Social Geography I: Time and Temporality

Elaine Lynn-Ee Ho
elaine.ho@nus.edu.sg
Department of Geography & Asia Research Institute
National University of Singapore

Abstract:
Time and temporality have gained renewed attention in the social sciences. This report examines such research in social geography, contextualising these developments in earlier geographical scholarship. It excavates the contemporary ways in which time and temporality's relationship with space is conceptualised to analyse social relations, social inequalities and social justice. The report discusses three domains: intimate space-times, life-stage and life-course; migration, mobility and social inequalities; and human-nature relations in the past, present and future. The report argues that the temporal framings and strategies of how people engage with unequal socio-spatial relations are core to the enduring concerns of social geographers.

Keywords: Futures, Intersectionality, Space-time, Social inequalities, Time, Temporality

1 Introduction
Geographers have long engaged with discussions of time and temporality (e.g., Buttimer, 1976; Hägerstrand, 1970; Hanson and Johnston, 1985; Massey, 1992; Pred, 1984; Thrift, 1977a, 1977b; Thrift and Pred, 1981). While time is normally associated with an objective state (i.e., Newtonian clock time or linear time), it is also socially constructed through the condition of temporality, namely the state of existing within or having some relationship with time. Time and temporality are central to conceptualisations of modernity, development, capitalism, and globalisation (Harvey, 1989a; Low and Barnett, 2000; Raghuram, 2009). Structural conditions and human perception of time and time as constituted through everyday practices produce social and emotional states such as waiting, slowness, anticipation, anxiety/uncertainty, emergencies and crises. Linking experiential qualities of time to the condition of temporality raises crucial questions about time's effects on power and its spatial implications for social relations, social inequalities and social justice.

Where globalisation was once thought to herald the 'end of geography' or the 'annihilation of space by time', processes of globalisation have instead heightened geographical difference and spatial relationships, as well as modulated notions of time and temporality. Massey (1992) and Low and Barnett (2000) remind us that globalisation simplifies temporal heterogeneity into linear time (e.g. less globalised societies and future integration). The latter also urges researchers to recognise that "different social processes [have] their own specific temporalities" (page 58) and to think conjecturally by "shuttling back and forth between different temporal frames or scales to capture the distinctive character of processes which appear to inhabit the 'same' moment in time" (page 59). Holloway et al. (2019) further press for the importance of studying a "stretched notion of time" and the "vital conjunctures [that] emerge from and connect with longer-term histories such as colonialism or postcolonial politics" (page 468).

For geographers, space and time are mutually constituted. Examination of this conjoined relationship between space and time has resulted in neologisms such as "time geography" (Hägerstrand, 1970), "time-space rhythm" (Buttimer, 1976), "space-time" (Massey, 1994), "time-space compression" (Harvey, 1989b), "timespace" (May and Thrift, 2001), "timescapes" (Shubin, 2015) and more. Swedish geographer Torsten Hägerstrand (1970) is credited with originating the study of time geography (e.g. space–time prism model and space–time paths). Whilst quantitative in orientation, Hägerstrand's conceptualisation of time geography paved the way for seeing time as socially constructed in and through everyday spaces and places (Pred, 1984; Soja, 1985; Thrift and Pred, 1981), and recognising how different identity axes impact the way temporality is experienced spatially, producing power geometries (see Anderson et al., 2020; Massey, 1994; Scholten et al., 2012; Tivers, 1978). Time geography and its related debates remain core to Geographic Information Science (GIS) (e.g. special issue by Dijst, 2013), but conceptualisations of time and temporality have also evolved in manifold directions within social geography.

Time and temporality—in conjunction with spatiality—reveal "powers of reach" (Allen and Cochrane, 2010: 1073) that do not fall easily into expectations of what proximity or distance might produce. While such a perspective seems to reinforce institutional power, Ghertner (2017: 738) reminds us of the need to pay attention to "the anticipatory agency of those who wait and strategically read and respond" to the powers-that-be, which "morphs state space" at different times (page 744). For Ghertner, the 'when' matters as much as 'where' such citizen actions take place. In work on futures, Jeffrey and Dyson (2020) urge researchers to balance perspectives on the "anticipatory politics" that focus on how institutions like the state dominate control of the future with study of the oppositional "prefigurative politics" in which "people enact visions of change" in the present (page 3). Time and temporality therefore impact how biopolitical relations take shape, including translating ordinariness into urgent action (Anderson et al., 2020) or enduring waiting time in anticipation of change (Ghertner, 2017).

Notions of time and temporality inflect numerous themes in social geography, ranging from nostalgia and commemoration (Bonnett and Alexander, 2013; Sumartojo, 2020) to the currency of the present (Holloway et al., 2019; Jeffrey and Dyson, 2020), anticipatory politics (Anderson, 2010; Jeffrey and Dyson, 2020) and futures (Bunnell et al, 2017; Newhouse, 2017). This report examines key themes through which time and temporality are investigated by social geographers, thus advancing inquiry into social relations, social inequalities and social justice. While the themes presented progress from the intimate to more macro scales of experiencing and theorising time and temporality, there are cross-cutting domains too (e.g., familyhood with migration; climate migration with human-nature relations; home and memory with climate change).

2 Intimate space-times, lifestage and lifecourse
Growing interest in how time and temporality modulate space (henceforth space-times) and intimate lives characterise recent research in social geography, reflecting "uneven expressions of time" (Holdsworth, 2020: 2) that unfold in non-teleological ways. These writings engage with De Certeau's (1984) "practice" theory and the "everyday", Lefebvre's (2004) "rhythmanalysis", and humanist, phenomenological and feminist approaches towards time and temporality (e.g., Buttimer, 1976; Hanson and Johnston, 1985; Heidegger, 1996). As a sphere of intimate life, home spaces and domestic practices reflect the "complex and multiplex nature of time" (Liu, 2020: 12). Temporalities of family life are shaped by how

intimate space-times are negotiated within wider structural power relations, such as the way mothers' commutes are constrained by competing temporalities at multiple sites (e.g., work, school and childcare) (Rodriguez Castro et al., 2020). Rhythms of everyday domestic routines and family life relate to wider moral beliefs about the ideal order of society, including expectations of women's domestic labour (Holdsworth, 2020) and intergenerational relations (Ho and Chiu, 2020). Blunt et al.'s (2020) focus on "home-city biographies" also remind us of how intimate space-times extend across multiple, co-existing scales.

Relatedly, social geographers have been long concerned with how care work is tied to intimate space-times and transverse multiple spaces and scales. Building on earlier work on caringscapes (Bowlby, 2012), social geographers are now capturing even more complex constellations of space-time by analytically approaching examining care as assemblages (Power, 2019; Price-Robertson and Duff, 2019). Such approaches examine the way heterogeneous components of care work are drawn into relation with one another, including how family and non-familial carers are enfolded into webs of care through their relational and interdependent temporalities (Ho et al., 2020). Domestic rhythms and routines of social reproduction require collaboration and coordination, revealing inequalities of time use and "the social, spatial and technological assemblages that structure and maintain these" (Holdsworth, 2020: 5).

Temporalities of family and working life also need to be examined in light of how intimate space-times are umbilically connected to wider political forces to do with shifts in the global economy. Temporal patterns within families are oftentimes structured by work life, which can lend to vulnerabilities. Straughan et al's (2020) study of resource workers who commute long-distance at regular intervals exposes the risk posed by exhausting rhythms that challenge the wellbeing of the workers and family life at home both physically and emotionally. Emphasising the temporal dimension of social and economic life draws attention to the processes through which capital flows mediate individuals' work, leisure, and everyday life patterns (Mincyte et al, 2020).

Temporal patterns to do with life-stage and life-course further constitute the intimate space-times of how embodied identities, social relations and social life are regulated, organised and normalised. Although chronological age is often used to determine life rituals (e.g., schooling and retirement), social geographers studying children, youths and older adults have highlighted the complex ways in which time is experienced and deployed by each of these groups as they negotiate their life stage identities and across the life-course. Within children and young people's geographies, Holloway et al. (2019) argues for the importance of studying how biological and social agency is expressed by youths in their individual life-courses and at the societal level, bringing to view inter and intra-generational dependencies which can either open or foreclose possibilities for their current needs and futures. Equally important are how intersecting identities impact temporal experience. Middleton and Byles' (2019) study suggests that visually impaired (VI) youths experience anxiety and pressure towards notions of independence associated with 'coming of age'. The authors argue that interdependence provides a more appropriate framework for engaging with how youths with VI experience "temporal collisions" (ibid, 2019: 82) with different people as they go about life.

Research is also emerging on how time and temporality mediates ageing. Although older age is often associated with slowing down after retirement and as frailty advances, older adults in fact enact new activity rhythms. Ho et al. (2020), for example, demonstrate how both older

men and women in Singapore develop new post-retirement routines that involve, not only grandparenting duties, but also 'active ageing' activities to delay the onset of frailty later in the life-course. Focusing on the intersection of ageing and masculinity amongst retired British farmers, Riley (2019) observes that diurnal rhythms and certain spaces in the home (e.g., the kitchen as a new space of activity) adopt greater importance to the display of masculinity amongst older men. Their individual identity (as older farmers) also becomes conjoined with their sons whose skills are seen as an extension of their own, such that "past and future generations are often viewed, and talked off, collectively" (page 11). The studies above reveal how intimate space-times are experienced across different stages of the lifecourse, underscoring multiple temporalities, temporal interdependencies and intergenerational relationality.

3 Migration, mobility and social inequalities in space-times

Gaining renewed prominence in migration research is the entwining of time and temporality with spatial logics (e.g., Baas and Yeoh, 2019; Robertson, 2021), drawing out social relations and social mobility/immobility that are of interest to social geographers. Such research typically focuses on temporal dimensions to do with administrative and bureaucratic process (Axelsson, 2017), or migrants' "subjective engagement with the world and its objective temporal structures" (Collins and Shubin, 2015). As migrants straddle two or more parts of the world, their life-worlds are characterised by the politics of simultaneity (Yeoh et al., 2017) and life-course connections and transitions between the past, present and future (Bailey, 2009). Delayed time, regulated time, interrupted time, and accelerated time are core themes that illuminate how time and temporality contribute to precarity and uncertainty amongst different groups of migrants as they cross (internal or external) borders and attempt to settle in place.

Referring to the labour migration of low-skilled seasonal agricultural workers and highly skilled intra-company transferees, Allen and Axelsson (2019) draw attention to how holding temporary visas lead such migrants to undertake circular migration that precludes them from qualifying for longer-term settlement (i.e., indefinite exclusion). Yet pathways to settlement could paradoxically lead some migrants to accept exploitative working conditions (i.e., suspending their rights temporarily) that would extend their work permits. Allen and Axelsson thus argue that "the technologies of temporal management […] act as a supplement to spatial regulation, stretching and manipulating time to control the movement and rights of migrant labour" (page 118; but see Roberts, 2021 on temporary migrants' agentic tactics). Even when new immigrants have naturalised as citizens, the periodisation of migration by cohort (i.e. time of arrival) can enact differentiation towards one's perceived belonging and entitlement to rights and privileges. Suspicion towards the alleged loyalty of new immigrants and their integration intentions in the migrant-receiving country is further compounded by the diaspora strategies of the migrant-sending country as the latter enacts an extraterritorial reach over emigrants, using narrative structures that portray them as an extension of the nation abroad spatially and temporally (Ho, 2019). In these ways, temporal governance enacts territorial dominance and subjectification.

Writings on forced migration similarly highlight how nation-states regulate inclusion or exclusion by deploying "anticipatory temporal logics as rationales for prevention and deterrence" (Mountz et al., 2012:534). Such spatio-temporal logics of immobilisation take the form of ad-hoc/impromptu legislation and curfews that instil fear and uncertainty to immobilise refugees (Sanyal, 2018), or indefinite detention that entails regular transfers

across multiple spaces (Tazzioli and Garelli, 2020). Technologies of spatial and temporal control impact migrant identities and subjectivities, not only connoting illegality or criminalisation, but also producing particular kinds of economic subjectivities as waiting time is converted to devalued labour value (Coddington et al., 2020; Martin, 2020).

The space-times inhabited by migrants are punctuated by differentiated subjectivities and experiences arising from (intersecting) identity axes such as age and intergenerational relations, visa type, family structures, sexuality and class. Yeoh et al.'s (2020) study of transnational families address how multiple temporalities of care characterise the gendered politics of care work. Migrant parents may roster their journeys abroad so that one of them remains in the homeland with the children. But Yeoh et al. note that maternal migration could lead to temporal ruptures that cause irreversible damage to marital and mother-child care relations. Another body of research has examined the migration of older adults. Chiu and Ho's (2020) research brings to view how transnational grandparenting migrants who assist with childcare duties defer their own later life planning to apply for successive temporary visiting visas that incrementally extend their stay in the countries where their adult children and grandchildren have settled. Moving to the translocal context, Chen and Wang (2020) examine the pendulum mobilities of older migrants who move seasonally from colder northern to warmer southern China, but over time have more limited mobilities because of changing regulations that make it restrictive for them to purchase housing, alongside facing limited ageing support networks and constraints on using their place-bounded medical insurance.

Other research on migration and sexuality highlights the experiences of gay and queer migrants, emphasising the challenges such migrants face developing rootedness and belonging in another place over time—resulting in what Wimark (2019: 3) describes as an "enduring temporality of fleeing"—because of how sexual orientation intersects with identity axes such as the class, ethnicity and state frameworks governing their mobility. Providing a 'southern perspective', Luo's (2020) study of rural-urban gay migrants underscores how the rural-urban divide in China translates into circular migration for middle-class gay men, a spatial division that locates the 'productive sphere' (i.e., working life) in cities and social reproduction in the rural areas (i.e., family life) at different life-stages.

Lastly, work on climate migration is surfacing how changing climates and environments have both place-based effects and temporal urgency as the anticipated impacts of climate change are experienced presently. McMichael and Katonivualiku's (2020) study of coastal villages affected by rising sea-levels in Fiji illustrate how the villagers experience present environmental and marine life change, but the prospect of relocation would rupture the "thick temporalities" (page 286) characterising the villagers' ancestral, spiritual, intergenerational and personal connections to place. The temporalities of biophysical and climatic changes affect, threaten and alter human practices in ways that have spatial implications too, as we examine next.

6 Human-nature relations and space-times of the past, present and future
Questions about human engagement with multi-species, climate change and the Anthropocene (henceforth human-nature relations) are closely entwined with dimensions of time and temporality. Researchers studying human-nature relations are problematising how time is constructed and theorised, as well as the links between the past, present and future in determining environmental (in)action. Climate change discourse, for example, is often associated with impending crisis and approached by policymakers and publics with reference

to pasts and presents (McMichael and Katonivualiku, 2020). Relatedly, recent critical theorists of the Anthropocene, have noted that "dating the onset of the Anthropocene is a political and ontological as much as a scientific act" (Saldhana, 2020: 13). Scientists and policymakers approach the Anthropocene "within a temporal frame that begins with processes of clearing forests and burning fuel and subsequently devolves into another temporal conception, the 'great acceleration', as large numbers of species rapidly become extinct and sea levels rise" (Edensor et al., 2020: 256). Such depictions of the Anthropocene are regularly mobilised to connote crises and diagnose anticipatory actions to mitigate ecological impacts in the future (Erickson, 2020). Writing in the context of extractive industries, Kama (2020) observes that it is often unclear whose anticipatory knowledge counts in geosocial controversies over competing constructions of legacies and future benefits and harms.

For social geographers, research on human-nature relations has paved new ways of thinking about how the concept of race articulates with nature/the environment, and time and temporality. Scholars such as Yusoff (2020) and Erickson (2020) argue that the Anthropocene depends upon a universal image of humanity which is itself closely associated with colonial pasts and lived colonial presents. For example, Indigenous People's lands were appropriated for resource extraction in the past (Fitz-Henry, 2020; Theriault et al, 2020), but is now also subject to disputes over whether the land should be restored to them, or conserved by governments for future generations (Nustad, 2020). Referring to Canadian disputes over First Nations' control over forests, Erickson (2020) argues that the latter approach privileges whiteness as universality, managerial objectivity, equality and normalcy. It is not only extractive capitalism but also a racialised order (i.e. racial capitalism) that characterises how human bodies are differentially positioned. Some scholars like Yusof (2020) and Kama (2020) thus argue that the extraction of geological resources constitute geosocial worlds that are connected across space-times. Yusof further proposes the "inhumanities" as an analytic to critically examine how the extraction of geologic resources and value from subjugated racialised bodies maintains white supremacy.

Even as discussions of the Anthropocene and its geosocial worlds abound, Edensor et al. (2020) remind us that there are other temporalities and less abstracted ways through which humans coexist with non-human or more-than-human agents. Writing about the 'slow violence' enacted by environmental governance bodies which focus on linear futures, Fitz-Henry (2020) shows how nature activists and Indigenous communities deploy temporal strategies to "complicate both the speed and the relentless future-orientation" (page 261) of mainstream environmental policy making. She argues that these multi-directional and multi-scalar temporal frameworks "knit together places too often treated as outside the circuits of global capital or re-centring places assumed to be spatially peripheral to those circuits" (ibid, page 260). Such differently connected temporalities and places are emotive and sensory to the people inhabiting them, as Kothari and Arnall (2020) remind us. The entanglements between people and diverse more-than-human agencies is also reflected in Mincyte et al.'s (2020) research on how temporalities shape agricultural activities as care. Their focus on intergenerational attitudes towards farming in post-socialist Lithuania highlights how care for plants is an individualised kinship-based activity amongst the older generation (for food provisioning), whereas the younger generation sees it as a communal activity that strengthens civic life, thereby eschewing the negative connotations of communalism remembered by the older generation as coerced labour. These recent works on human-nature relations reveal how people's actions, beliefs and values in relation to human-nature space-times mediate social worlds in mundane as well as extraordinary ways.

7 Conclusion

Time and temporality contribute to and reflect the spatial exercise of power and the outcomes of intersectional identities, thereby organising and constituting social life. Building on earlier theorisations of time and temporality, current research addressing these themes in social geography has expanded considerably. From temporal conjunctures to stretched notions of time, temporal constellations and more, this report has excavated the ways in which time and temporality are experienced in human and more-than-human ways, invoked strategically by institutions and social groups, as well as offering or foreclosing certain visions of the past, present and future. The ethics of how people engage with the inequalities of socio-spatial relations and/or manifest agency through temporal framings (e.g. historical periodisation) and strategies are core to the concerns of social geography, informing not only our research but also the categories we use to organise thinking and teaching. The three thematic areas covered in this review report are non-exhaustive, but they reveal key approaches in critical space-time analysis that can be informative for wider research. Future research on time and temporality within social geography could deepen its engagement with postcolonial and queer theories (e.g. Chakrabarty, 2000, 2018; Rao, 2020; in geography see Oswin, 2012; Yusof, 2020). Other topics that could not be addressed within the word constraints of this report include heritage, bereavement and trauma; these convey important insights for conceptualising time and temporality in social geography too.

At a disciplinary level, timescales, time periods and time geography are thematic approaches that would bridge GIS, physical and human geography (also see Massey, 1999). For example, such research could bring together measurement of large-scale climate effects *alongside* how climate knowledge is produced and the way communities negotiate the intimate space-time effects of actual or perceived impacts of climate change in their daily lives. Or as physical geographer Dan Friess and human geographer Tariq Jazeel (Friess and Jazeel, 2017) have proposed (in the context of landscape studies), adjusting the analytical lens from the broad, abstracted temporal and spatial scales of geomorphological change to shorter time scales and smaller spatial scales would pertain to people's livelihoods of resource extraction (as well as impacts on the more-than human). Time and temporality offer us tools for radically shaking-up our understandings of the past to create new space-times that can remake assumed knowledges, identities and social relations of the past, present and future.

References

Allen, J. and Axelsson, L. (2019) Border topologies: The time-spaces of labour migrant re.g.ulation. *Political Geography* 72, 116–123. https://doi.org/10.1016/j.polgeo.2019.04.008

Allen, J. and Cochrane, A. (2010) Assemblages of state power: topological shifts in the organization of government and politics. *Antipode* 42: 1071–1089.

Anderson, B. (2010) Preemption, precaution, preparedness: Anticipatory action and future geographies. *Progress in Human Geography* 34: 777–798. https://doi.org/10.1177/0309132510362600

Anderson, B., Grove, K., Rickards, L. and Kearnes, M. (2020) Slow emergencies: Temporality and the racialized biopolitics of emergency governance. *Progress in Human Geography* 44: 621–639. https://doi.org/10.1177/0309132519849263

Axelsson, L. (2017) Living within temporally thick borders: IT professionals' experiences of Swedish immigration policy and practice. *Journal of Ethnic and Migration Studies* 43: 974–990. https://doi.org/10.1080/1369183X.2016.1200966

Baas, M. and Yeoh, B.S. (2019) Introduction: Migration studies and critical temporalities. *Current Sociology* 67: 161–168. https://doi.org/10.1177/0011392118792924

Bailey, A.J. (2009) Population geography: lifecourse matters. *Progress in Human Geography* 33: 407–418.

Blunt, A., Ebbensgaard, C.L. and Sheringham, O. (2020) The "living of time": Entangled temporalities of home and the city. *Transactions of the Institute of British Geographers*.

Bonnett, A. and Alexander, C. (2013) Mobile nostalgias: connecting visions of the urban past, present and future amongst ex-residents. *Transactions of the Institute of British Geographers* 38: 391–402. https://doi.org/10.1111/j.1475-5661.2012.00531.x

Bowlby, S. (2012) Recognising the Time—Space Dimensions of Care: Caringscapes and Carescapes. *Environment and Planning A: Economy and Space* 44: 2101–2118. https://doi.org/10.1068/a44492

Bunnell, T., Gillen, J. and Ho, E.L.E. (2017) The prospect of elsewhere: Engaging the future through aspirations in Asia. *Annals of the American Association of Geographers* 108(1): 35–51. https://doi.org/10.1080/24694452.2017.1336424

Buttimer, A. (1976). Grasping the dynamism of lifeworld. *Annals of the Association of American Geographers* 66: 277–292. https://doi.org/10.1111/j.1467-8306.1976.tb01090.x

Chakrabarty, D. (2000) *Provincialising Europe: Postcolonial thought and historical difference*. New Jersey: Princeton University Press.

Chakrabarty, D. (2018) Anthropocene time. *History and Theory* 57: 5-32. https://doi.org/10.1111/hith.12044.

Chen, J. and Wang, B. (2020) "Unattended" retirement: Lifestyle migration and precarity of the *Houniao*. *Population, Space and Place,* 26(8): e2369. https://doi.org/10.1002/psp.2369

Chiu, T.Y. and Ho, E.L. (2020) Transnational care circulations, changing intergenerational relations and the ageing aspirations of Chinese grandparenting migrants in Singapore. *Asia Pacific Viewpoint* 61(3): 423–437. https://doi.org/10.1111/apv.12292

Coddington, K., Conlon, D. and Martin, L.L. (2020) Destitution economies: Circuits of value in asylum, refugee, and migration control. *Annals of the American Association of Geographers* 110: 1425–1444. https://doi.org/10.1080/24694452.2020.1715196

Collins, F.L. and Shubin, S. (2015) Migrant times beyond the life course: The temporalities of foreign English teachers in South Korea. *Geoforum* 62: 96–104. https://doi.org/10.1016/j.geoforum.2015.04.002

De Certeau, M. (1984) *The practice of everyday life*. Berkeley: University of California Press.

Dijst, M. (2013) Space–Time integration in a dynamic urbanizing world: Current status and future prospects in Geography and GIScience. *Annals of the Association of American Geographers* 103: 1058–1061. https://doi.org/10.1080/00045608.2013.792171

Edensor, T., Head, L., Kothari, U. (2020) Time, temporality and environmental change. *Geoforum* 108: 255–258. https://doi.org/10.1016/j.geoforum.2019.11.003

Erickson, B. (2020) Anthropocene futures: Linking colonialism and environmentalism in an age of crisis. *Environment and Planning D: Society and Space* 38(1): 111–128. https://doi.org/10.1177/0263775818806514

Fitz-Henry, E. (2020) Conjuring the past: Slow violence and the temporalities of environmental rights tribunals. *Geoforum* 108: 259–266. https://doi.org/10.1016/j.geoforum.2019.09.001

Friess, D.A. and Jazeel, T. (2017) Unlearning "landscape." *Annals of the American Association of Geographers* 107: 14–21. https://doi.org/10.1080/24694452.2016.1230414

Ghertner, D.A. (2017) When is the state? Topology, temporality, and the navigation of everyday state space in delhi. *Annals of the American Association of Geographers* 107: 731–750. https://doi.org/10.1080/24694452.2016.1261680

Hägerstrand, T. (1970) What about people in regional science? *Papers of the Regional Science Association* 24: 7–21.

Hanson, S. and Johnston, I. (1985) Gender differences in work-trip length: explanations and implications. *Urban Geography* 6: 193–219. https://doi.org/10.2747/0272-3638.6.3.193

Harvey, D. (1989a) *The urban experience*. Baltimore: John Hopkins University Press.

Harvey, D. (1989a) *The condition of postmodernity*. Oxford, UK: Blackwell.

Heidegger, M. (1996) *Being and time: A translation of Sein und Zeit*. Albany, NY: SUNY Press.

Ho, E.L.E. and Chiu, T.Y. (2020) Transnational ageing and "care technologies": Chinese grandparenting migrants in Singapore and Sydney. *Population, Space and Place* 26(7): e2365. https://doi.org/10.1002/psp.2365

Ho, E.L.E. (2019) *Citizens in motion: emigration, immigration and re-migration across China's borders*. Stanford, California: Stanford University Press.

Ho, E.L.E., Zhou, G., Liew, J.A., Chiu, T.Y., Huang, S. and Yeoh, B.S.A. (2020) Webs of care: Qualitative GIS research on aging, mobility, and care relations in Singapore. *Annals of the American Association of Geographers* 1–21. https://doi.org/10.1080/24694452.2020.1807900

Holdsworth, C. (2020) The paradoxical habits of busyness and the complexity of intimate time-space. *Social & Cultural Geography* 1–17. https://doi.org/10.1080/14649365.2020.1769167

Holloway, S.L., Holt, L. and Mills, S. (2019) Questions of agency: Capacity, subjectivity, spatiality and temporality. *Progress in Human Geography* 43: 458–477. https://doi.org/10.1177/0309132518757654

Jeffrey, C. and Dyson, J. (2020) Geographies of the future: Prefigurative politics. *Progress in Human Geography* 030913252092656. https://doi.org/10.1177/0309132520926569

Kama, K. (2020) Resource-making controversies: Knowledge, anticipatory politics and economization of unconventional fossil fuels. *Progress in Human Geography* 44: 333–356. https://doi.org/10.1177/0309132519829223

Kothari, U. and Arnall, A. (2020) Shifting sands: The rhythms and temporalities of island sandscapes. *Geoforum* 108: 305–314. https://doi.org/10.1016/j.geoforum.2019.03.006

Lefebvre, H. (2004) *Rhythmanalysis: Space, time and everyday life*. London: Continuum.

Liu, C. (2020) Rethinking the timescape of home: Domestic practices in time and space. *Progress in Human Geography* 030913252092313. https://doi.org/10.1177/0309132520923138

Low, M. and Barnett, C. (2000) After globalisation. *Environment and Planning D: Society and Space* 18: 53–61. https://doi.org/10.1068/d8s

Luo, M. (2020) Circular, transitory, permanent: state and migration pathways among the intranational migrant gay men in China. *Gender, Place & Culture* 1–21. https://doi.org/10.1080/0966369X.2020.1715349

Martin, L. (2020) Carceral economies of migration control. *Progress in Human Geography* 030913252094000. https://doi.org/10.1177/0309132520940006

Massey, D. (1992) Politics and space/time. *New Left Review* 196: 65-84.

Massey, D. (1994) *Space, place, and gender*. Minneapolis: University of Minnesota Press.

Massey, D. (1999) Space-time, "science" and the relationship between physical geography and human geography. *Transactions of the Institute of British Geographers* 24: 261–276. https://doi.org/10.1111/j.0020-2754.1999.00261.x

May, J. and Thrift, N.J. (2003) *Timespace geographies of temporality*. London: Routledge.

McMichael, C., Katonivualiku, M. (2020) Thick temporalities of planned relocation in Fiji. *Geoforum* 108: 286–294. https://doi.org/10.1016/j.geoforum.2019.06.012

Middleton, J. and Byles, H. (2019) Interdependent temporalities and the everyday mobilities of visually impaired young people. *Geoforum* 102: 76–85. https://doi.org/10.1016/j.geoforum.2019.03.018

Mincytė, D., Bartkienė, A. and Bikauskaitė, R. (2020) Diverging temporalities of care work on urban farms: Ne.g.otiating history, responsibility, and productivity in Lithuania. *Geoforum* 115, 44–53. https://doi.org/10.1016/j.geoforum.2020.06.006

Mountz, A., Coddington, K., Catania, R.T. and Loyd, J.M. (2013) Conceptualizing detention: Mobility, containment, bordering, and exclusion. *Progress in Human Geography* 37: 522–541. https://doi.org/10.1177/0309132512460903

Newhouse, L.S. (2017) Uncertain futures and everyday hedging in a humanitarian city. *Transactions of the Institute of British Geographers* 42: 503–515. https://doi.org/10.1111/tran.12188

Nustad, K.G. (2020) Notes on the political ecology of time: Temporal aspects of nature and conservation in a South African World Heritage Site. *Geoforum* 111: 94–104. https://doi.org/10.1016/j.geoforum.2020.03.002

Oswin, N. (2012) The queer time of creative urbanism: Family, futurity, and global city Singapore. *Environment and Planning A* 44: 1624–1640. https://doi.org/10.1068/a44282

Power, E.R. (2019) Assembling the capacity to care: Caring-with precarious housing. *Transactions of the Institute of British Geographers* 44: 763–777. https://doi.org/10.1111/tran.12306

Pred, A. (1984) Place as historically contingent process: Structuration and the time-geography of becoming places. *Annals of the Association of American Geographers* 74: 279–297. https://doi.org/10.1111/j.1467-8306.1984.tb01453.x

Price-Robertson, R. and Duff, C. (2019) Family assemblages. *Social & Cultural Geography* 20: 1031–1049. https://doi.org/10.1080/14649365.2017.1420212

Raghuram, P. (2009) Which migration, what development? Unsettling the edifice of migration and development. *Population, Space and Place* 15: 103–117. https://doi.org/10.1002/psp.536

Rao, R. (2020) *Out of time: the queer politics of postcoloniality*. New York: Oxford University Press.

Riley, M. (2020) In the autumn of their lives: Exploring the geographies and rhythms of old[er] age masculinities. *Transactions of the Institute of British Geographers*. https://doi.org/10.1111/tran.12423

Roberts, R. (2021) 'His visa is made of rubber': tactics, risk and temporary moorings under conditions of multi-stage migration to Australia. *Social & Cultural Geography* 22: 319–338. https://doi.org/10.1080/14649365.2019.1584826

Robertson, S. (2021) *Temporality in mobile lives: Contemporary Asia-Australia migration and everyday time*. Bristol, UK: University Press.

Rodriguez Castro, L., Brady, M. and Cook, K. (2020) Negotiating 'ideal worker' and intensive mothering ideologies: Australian mothers' emotional geographies during their commutes. *Social & Cultural Geography* 1–19. https://doi.org/10.1080/14649365.2020.1757140

Saldanha, A. (2020) A date with destiny: Racial capitalism and the beginnings of the Anthropocene. *Environment and Planning D: Society and Space* 38: 12–34. https://doi.org/10.1177/0263775819871964

Sanyal, R. (2018) Managing through ad hoc measures: Syrian refugees and the politics of waiting in Lebanon. *Political Geography* 66: 67–75. https://doi.org/10.1016/j.polgeo.2018.08.015

Scholten, C., Friberg, T. and Sandén, A. (2012) Re-Reading Time-Geography from a Gender Perspective: Examples from Gendered mobility. *Tijdschrift voor economische en sociale geografie* 103: 584–600. https://doi.org/10.1111/j.1467-9663.2012.00717.x

Shubin, S. (2015) Migration timespaces: a Heideggerian approach to understanding the mobile being of Eastern Europeans in Scotland. *Transactions of the Institute of British Geographers* 40: 350–361. https://doi.org/10.1111/tran.12078

Soja, E.W. (1985) The spatiality of social life: Towards a transformative retheorisation. In: Gregory, D. and Urry, J. (eds.) *Social Relations and Spatial Structures*. London, UK: Macmillan Education, pp. 90–127. https://doi.org/10.1007/978-1-349-27935-7_6

Straughan, E.R., Bissell, D., Gorman-Murray, A. (2020) Exhausting rhythms: the intimate geopolitics of resource extraction. *Cultural Geographies* 27: 201–216. https://doi.org/10.1177/1474474019879108

Sumartojo, S. (2020) New geographies of commemoration. *Progress in Human Geography* 030913252093675. https://doi.org/10.1177/0309132520936758

Tazzioli, M. and Garelli, G. (2020) Containment beyond detention: The hotspot system and disrupted migration movements across Europe. *Environment and Planning D: Society and Space* 38: 1009–1027. https://doi.org/10.1177/0263775818759335

Theriault, N., Leduc, T., Mitchell, A., Rubis, J.M. and Jacobs Gaehowako, N. (2020) Living protocols: remaking worlds in the face of extinction. *Social & Cultural Geography* 21: 893–908. https://doi.org/10.1080/14649365.2019.1619821

Thrift, N. (1977a) Time and theory in human geography: Part I. *Progress in Human Geography* 1: 65–101. https://doi.org/10.1177/030913257700100105

Thrift, N. (1977b) Time and theory in human geography: Part II. *Progress in Human Geography* 1: 413–457. https://doi.org/10.1177/030913257700100304

Thrift, N. and Pred, A. (1981) Time-geography: a new be.g.inning. *Progress in Human Geography* 5: 277–286. https://doi.org/10.1177/030913258100500209

Tivers, J (1978) How the other half lives: The geographical study of women. *Area* 10: 302-306.

Wimark, T. (2019) Homemaking and perpetual liminality among queer refugees. *Social & Cultural Geography* 1–19. https://doi.org/10.1080/14649365.2019.1619818

Yeoh, B.S.A., Platt, M., Khoo, C.Y., Lam, T. and Baey, G. (2017) Indonesian domestic workers and the (un)making of transnational livelihoods and provisional futures. *Social & Cultural Geography* 18: 415–434. https://doi.org/10.1080/14649365.2016.1185800

Yeoh, B.S.A., Somaiah, B.C., Lam, T., Acedera, K.F. (2020) Doing Family in "Times of Migration": Care Temporalities and Gender Politics in Southeast Asia. *Annals of the American Association of Geographers* 110: 1709–1725. https://doi.org/10.1080/24694452.2020.1723397

Yusoff, K. (2020) The inhumanities. *Annals of the American Association of Geographers* 1–14. https://doi.org/10.1080/24694452.2020.1814688