive continuity makes cyclo drivers in the Cambodian capital the ideal lens through which to explore immobility in a highly mobile environment. In so doing, this paper will draw closer linkages between the migration systems and mobilities literatures by utilising a mobile re-conception of structural “viscosity” to link the ‘discourse of mobility’ (Doughty and Murray, 2014) in Phnom Penh to the migration patterns of those who provide it. Thus, whereas previous conceptions of viscosity have emphasised how viscous institutional contexts reduce motility and thereby keep an actor in place, this paper highlights how discourse and structure combine to produce a “mobile viscosity” that restricts certain cyclo drivers to repeated patterns of labour movement for decades on end.

1. **Towards a Structurally Dynamic Conception of Viscosity in Mobile Livelihoods**

The term paratransit was coined in the mid 1960s ‘to describe certain types of transportation services which did not quite fit the conception of "transit" as that term was being traditionally employed’ (Orski, 1975: 329). It was an expression to denote efficiencies derived from new modes of transport in an age of (Western) suburbanization and denoted a flexible approach to the economics and logistics of urban transport, rather than a new lens on society.

As such, although the academic literature on paratransit has a fairly lengthy history, it is one which is almost wholly contained within transport geography and which remains dominated by classic studies such as Cervero (1991), Shimazaki and Rahman (1995) and Shimazaki and Rahman (1996). Whilst detailed and instructive, these studies focus upon the operational logistics of paratransit at the expense of its livelihoods dimension (Etherington and Simon, 1996), with even those studies incorporating a more driver-oriented approach (e.g. Azuma, 2000; Etherington and Simon, 1996) tending to do so in terms of its ‘socioeconomic aspects and the corresponding industry of that paratransit type’ (Li et al., 2011).

Moreover, in focusing upon these linkages specifically – i.e. those to the broader transportation infrastructure of the context in question – other key linkages have received inadequate attention. In particular, whilst the importance of labour migration flows in supplying the paratransit workforce is acknowledged, the factors which drive and sustain these systematic flows are rarely explored. Thus, whilst Etherington and Simon (1996) acknowledge the importance of regular migration cycles to many cyclo riders, the systematic nature of these arrangements remains underexplored.

This, however, is not an issue unique to paratransit. Indeed, the migration literature generally has tended to suffer from a deficit of systematic thinking (Bakewell, 2014) in the years following Mabogunje’s (1970) seminal migration systems framework. Only recently, in the wake of Bakewell and De Haas’ (Bakewell, 2014; Bakewell et al., 2011; De Haas, 2010) call for a revival of the principles that underpinned that framework has a small body of empirical work (Suckall et al., 2015; Parsons and Lawreniuk, 2015; Parsons, Lawreniuk and Pilgrim, 2014; DeWaard et al., 2012; Bakewell et al., 2012) begun to emerge which attempts to link migration flows to wider social, cultural, economic, and environmental processes in both rural and urban areas.

Migration systems research such as this has highlighted that the logistics of labour movement cannot be separated from the translocal livelihoods of the individuals, households and communities involved. Consequently, rather than being a fixed operational schema – as has often being implicitly presented – paratransit logistics and livelihoods are dynamic and multifaceted. Furthermore, as Fussell et al. (2014) explain, the key area in which migration systems thinking supersedes other frameworks is in the dynamism of its approach to structural forces. Indeed, far from being a ‘black box’ (Bakewell et al., 2012: 414) exclusive of human agency, as critics of the framework have occasionally asserted, systems thinking argues instead that ‘a migration system is defined by both structure and process’ (Fussell et al., 2014: 2). Consequently, the agency of migrants is visible in the adjustment of a system over time.

Nevertheless, although individual or group agency may be viewed in feedbacks and adaptations to a migration system, what the migration systems literature has generally failed to take full account of is how the cultural discourse of mobility (Doughty and Murray, 2014) impacts upon the form and structure of migration. This is a crucial lacuna: as Mackay (2007) demonstrates, what migration – and its various components such as remittances and social networks – mean to those engaged in it plays a key role in how it operates. Thus, ‘emotion offers us a lens through which to theorize migrant subjectivities beyond the familiar narratives of victimization and exploitation produced by more economic perspectives’ (Mackay, 2007: 175).

Discourse led perspectives on parts of the migration process are therefore valuable in elucidating broader economic trends. However, it is insufficient merely to note these factors. As various authors (e.g. Manderscheid, 2014; Merriman, 2014; D’Andrea, Ciolfi and Gray, 2011) have argued, a failure to integrate culturally normative conceptions of labour into their wider economic context has undermined their efficacy. Indeed, when culture has appeared in the migration literature, it has tended to be in the form of ‘a residual value’ (Levitt 2011: 2) in the migration process, highlighting ‘the need for a more complete theory of migration that incorporates notions of cultural dynamics as they relate to behaviour and societal outcomes’ (Curran and Saguy, 2013: 54).

As such, whilst one of the key achievements of the mobilities literature is to emphasize the (multiple) meaning(s) of movement, those studies that have paid closest attention to the cultural discourse of transport (i.e. Doughty and Murray, 2014; Farrant, 2007) have tended to do so at the expense of the systematic perspective necessary to understand urban migrant work of the sort investigated here. Consequently, the two elements which undergird mobility: the migratory structures according to which it operates and the meaning of that movement, have yet to be satisfactorily balanced. Rather, those studies which have attempted to embed mobility more fully in its social and spatial context – largely within transport geography and investigations of residential migration – suffer from a range of theoretical and methodological shortcomings’ (Manderscheid, 2014: 191).

In particular, a failure to address how the same structures produce mobility and immobility concurrently is problematic, in large part due to the complexity of the factors which engender each state (Jensen, 2011). However, the concept of viscosity – originally proposed by Sheller and Urry (2006) and subsequently developed by Doherty (2015) in combination with Kaufmann’s (2002) theory of motility – is a rare exception in this respect, highlighting as it does the role of institutional expectations in facilitating and inhibiting a person’s motility, or ability to move. As Doherty (2015: 250) argues, the concept of viscosity aims to ‘capture this variable degree of resistance or facilitation offered by structural context’, so that a high viscosity scenario – that faced by certain unmarried young women in culturally restrictive environments, for instance – appears on the same scale as that experienced by a wealthy, childless, Western businessman, for whom work, everyday leisure and periodic travel all involve high levels of mobility.

What makes Doherty’s (2015) framework especially valuable is that by conceptually separating viscosity from motility, the former becomes one factor among many in the latter, rather than the subject of a direct relationship, Thus, without ruling out ‘their complex entanglement’ (Doherty, 2015: 255), the space is created to study immobilities and mobilities as part of the same complex system . Otherwise put, that one agent may be mobilised and another immobilised by the same structure need not, according to this framework, be contradictory; rather, agents’ motility is a product of the viscosity of numerous institutions in combination.

As such, Doherty’s concept of institutional viscosity aims to be ‘a metaphorically cognate, structural counterpart to the more agentive concept of motility in mobility studies’ (Doherty, 2015: 264). However, the focus of the framework upon institutions and agents constitutes something of a limitation in the context of labour migration for two reasons. First, as Manderscheid (2014: 188) emphasizes, ‘social networks rather than solitary subjects are the origin of mobility decisions’, meaning that calculating the impact of viscosity upon a single actor fails to fully account for the motivations and constraints to which they are subject. Secondly, the “institutional” approach which underpins the framework is a discrete one: institutions are viewed as separate entities, each possessing its own viscosity and acting upon each agent independently.

By placing cultural discourse and social networks at the same analytical level as broader economic factors, the mirrored shortcomings of the migration systems and mobilities literatures may be addressed. Specifically, the lack of attention paid to the cultural discourse of movement by the first framework, and the failure to extrapolate the systematic relevance of meaning on the part of the other, may be addressed simultaneously via the application of Doherty’s (2015) viscosity framework to a more fluid, network oriented, concept of migratory institutions. Doing so allows agent and community centred perspectives on the meaning of movement to be incorporated into a broader, multi-scalar, and dynamic systematic framework. Otherwise put, it brings gender norms and clock-in times; rural labour sharing and mobile telephony, within the same taxonomic stratum.

As such, the aims of this paper are twofold. First, it seeks to apply the conception of structural viscosity outlined by Doherty (2015), and Sheller and Urry (2006), to highly mobile individuals and groups, therein demonstrating that a lack of motility may apply equally well to those engaged in frequent movement, as those who are static. Secondly, the paper will attempt to draw closer theoretical linkages between the mobilities and migration systems literatures by using the lens of cyclo riding – as a migrant occupation characterised by an unusual longevity of work – to demonstrate how the changing meaning of transport and movement may impact upon the structural characteristics and logistics of a migration system and vice versa.

1. **Methods**

The research upon which this paper is based was conducted in Phnom Penh over a two month period between June and August 2015 and incorporated a total of 51 interviews with cyclo riders, 10 interviews with former cyclo riders who now worked in motorized paratransit – 5 as *motodups* [motorcycle taxis] and 5 as *tuk tuks* [multiple occupancy motorized carriages] – and a further 5 interviews with informants related to the cyclo industry.[[1]](#endnote-1) During the research timeframe, the interview process was based around three of Phnom Penh’s largest permanent markets: Psar Kandal (Kandal Market)[[2]](#endnote-2), Psar Chas (Old Market) and Psar Orussey (Bamboo Market). These markets were identified in conversation with local key informants prior to the research process as the key locations in which to make contact with cyclo drivers, as they use these particular markets as a bases from which to collect customers.

Due to the precarity of many cyclo riders’ livelihoods, in combination with frequent crackdowns upon informal economy workers working in public spaces around markets (Springer, forthcoming), several of the cyclo riding population approached for interview were initially reluctant to speak with the research team. In order that the data not be skewed by differential attitudes towards consenting to interview – i.e. in order that the most vulnerable riders did not self exclude – a daily snowball sampling method, as favoured by Faugier and Sargeant (1997) and Fleischer (1995), was employed, whereby each informant would be asked to introduce the research team to a further rider following their interview. As well as helping to assuage ethical concerns over interviewing vulnerable populations, this process has been shown to add significant value to research, especially with respect to ‘gaining access to the target population’, which is ‘a preliminary practical and ethical problem in any interview-based study’ due to the potential for overburdening informants (Winchester, 1996: 122).

Moreover, in an effort to further minimise such risks, interviews were conducted in Khmer by a two person team, one of whom is a native Khmer speaker and the other of whom is proficient in the language. This approach was adopted, following Hoggart et al. (2002), to maximise the benefits of using field assistants (detailed local knowledge) whilst minimising the downsides of doing so (unmatched interpretations, mistranslations, and consequences for rapport building). Moreover, in seeking to provide as comfortable and secure an interview environment as possible, cyclo riding informants were interviewed close to their regular working spots, either beside their cyclo, at a nearby stall, or outside one of the nearby cafés or restaurants surrounding the market in question. Interviews – lasting between 20 and 40 minutes depending on the loquacity of the informant and their need to return to work – were semi-structured and largely qualitative in nature. However, in keeping with the mixed methodology previously utilised by Parsons and Lawreniuk (2016a) and Etherington and Simon (1996), a small basket of key quantitative indicators were inserted into each interview, in order to provide broad data on livelihoods, demography and migration patterns which would be otherwise unavailable.

As such, though tailored to the specific context of the research, the methodology employed herein carried inevitable issues and limitations. Firstly, the small number of cyclo riders present at a given market on a given day reduced the overall number of interviews achievable within the research timeframe, thereby limiting the accuracy of the quantitative data. Secondly, the use of a snowball sampling methodology, though useful (indeed, essential in many circumstances) introduces potential issues of bias in terms of sampling. However, neither of these issues was deemed to pose a major threat to the quantitative or qualitative data due to the relatively small number of cyclo riders – around 500 according to most estimates (Sothear and Robinson, 2014) – remaining in Phnom Penh. Combined with a snowball sampling method which restarted from a new point each day, this penetration rate, of roughly 1 in 10 of the total population, was deemed sufficient to allay concerns regarding the representative nature of the sample. For reference, summary tables of the key quantitative data collected during this process may be seen in Appendix A.

As the main body of research, centred on cyclo riders themselves, drew to a close, the focus of investigation shifted towards the institutions that support and facilitate cyclo riding. These were not pre-identified, but were discerned via interviews with riders, so that the specific institutions approached were those used by the riders in this sample. This linked methodology facilitated a degree of triangulation between cyclo riding informants and other actors involved in the cyclo riding occupation, thereby raising the confidence that may be placed in the quantitative data obtained by the study. Moreover, it admitted an additional viewpoint on the livelihoods of those involved, generating a broad perspective on the place of cyclo riding within the wider urban and migrant economy.

As such, the methodology upon which this study is grounded responds to Manderscheid’s (2014) and Merriman’s (2014) call to partner methodological innovation with more traditional methods. Specifically, it has combined approaches closely tailored to the context and issues in question, as expressed in the snowball sampling approach and the incorporation of key quantitative indicators into primarily qualitative, semi-structured interviews – both of which were intended to supersede the difficulties inherent in researching a cyclically migrating, vulnerable and dispersed population – with qualitative and quantitative data analysis closely related to the core practices of human geography (Hoggart et al., 2002). In this way, it aims also to form part of the growing body of methodological innovation associated with the mobilities paradigm and thereby to further explore the conceptual linkages between movement and meaning which lie at the centre of the mobilities turn (Sheller and Urry, 2006).

1. **A Nation in Flux: Cambodia Since 1960**

Any worker spending decades in a single occupation is likely to witness significant change, but to have spent – as has one member of this sample – 50 years ferrying passengers through the streets of Phnom Penh, is to have witnessed a capital city rising and falling in fortune to an almost unparalleled degree. Indeed, during Cambodia’s brief first period of independence, following 90 years of French rule, the vibrant, cosmopolitan and sophisticated city of Phnom Penh commanded such respect in the region that the neighbouring city state of Singapore, itself only recently emerging into independence following more than a century as part of the British Empire, reportedly took the Cambodian capital as its architectural template, developing the famous “city in a garden” concept in response to its northern counterpart.

As Singapore prepared for its spectacular economic take off in the 1970s, however, Cambodia was preparing to enter a period of political turmoil which would culminate in the Khmer Rouge’s successful siege of Phnom Penh.

The four years of agrarian communism that followed – the only interruption in cyclo rider’s unbroken history of paratransit – need little revision, but the subsequent decade of economic and institutional stagnation under the Vietnamese controlled puppet state, the People’s Republic of Kampuchea (Pellini, 2004; Kiljunen, 1984) is less well known. Such was the political-economic inertia during a decade pervasively characterised by cronyism and patrimony (Jacobsen and Stuart-Fox, 2013), that only in the wake of one of the most extensive UN mandates in history, undertaken from 1989 to 1991, were democratic elections made possible once again. During the same period, wide ranging economic liberalization transformed the economy to such an extent that it now became one of the most open in Asia (TRAC, 2013), creating the platform for the untrammelled economic expansion that would make Cambodia the 15th fastest growing country in the world over the first decade of the new millennium (World Bank, 2013).

This spectacular boom has been built on migration of labour. Not only has the garment industry expanded to include an estimated 700,000 – primarily migrant – employees (ILO, 2015), but a potentially equal number currently work in complementary occupations such as construction, petty trade and transportation (Parsons et al., 2014; EIC, 2007). These millions of mobile workers have transformed Phnom Penh, a city described in 1998 as a member of those “fourth world” stragglers characterised by complete ‘structural irrelevance’ to the global economy (Shatkin, 1998: 378), into the vanguard of Cambodia’s “development miracle” (Madhur, 2013: 1) only fifteen years later. Today, an estimated 2 million Cambodians are migrants, either domestically or abroad (NIS, 2010)

As a result of their efforts, the former “Pearl of Asia” is beginning to regain something of its former status, via economic, political and social upheavals of almost unimaginable scale. That cyclo riding as a practice has survived such changes is of itself remarkable. However, that several of those riders from Phnom Penh’s first era of independence are still undertaking the same roles after five decades of unprecedented change requires specific explanation. What follows shall outline the conditions which have underpinned their exceptional occupational entrenchment.

**5.1 Linking Mobility and Meaning in a Changing City**

As the above has sought to highlight, it is difficult to conceive of a city which has undergone such sweepingly radical changes since the earliest members of this study’s sample first journeyed from the provinces to Phnom Penh to begin riding cyclos in the 1960s and 1970s. Although few wished to speak about “the war” as they referred to the Democratic Kampuchea period, older riders universally acknowledged a powerful process of change transforming their environment in its aftermath, from one in which ‘there was a lot of free land and forests, the roads were bad and it was difficult to work…’ (Sim, 06/07/2015) to one in which skyscrapers pepper the skyline, and hundreds of thousands of motorbikes flank a growing number of large imported cars. In contrast to twenty – or even ten – years past, the infrastructure of the city has been completely rejuvenated, with almost all of Phnom Penh’s centrally located roads now tarmaced and barely fewer lacking street lights. As one rider, who began working as part of the capital’s paratransit network in 1991, commented: ‘the city has changed so much since I arrived that I don’t recognise it any more. The roads, houses, hospitals, it is a lot better than before’ (Ton, 02/07/2015).

However, this aesthetic and practical renovation has left little mark on the livelihoods of cyclo riders. Rather, as several noted, the rising cost of living has not been matched by the fares that they themselves can charge, rendering daily life in the economically vibrant capital of today, where ‘everything is better, but expensive’ (Tok, 02/07/2015), more of a struggle than during the stagnation and poverty of the 1980s. For instance:

‘Phnom Penh nowadays is more difficult to do business [as a cyclo rider]. In the past, I was able to earn only a little money, but could save more of that. Now I can make 10,000-15,000 riel [$2.50 to $3.75] per day but can’t save anything’ (Chrey Chane, 06/07/2015).

Consequently, the internal narrative of cyclo riding is one of stagnation. Riders complain that they have been bypassed by the capital’s development, unable to share in the huge influx of wealth seen during the previous two decades. Static wages amongst key customer bases – ‘in particular public sector workers’ who cannot afford to pay higher fares from the same income (Parn, 06/07/2015) – and the availability of alternative means of transport have held fare inflation to a far lower rate than urban prices. As one rider stated, for instance: ‘I came here in 1980, after Pol Pot and I’ve been doing this [work] constantly ever since. Phnom Penh has changed a lot in that time, but for me it hasn’t changed. The rich people here become richer, but I am still poor’ (Chroot, 30/06/2015). Indeed, this view permeates cyclo drivers’ discourse on national development, which is perceived cynically and through the lens of a diminishing, rather than improving livelihood. ‘Development’, they argue, ‘is only for the rich. For the poor, nothing changes’ (Tol, 01/07/2015).

Nevertheless, a comparative analysis of quantitative data reveal a picture of subtle but significant change over the 20 years since Etherington and Simon’s (1996) study. At that time, for instance, cyclo riders were split almost evenly between renting and owning their vehicle and whilst some four fifths of cyclo riders were described as migrants, the sub-set of riders resident in Phnom Penh displayed markedly different characteristics to the remainder, with 68% of Phnom Penh resident riders owning their cyclo, compared with only 9% who did not possess a home in the capital.

By contrast, the 2015 sample indicates a cyclo riding population skewed even further towards non-resident riders. 94% of cyclo riders were circular migrants, with 94% also reporting that they rented – rather than owned – their cyclo. Notably, these attributes were not related: the three riders resident in Phnom Penh were themselves all renters, explaining how ‘hard [it is] to find a place to store it when I go back to farm’ (Torn, 03/07/2015). Consequently, all but a handful preferred to rent from one of the city’s cyclo rental centres, where the daily hire charge for a vehicle is 2000 to 2500 riel [$0.50 to $0.63] rising to 4000 riel [$1] if the rider wishes to accompany the cyclo into storage at night, thereby ensuring a roof for the evening and the security of a locked gate.

Although this constituted by far more the most common form of rented accommodation for riders, the majority of the sample – some 57% compared with only 29% – opted not to take up the option of the 1500 riel [$0.37] surcharge, preferring instead to park their vehicles by the roadside, alongside ‘four or five [other] cyclos’ (Wan Jamraan, 30/06/2015) for mutual protection. Indeed, although Simon and Etherington’s (1996) study does not mention the sleeping arrangements of their informants, huddles of cyclos parked in close proximity to each other at night time, often under the awning of a shop or another form of protruding cover, are one of the defining features of the industry in today’s Phnom Penh.

The increasing dominance of short term migrants undertaking cyclo riding work with rented vehicles and minimal other urban outgoings is both a factor in, and result of, changes to the position of cyclo riding within the landscape of Phnom Penh’s transportation since Etherington and Simon (1996) undertook their research. In particular, the perception that hiring a cyclo is old fashioned has transformed the base of customers who use them and is frequently bemoaned – or merely noted with resignation – by riders. As one stated, for instance: ‘nowadays, business is getting a bit difficult, because it is now modern times and people prefer modern things like motorbikes. Many of them even have their own’ (Long Visna, 03/07/2015). Similarly:

‘I don’t like this work, but I don’t know what else to do. It uses a lot of energy and it’s old fashioned. People in Phnom Penh have no interest in old fashioned things any more. They don’t want an old fashioned cyclo, but a modern tuk tuk or moto’ (Sarn, 03/07/2015).

This shift in narrative is the result of both longer and shorter term processes. However, whilst several riders asserted that ‘things changed a lot two years ago’ (Hiem Nham, 06/07/2015), or that ‘things got worse around 2011 to 2012 [when] people started taking *tuk tuks*’ in much greater numbers (Hok Mao, 30/06/2015), most agreed that this formed part of a far broader historical trend. Those riders who had been working for two decades or longer held the view that their livelihoods had been in steady decline ‘since 1995 [when] the number of customers was growing all the time, to more recently when ‘there are fewer and fewer customers’ (Chrouem, 03/07/2015). Morever, some of those riders with longer histories in the occupation traced the decline of the industry back even further, to ‘the 1980s, [which] was the best time to be a rider, because there were many cyclos, but many customers also’ (Wan, 06/07/2015).

Today, by contrast, the customer base for cyclo riders ‘has declined from 70% to 10% of people’ (Hiem Nham, 06/07/2015), as the availability of motorized alternatives has pushed cyclo riding to the margins of paratransit. Whereas cyclo customers were once unrestricted by demography, today ‘it is just the old’ who hire them (Tieng Tong Cyclo Rental Owner, 08/07/2015). Furthermore, riders describe a significant feminization of their customers over time, stating that ‘men never take cyclos’ any more (Sok Li, 06/07/2015). Rather, it is ‘old ladies’, for the most part (Long Visna, 03/07/2015), who choose to take this less efficient mode of transport, primarily because they view its lower speed and greater stability as safer than the alternatives. Indeed, as one such rider commented: people who choose [to hire] cyclos are afraid of traffic accidents; *motodups* go very fast, for instance, even though they are cheaper’ (03/07/2015).

Fears over safety in a country in which around 2000 people are killed on the roads each year (IRTAD, 2014) are understandable. However, as several riders additionally suggested, the motivations of many ongoing cyclo customers extend beyond personal concerns. As they argue, today’s passengers ‘pity the cyclo riders’ (Sim, 06/07/2015) and want to ‘support this business’ (Owner of Bac Touc Cyclo Rental Shop, 08/07/2015) by providing custom where possible. Indeed, as the owner of a cyclo rental shop explained ‘now things are a bit difficult for [cyclo riders] because only a few people want to take a cyclo. Some people pity them, so they hire a cyclo [by themselves], but other riders say “please take us, we are very poor” and then people give them tips too.’ (Tieng Tong Cyclo Rental Owner, 08/07/2015).

As such, whereas hiring a cyclo was once merely a practical decision, narratives of nostalgia, charity and fear, have become increasingly important. Adopted increasingly for “cyclo tours” of the old town aimed at foreign tourists – albeit on a small enough scale that none of the sample had either been employed by one, or viewed them as a reliable source of income – this traditional mode of transport has become a value laden symbol of Phnom Penh’s past. Notably, this has manifested not only those who use them, but the ways in which they are used on an everyday basis: cyclo riders today note that the patterns of their journeys have shifted to reflect their diminishing customer base, becoming more and more tightly centred around a handful of the capital’s oldest markets and involving trips of shortening duration. Indeed, whereas customers previously ‘would go sometimes far, sometimes near, now they only want to go nearby’ (Soon, 06/07/2015), as the increasingly tightly defined demography of cyclo customers has led in turn to a concentration in the patterns of mobility associated with cyclo riding.

In this way, the cultural discourse of cyclo riding has evolved in combination with new forms of mobility in the city. Whereas it previously involved the provision of service to a high proportion of the population and a large segment of Phnom Penh’s transit and transportation needs as a whole, today it caters for only a fraction of the needs of a small and ageing sub-section of the capital’s population. Moreover, this transition to a specialist service is both a factor and a function of the changing logistics of the industry. As riders rely more and more on an ageing customer base, the “old fashioned” narrative of their occupation is entrenched by the patterns of their movement, thereby anchoring cyclos to historic central markets, far from the dynamic outer regions of the city. Their irrelevance modern transport and modern lives becomes, in consequence, self fulfilling.

**5.2 Rice and the Road: A Migration Systems Perspective on Rider Continuity**

In view of the shifting narrative of their work, it emerges as all the more noteworthy that cyclo riders possess, on average, the longest mono-occupational histories of any migrant group. The results of this study suggest that cyclo riders have spent on average 18.7 years in the same line of work, a figure dwarfing the longevity of any other migrant sector. Indeed, as shown in table 1, the total migratory duration of workers currently in other occupations equates to only three years on average. Whilst the comparative data are not directly analogous – relating as they do to duration of residence in Phnom Penh rather than duration within a single occupation – they offer what is in fact an overestimate in most cases, as most migrants undertake several jobs during their time in the city (Parsons and Lawreniuk, forthcoming). Moreover, table 1 additionally highlights a trend of considerable relevance herein: migrations to the capital are declining in duration, as the rising cost of urban living diminishes the ability of migrants to save and invest their incomes in order to lay down urban roots.

 *Table 1 Mean Duration of Residence in Phnom Penh by Occupation (Parsons and Lawreniuk, 2016)*

Thus, in a migratory environment characterised by increasing instability and change (as well as opportunity), cyclo riders have remained far more stable than their peers, even as their job has shifted in character dramatically. Some, such as the owner of a cyclo rental business, argue that this is simply habit; that ‘once you have found a cool tree, you don’t want to move to another one’ (Cyclo Conservation Centre Administrator, 08/07/2015). However, whilst conservatism was cited by a handful of non-riding informants as the reason for this unusual occupational commitment, it is insufficient grounds for the peculiar distinction cyclo riders show in this respect.

Moreover, riders themselves disputed the idea that their “tree” was especially cool. A high proportion complained about the conditions of their job, citing the physical toll of ‘waking up early and requiring strength all day’ (Pear, 02/07/2015) and often citing exhaustion and join pain as reasons they ‘really want to change’ (Pear, 02/07/2015). Many claimed simply to endure the job due to an ignorance of suitable alternative employment:

‘I sold my house and land in 1996 to bring all my family here [to Phnom Penh]; I wanted my children to study….[but]…I think it was the wrong decision. I thought I would come to Phnom Penh for a better life and to make a good living. But things are worse for me. I sold my land and now I have nothing…I don’t like cyclo work at all, but for my family and children I have to do it. It’s hard though; it takes a lot of strength and all the cycling has damaged my knee. I want to change, but I’m afraid: right now I work and it is just enough to help the family survive. If I change, I don’t know if I could help them survive’ (Hear, 03/07/2015)

Whilst some lacked a clear vision of occupational alternatives, though, others were aware of both preferable opportunities and the restrictions which prevent them from grasping them. In particular, the inability to invest in future earnings by upgrading to a motorbike or *tuk tuk* was attributed to long term financial commitments, as opposed to a lack of income. For instance, having many children, especially of school age, was viewed as a major constraint to occupational movement and was often put forward as the reason that some riders are able to progress to alternative occupations, whilst others remain static. In the words of one rider:

‘In the last four years, my income has reduced because there are now so many tuk tuks and people [also] prefer to take motodops if they live far away. I have no plans to enter another business though; I’ll just keep doing this. I don’t have the money to become a motodop or a tuk tuk driver, but I have many friends who do. They can save money because they spend less. Their family is not like my family because I have four children studying’ (Chet Mao, 31/06/2015).

Moreover, in addition to outgoings associated with the nuclear family, cyclo riders highlighted the key role of the rural household in helping some of their number to upgrade their livelihoods. As drivers reported, ‘the ones who are able to change to moto or tuk tuk driving’ are those who ‘have family in the countryside who can sell cows to combine with their [own] savings’ (Hok Mao, 30/06/2015), a perspective generally confirmed by former cyclo riders who had successfully upgraded to motorised work. Even those who claimed that they ‘didn’t borrow money from anybody’ (Pan, 08/07/2015) admitted that they had obtained a large part of the necessary sum from the sale of family livestock: either ‘cows’ (Pan, 08/07/2015), or ‘some pigs’ (Basan, 08/07/2015) depending on the endowments of their household. The majority, however, did borrow money to fund the transition from cyclo to motorbike or tuk tuk, albeit in combination with savings of their own. As one such converted driver explained, for instance:

‘I came to Phnom Penh in 2002. When I first arrived, I was a construction worker. I changed to be a cyclo rider because I found it difficult to do construction work and my brother was a cyclo rider, so I wanted to do that instead…I saved some money by myself to buy my motorbike, but the rest I got from my mother. In total it was $350, just for an old moto. Motorcycle taxi riding is better than cyclo riding [,though,] as it is less exhausting’ (Kat, 08/07/2015).

Like Kat, who at the age of 32 is some 20 years younger than the mean across the sample, most of those who have converted from cyclo riding to motorcycle taxi riding – as well as those who retain the intention to do so – are relatively young. However, to attribute this occupational mobility merely to the dynamism of youth, though often suggested, would be misleading and consequently tends to be nuanced even by those who propound it. Thus, although it may be commonly heard that cyclo riders ‘are old already and don’t want to change’ (Wat On, Cyclo Conservation Centre, 08/07/2015), it is recognised also that ‘if people have a lot of land then they have opportunities to do other things: selling some of their land, renting something [such as farming machinery to improve yield], or even changing to being a motodop’ (Wat On, Cyclo Conservation Centre, 08/07/2015).

Indeed, far more so than the idea of lifecycle inertia, the idea that progression or otherwise from cyclo riding work is linked in complex ways to rural endowments stands up to scrutiny in light of the quantitative data, which indicated a mean rural landholding of 0.72 Ha per cyclo rider’s household and 1.01 Ha per motorbike or tuk tuk driver’s household. Moreover, as accounts provided by cyclo riders suggest, the availability either of saleable assets or interest free loans from the household constitutes a key means by which paratransit workers are able to convert to higher yield livelihoods. Formal credit, likewise, emerged as significant in this respect: half of the 10 converted cyclo riders interviewed during the course of this study had taken a loan from an organisation in order to fund their purchase. Given the extent to which loans provided by credit organizations in Cambodia are contingent on the provision of a land title (Milne, 2013), these differences in formal loan uptake constitute further support for the rural-urban linkages highlighted by riders and drivers alike.

Nevertheless, to say that cyclo riders are less well off, in rural terms, than their motorized counterparts is not to say that it is poverty that traps them in their work. Although the mean land area possessed by cyclo riders is relatively small compared to *motodop* and *tuk tuk* riders, it is not especially diminutive in terms of Cambodia as a whole. High levels of landlessness – estimated at 40% of all households in 2009 (GTZ, 2009) – and an ongoing process of land concentration whereby ‘some 20 - 30% of the country‘s land has passed into the hands of less than 1% of the population’ (USAID, 2011: 5) means that median land distributions amount to considerably less than 1 Ha per household. Thus, with 0.72 Ha on average, the data have cyclo riders residing comfortably in the centre of the third sextile of arable land holdings per household (World Bank, 2013).

Consequently, rather than viewing cyclo work as motivated by an absence of rural assets, interviews with riders and those associated with the industry frequently returned to the theme of farming and the synergistic role that it played alongside cyclo riding in their livelihoods. As one rider of 34 years standing explained, for instance: ‘I don’t like working as a cyclo, but it’s my job. I must keep doing it…because I don’t know how to do anything else and this is the only thing that will allow me to keep doing my rice farm’ (Tok, 03/07/2015).

Moreover, whilst general linkages to the annual farming cycle were repeatedly highlighted by informants, one theme that emerges prominently is the transition in farming practices from the traditional transplanting method – wherein rice seeds are raised for a period in a “nursery” plot before being moved and replanted over a larger area in order to allow the crop to mature – to the increasingly common broadcasting method – in which seeds are planted directly into the plot intended for their maturation – thereby reducing labour costs in favour of a lower yield and a greater need for fertilizer. As cyclo riders commented, this transition from a system ‘which needs more fertilizer and chemicals but less labour’ (Wan You, 07/07/2015) has lain at the core of their ongoing engagement in paratransit because:

‘Now we have changed the way we farm. Beforehand we transplanted [rice] but this requires a lot of people to help and nowadays many people work in the garment factories so now people generally broadcast. However, broadcasting needs a lot of fertilizer and other things, so I have to work [here] to earn money’ (Kem Sao Mao, 07/07/2015).

The impact of these changes to rural labour distribution are not exaggerated: taking the hundreds of thousands of Cambodians working abroad, either legally or illegally, it may reasonably be estimated that 1 in 3 working age Cambodians is currently a migrant (NIS, 2010). Furthermore, alongside this diminishing agricultural labour force, the environment in which rice farming takes place is changing. The rainfall patterns on which Cambodia’s staple rain fed paddy rice depends have shifted considerably in recent years, producing floods and droughts with increasing regularity (Oeur et al., 2012) and severely reducing the viability of smallholder rice production throughout the Kingdom (Bylander, 2013; MoE and BBC, 2011; Norm, 2009). In particular, the longer timeframes required by transplanting practices have come to seem increasingly problematic to rice growers, as the growing irregularity of rainfall during the wet season necessitates rapid reactions to changes in the weather. Facing these conditions, the logistics speak for themselves: whereas ‘manual rice transplanting requires about 20 to 30 work-days/ha, broadcasting needs only 2 work-days/ha’ (Liese et al., 2014). Retaining the former system has simply become too costly and risky to countenance.

Viewed thus, rice farmers have little choice but to find the necessary capital for fertilizer and other relevant inputs and to shift their agricultural practices, despite the fact that rural opportunities for income generation are increasingly scarce as a result of land concentration (World Bank, 2013) and agricultural mechanisation (IBRD and World Bank, 2015). Indeed, though better paid than in the past – agricultural wages have almost tripled since 2005 (IBRD and World Bank, 2015) – diminishing demand for rural labour means that smallholders who wish to continue doing agriculture must seek the income they need elsewhere. As one rider summarized: ‘in the last few years, many people have problems with farming, so they come to do this work’ (Ly Lien Her, 06/07/2015). In other words, they must migrate, or lose their ability to farm entirely.

In this way, the unusual longevity of cyclo riding careers may not be fully understood without reference to the wider Cambodian migration system. Urban processes of technological and economic development that have shifted the nature of Phnom Penh’s paratransit cannot be separated from the vast migrations to factories and construction sites both domestically and abroad that have characterised recent decades. Nor is cyclo riders’ occupational persistence intelligible without reference to the changing climate that has forced widespread adaptations of traditional farming practices in rural areas. The decades long occupational entrenchment of some riders within a rapidly changing livelihood requires a confluence of structural factors working in combination. What renders these disparate influences cogent is the slowly shifting ‘cultural milieu’ (Low, 1992: 165) of the industry that, as shown below, combines with these broad structures to produce mobile viscosity.

**5.3 Mobile Viscosity: Linking the Meaning and Structure of Repeated Movement**

The above account highlights how cyclo riding is inseparable from a range of broad structural factors linked to the economy, ecology, and society in which it takes place. However, as those data seek also to demonstrate, cyclo riders do not respond to these factors in the same way as those occupied in other sectors. Rather, they are at once typical migrants and outliers, exhibiting almost all of the characteristics of migrants engaged in other sectors yet, as shown in table 2, existing at the statistical margins of the Cambodian migration system. Not only are cyclo riders the oldest of the major migrant groups who populate Phnom Penh, for instance, but they are on average older even than the capital’s migrant begging community, whose ability to generate income is strongly linked to their age (Parsons and Lawreniuk, 2015). Moreover, the rate at which cyclo riders repeatedly migrate between Phnom Penh and their home village is, at just over a month, higher than any group other than garbage workers.

*Table 2. Characteristics of Cyclo Riders Compared with Other Migrant Groups[[3]](#endnote-3)*

The combination of this rapid cyclical migration pattern with a mean 18.7 year occupational duration suggests that cyclo riders have – to offer a very rough estimate – each undertaken a mean 600 migration cycles. This figure dwarfs that of any other group, yet cyclo riders do not bear this constant movement lightly. A high proportion of those interviewed complained of health problems, in particular ‘eye conditions’ and persistent joint pain, causing them to spend their working days in significant discomfort in many cases. As one rider of 70 explained:

‘I will continue for maybe a year and then stop, because now I’m getting older and older and weaker every day. After that, I will go home to my home village because my eyes are not good [any more] and I can’t see clearly…I dislike this work because it hurts my legs every day, but I have no other option, so I have to do it’ (Long Visna, 07/07/2015)

Complaints such as these constitute the refrains within a broader narrative of compulsion that highlights the need to move beyond a purely systematic framework – by default economically focussed, if inclusive of non-monetary factors – towards one in which narrative and meaning figure more centrally. Indeed, for many riders, it is the burden of stigma, rather than ill health or weakness, which weighs heaviest. Though never well paid, cyclo riders have until recently been at least a part of the ordinary fabric of the city; part of the ebb and flow of commerce, change and development; and of use to the majority of a rider’s fellow urbanites. Following the influx of motorized transport, however, the role of the cyclo within the schema of the city’s transport has changed: no longer merely an ordinary job, cyclo riding today is a ‘low class’ job (Khaem, 07/07/2015), whose customers are motivated not by practicality, but conservative habits and traditionalism.

Via this gradual process of marginalization, the same riders, embarking on largely the same migration cycles, have steadily sunk through the city’s strata of respectability to the point that charity and the benevolence of strangers have begun to assume an important place in the logistics of their livelihoods. Many of those who hire cyclos do so ‘because they pity [the riders]’ (Bac Touc Cyclo Shop, 08/07/2015), but even those not inclined to hire one appear disposed to offer aid where possible. Several riders reported small charitable acts which acted as a counterbalance to a hostile urban environment, such as being allowed ‘to sleep along the street near the police station because the police pity me’ (Khaem, 07/07/2015). Similarly:

‘We used to wait at the entrance to the market, but then the market expanded. It got too busy, so they made the cyclo riders move. They said we were a waste of space, but luckily the owner [of a shop] opposite took pity on us and said that we could wait there [for customers]’ (Oun Sareoun, 01/07/2015)

In this way, the transition from mainstream self-employment to the reception of alms has involved a shift not only in the meaning of the work, but its logistics also. Indeed, these two processes have evolved in a co-constitutive manner: as cyclo riders become less and less necessary to modern commerce, the perceived rectitude of their place at its centre diminishes and they are pushed to the physical and cultural margins of the market. At the same time, and in mirrored fashion, the realm of their relevance decreases amidst an expanding city. Consequently, whereas ‘in the past, every market used to have cyclos, now it is just a few’ (Kem Sao Mao, 07/07/2015), located in a diminishing sector of the old town and firmly within the city limits as they stood in the 1970s.

Thus, with journey distances declining alongside customers and pick-up points, cyclos are tracing an inward facing spiral, constrained by progressive structural irrelevance, but sustained by an enduring cultural value which is underscored by the historical nature of the machines themselves. As the owner and renter of several dozen cyclos explained:

‘When we opened we got our stock of cyclos by buying them from wherever we could; some from other shops, others from riders who owned them and wanted to sell. We had only a few then, but we built up our stock…[they] were all made in Cambodia, but there is no-one making them anymore. They were made by the French’ (Bac Touc Cycle Shop, 08/07/2015)

As such, cyclo riding as an occupation is sustained at its urban end by deeply entrenched cultural and historical associations. At the same time, however, the regular, tightly defined, cycles by which riders transition from rural to urban and back are sustained – exceptionally so, as the statistics above indicate – by distinct cultural forces. Cyclo riders not only change their location when they migrate, but their identity. In the city, they are inhabitants of a lowly urban occupation, downtrodden and deserving of charity; in the countryside, they are farmers amongst fellow farmers. The determination of many cyclo riders to sustain this stake in traditional agriculture underpins their ability to endure the changes and degradations their occupation has suffered over the past two decades and more.

In this way, the economic and temporal logistics of farming, together with the enduring cultural value of both rice cultivation and cyclo riding in Cambodia combine to induce cyclo riders’ participation in decades of systematic movement. Indeed, the interaction between the meaning and cultural value of their migration cannot be separated at either the urban or rural extremes of the system. Rather, each feeds back to the other in circular fashion: the enduring value of rice farming drives a system whose urban logistics have shifted in response to the changing cultural value of the cyclo, generating stigma and exclusion conducive to short term migration cycles rather than long term commitment to the occupation.

The entanglement of these two dimensions of movement indicates that migration systems frameworks must allow to a greater extent for the reflexivity induced by changes in the meaning of mobility patterns, as well as how mobilities frameworks, conversely, may benefit from taking greater account of the broader systematic influences upon the meanings of migration and transportation. Thus, the case of cyclo riding suggests that only a combined approach can account for the complexity and fluidity that govern both the narrative and structure of movement: structure and symbolism appear to drive each other here.

Moreover, the use of such a framework indicates a second point of interest: despite their ongoing fluctuation, such symbolically sensitive systems are capable of producing stasis and repetition in addition to change and variation. Indeed, such is the induction of cyclo riders’ movement that it almost never allows for a change of course. Rather, they work ‘one day and then one day more, until I can do it no longer because I have no strength left’ (Oun Sarouen, 01/07/2015).Ultimately, as a second rider related, drawing upon over half a century of experience, that strength is all that keeps them alive:

‘Of the friends who have worked with me, some have died and some have retired, but nobody supports me, so I have to carry on…This work allows us only to survive. If I get sick, there is no money to pay for treatment, so I will die.’ (Long Visna, 06/07/2015)

As such, though highly mobile, cyclo riders have minimal freedom of movement. They are structurally induced to participate in continued cycles of work, rest, and agricultural labour for decades on end, in such a way that alternative paths are closed. Indeed, this lack of alternative paths is a key factor in describing the behaviour of cyclo riders as viscous, rather than merely induced. As Doherty (2015: 254) explains, it is ‘the degree of resistance or enabling offered by structures to mobility projects’ which constitutes structural viscosity and despite their work centring on transport at multiple scales, cyclo riders’ reluctant persistence within a degrading livelihood is testament to the difficulty of escaping the patterns of movement they have habitually occupied.

Indeed, it is difficulty, as opposed to impossibility, that is key here. Rather than being an impenetrable barrier, ‘moving through a high viscosity context would be like swimming through treacle – vexed, stressful and effortful’ (Doherty, 2015:254), whereas continuation along the same path presents few obstacles, if also little opportunity. Many riders can conceive of other options, even viable ones, but fear the risk they might entail to their family and rural livelihoods; they are ‘afraid to change’ (Hear, 03/07/2015) because instigating risk in the urban aspect of their livelihood brings with it concomitant risks to its rural component.

Thus, given that – amidst a discourse characterised by stigma and declining relevance – the priority of most riders is to sustain their rural agricultural livelihoods, their socio-economic motility is limited by the need to retain a very specific type of agriculturally linked mobility. Factory work is therefore impossible, because riders ‘can’t come and go there’ as they need to (Hier, 30/06/2015); construction work – even for those still young enough to do it – retains similar disadvantages. Consequently, in order to retain what matters to them, cyclo riders in this position must continue to repeat the same pattern of migration, rejecting alternatives even as age diminishes their number and viability. As the city develops around them, they ‘do not share in most of this change and development’ (Torn, 03/07/2015). Instead, the structural viscosity to which they are subject leaves them ‘no choice’ (Nop, 02/07/2015) but to continue to cycle, within, to and from the city, until their ‘health won’t allow them to do it any more’ (Nop, 02/07/2015).

1. **Conclusion**

Cyclo riders in today’s Phnom Penh occupy an anomalous position. They are both part of the capital’s migration system and apart from it; they exhibit all of the characteristics of other migrant groups and yet in almost every respect they are outliers. Their age, duration of occupation and the rapidity with which they transfer between rural and urban locales dwarf most other forms of migration individually, but together combine to produce a unique feat of endurance. Theirs is one of the few forms of contemporary rural-urban migration to predate the UNTAC period and its far reaching program of economic liberalization, to say nothing of the horrors of Democratic Kampuchea. Throughout a period of unprecedented change in their country’s history, their mobility has remained stubbornly consistent.

The viscosity that prevents such riders either from changing or ceasing their constant migratory movement is borne from a combination of structural and symbolic factors. Shifts in rural labour distribution, borne of both economic and ecological factors, have resulted in widespread adaptations to agricultural production, which have in turn imbued urban work with a growing structural necessity to rural livelihoods. At the same time, the changing cultural discourse surrounding cyclo riding has shifted the meaning and logistics of the work, driving cyclo riders out of the mainstream of urban transport and into a marginal realm sustained by charity, nostalgia and conservatism.

By viewing this changing environment not only via a systems framework, but one attuned to the role of discourse in mobility, the viscose nature of many cyclo riders’ livelihoods becomes clear. They are bound to continued movement in the same way that others are bound, via the ‘cultural milieu’ in which they are embedded, to static places (Low, 1992: 165). Their ongoing attachment to rurality and rice – crucially in relation to plots too small to provide savings, but still large enough to comprise a significant component of annual income – means that cyclo riders have become trapped by the changing symbolism of their occupation. As their relevance to the mainstream of Phnom Penh’s transport has diminished, the mobile viscosity of their livelihoods has increased, so that where cyclo riding once meant ‘freedom’ (Samnang, 30/06/2015), for many of those working today it has become confinement in perpetual motion.

**Bibliography**

Asian Development Bank [ADB] (2014) Cambodia: Diversifying beyond Garments and Tourism *Country Diagnostic Study* Manila: Asian Development Bank

Bakewell (2014) Relaunching Migration Systems. *Migration Studies* 2(3) 300-318

Bakewell, O., de Haas, H., & Kubal, A. (2011). Migration systems, pioneers and the role of agency. *International Migration Institute Working Papers Series. University of Oxford: Oxford*.

Bakewell, O., De Haas, H., & Kubal, A. (2012). Migration systems, pioneer migrants and the role of agency. *Journal of critical realism*, *11*(4), 413-437.

Brickell, K. (2011) “Translocal Geographies of Home in Siem Reap, Cambodia” in Brickell and Data (eds.) *Translocal Georgraphies: Spaces, Places, Connections* Farnam: Ashgate

Bylander, M. (2013) Depending on the Sky: Environmental Distress, Migration, and Coping in Rural Cambodia. *International Migration*. doi: 10.1111/imig.12087

Bylander, M. (2014) Borrowing across borders: Migration and microcredit in Rural Cambodia. *Development and Change*, *45*(2), 284-307.

Cervero, R. (1991). Paratransit in Southeast Asia: A Market Response to Poor Roads? *Review of Urban & Regional Development Studies*, *3*(1), 3-27.

D'Andrea, A., Ciolfi, L., & Gray, B. (2011). Methodological challenges and innovations in mobilities research. *Mobilities*, *6*(2), 149-160.

Davies, M. (2010) “Cambodia: Country Case Study” in Leung, S., Bingham, B., & Davies, M. (Eds.). *Globalization and development in the Mekong economies*. Cheltenham: Edward Elgar Publishing.

De Haas, H. (2010). Migration and development: a theoretical perspective. *International migration review*, *44*(1), 227-264.

DeWaard, J., Kim, K., & Raymer, J. (2012). Migration systems in Europe: Evidence from harmonized flow data. *Demography*, *49*(4), 1307-1333.

Doherty, C. (2015). Agentive Motility Meets Structural Viscosity: Australian Families Relocating in Educational Markets. *Mobilities*, *10*(2), 249-266.

Doughty, K., & Murray, L. (2014). Discourses of mobility: institutions, everyday lives and embodiment. *Mobilities*, (ahead-of-print) DOI: 10.1080/17450101.2014.941257 1-20.

Etherington, K., & Simon, D. (1996). Paratransit and employment in Phnom Penh: the dynamics and development potential of cyclo riding. *Journal of transport geography*, *4*(1), 37-53.

Faugier, J., & Sargeant, M. (1997). Sampling hard to reach populations. *Journal of Advanced Nursing*, 26, 790–797

Fleischer, M. (1995). *Beggars and thieves: Lives of urban street criminals*. Madison: University of Wisconsin Press

Furness, Z. (2007). Critical mass, urban space and velomobility. *Mobilities*, *2*(2), 299-319.

Fussell, E., Curtis, K.J., & DeWaard, J. (2014). “Recovery migration to the City of New Orleans after Hurricane Katrina: A migration systems approach.” *Population and Environment*, 35(3) 305 - 322

German Agency for Technical Cooperation (2009) *Foreign Direct Investment (FDI) in Land in Cambodia*. Eschborn, Germany: GTZ

Hoggart, K., & Lee, S. L. and Davies, A. (2002) *Researching Human Geography*. Oxford: Oxford University Press

International Bank for Reconstruction and Development [IBRD] and World Bank (2015) Cambodian *Agriculture in Transition: Opportunities and Risks* Economic and Sector Work, Report No.96308-KH Washington: World Bank Press

International Labour Organization [ILO] (2015) *Cambodia Garment and Footwear Sector Bulletin 1* Issue One Phnom Penh: ILO

Jacobsen, T., & Stuart-Fox, M. (2013). *Power and Political Culture in Cambodia*. Singapore: Asia Research Institute, National University of Singapore.

Jensen, A. (2011). Mobility, space and power: On the multiplicities of seeing mobility. *Mobilities*, *6*(2), 255-271.

Kalab, M. (1968). Study of a Cambodian village. *Geographical journal* (134-4) 521-537.

Kaufmann, V. (2002) *Re-thinking mobility: contemporary sociology* Aldershot: Ashgate.

Kiljunen, K. (1984) *Kampuchea: The Decade of Genocide. Report of a Finnish Enquiry Commission* London: Zed Books

Levitt, P., & Lamba-Nieves, D. (2011). Social remittances revisited. *Journal of Ethnic and Migration Studies*, *37*(1), 1-22.

Li, G., Zhang, J., Nugroho, S. B., Linh, T. N., & Fujiwara, A. (2011). Analysis of Paratransit Drivers' Stated Job Choice Behavior under Various Policy Interventions Incorporating the Influence of Captivity: A Case Study in Jabodetabek Metropolitan Area, Indonesia. *Journal of the Eastern Asia Society for Transportation Studies*, *9*, 1144-1159.

Liese, B., Isvilalonda, S., Nguyen Tri, K., Nguyen Ngoc, L., Pananurak, P., Pech, R. Shwe, T.N., Sombounkhanh, Möllman, T., Zimmer, Y. (2014) *Economics of Southeast Asian Rice Production* Agri-Benchmark Working Paper 2014/1 accessed at http://www.agribenchmark.org/fileadmin/Dateiablage/B-Cash-Crop/Reports/Report-2014-1-rice-FAO.pdf

Low, S. M. (1992). “Symbolic ties that bind” in Altman, I. and Low, S. (Eds.) *Place attachment*. US: Springer, 165-185

Mabogunje, A. L. (1970). Systems approach to a theory of rural‐urban migration. *Geographical analysis*, *2*(1), 1-18

McKay, D. (2007). ‘Sending Dollars Shows Feeling’–Emotions and Economies in Filipino Migration. *Mobilities*, *2*(2), 175-194.

Madhur, S. (2013) *Sustaining Cambodia’s Development Miracle: What’s Next?* Paper presented at Cambodia Outlook Conference, 20th of February, 2013, Phnom Penh

Manderscheid, K. (2014). Criticising the solitary mobile subject: Researching relational mobilities and reflecting on mobile methods. *Mobilities*, *9*(2), 188-219.

Merriman, P. (2014). Rethinking mobile methods. *Mobilities*, *9*(2), 167-187

Milne, S. (2013) Under the leopard's skin: Land commodification and the dilemmas of Indigenous communal title in upland Cambodia *Asia Pacific Viewpoint* 54(3) 323-339

Milne, S. (2013). Under the leopard's skin: Land commodification and the dilemmas of Indigenous communal title in upland Cambodia. *Asia Pacific Viewpoint*, *54*(3), 323-339.

MoE and BBC (2011) *Understanding Public Perceptions of Climate Change in Cambodia* Ministry of Environment, Climate Change Department, Phnom Penh.

MOP [Ministry of Planning] (2012). *Migration in Cambodia: Report of the Cambodian rural urban migration project [CRUMP]* available at http://countryoffice.unfpa.org/cambodia/drive/Rural-urbanMigrationinCambodiaReport2012\_EngVersion.pdf

National Institute of Statistics [NIS] (2010) *Labour and Social Trends in Cambodia*. NIS: Phnom Penh.

Norm, S. (2009) *Gender & Climate Change Adaptation: Changing Rural Farmers’ Livelihood Patterns in Maung Russey District, Battambang Province, Cambodia* Unpublished MSc thesis, Thailand: Gender and Development Studies, Asian Institute of Technology.

Oeur, I. L., Sopha, A., & McAndrew, J. (2012). Understanding Social Capital in Response to Flood and Drought: A Study of Five Villages in Two Ecological Zones in Kampong Thom Province. Pellini, A. (ed.) *Engaging for the Environment,* 60-84

Orski, C. K. (1975). Paratransit: the coming of age of a transportation concept. *Transportation*, *4*(4), 329-334.

Parsons (forthcoming) Mobile Inequality: Remittances and Social Network Centrality in Cambodian Migrant Livelihoods *Migration Studies*

Parsons, L., & Lawreniuk, S. (2016a). The village of the damned? Myths and realities of structured begging behaviour in and around Phnom Penh. *The Journal of Development Studies*, *52*(1), 36-52.

Parsons and Lawreniuk (2016b) Love in the Time of Nokia: Cultural Change as Compromise in a Cambodian Migrant Enclave *Population, Space and Place*

Parsons, L., Lawreniuk, S., & Pilgrim, J. (2014). Wheels within wheels: Poverty, power and patronage in the Cambodian migration system. *The Journal of Development Studies*, *50*(10), 1362-1379.

Pellini, A. (2004). Traditional pagoda associations and the emergence of civil society in Cambodia. *Cambodia Development Review*, *8*(3), 5-8.

United States Organization for International Development [USAID] (2011) Property Rights and Resource Governance: Cambodia *USAID Country Profile* Cambodia: USAID

Shatkin, G. (1998). ‘Fourth World’ cities in the global economy: the case of Phnom Penh, Cambodia. *International Journal of Urban and Regional Research*, *22*(3), 378-393.

Sheller, Mimi and Urry, John (2006). "The new mobilities paradigm". Environment and Planning A 38 (2): 207–226

Shimazaki, T., & Rahman, M. (1995). Operational characteristics of paratransit in developing countries of Asia. *Transportation research record*, (1503), 49-56.

Shimazaki, T., & Rahman, M. (1996). Physical characteristics of paratransit in developing countries of Asia. *Journal of advanced transportation*, *30*(2), 5-24.

Sothear, K. and Robinson, H. (2014) “Cyclo Drivers Struggle and Demand Dwindles” *Cambodia Daily* 02/06/2014

Springer, S. (in press). Homelessness in Cambodia: The terror of gentrification. In K. Brickell, & S. Springer (Eds.), *The handbook of contemporary Cambodia*. London: Routledge

Suckall, N., Fraser, E., Forster, P., & Mkwambisi, D. (2015). Using a migration systems approach to understand the link between climate change and urbanisation in Malawi. *Applied Geography*, *63*, 244-252.

Trade Related Assistance Cambodia [TRAC] (2013) Helping Cambodia to become a Sophisticated Services Exporter *Trade Development Policy Note* accessed 05/08/14 at www.worldbank.org

Winchester, H. P. (1996) Ethical issues in interviewing as a research method in human geography. *The Australian Geographer*, *27*(1), 117-131.

World Bank (2013) Where Have All the Poor Gone? *Cambodia Poverty Assessment 2013*. Washington: World Bank Press

World Bank (2014) Cambodia: Country at a Glance accessed at

<http://www.worldbank.org/en/country/cambodia> on 21/01/2016

**Appendix A: Summary Tables of Key Quantitative Data**

Summary Table 1 on Cyclo Sample (Numeric Data; n=51)

Summary Table 2 on Cyclo Sample (Ordinal Data)

1. Given that close to 100% of paratransit workers are men, all of the informants in this study were male. [↑](#endnote-ref-1)
2. Psar Kandal has been translated here as Kandal market, which is the name commonly used by English speakers. However, the Khmer name translates as “central market”. It is rarely translated as such in order to avoid confusion with the French built Central Market, which is know in Khmer as the New Market [*Psar Thmei*]. [↑](#endnote-ref-2)
3. The data included in this table has been compiled from three separate studies. The data on garment workers, construction workers, motodops and garbage workers is published in Parsons et al. (2014). The data on beggars is published in Parsons and Lawreniuk (2016) and the remaining data is published for the first time here. [↑](#endnote-ref-3)