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ARTICLE

Urban Errands

The means of mobility

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Abstract. Premising that both mobility and technology are co-constituted by gender, this article analyzes, through two day-long in situ interviews, the activities of two American women, one in Portland and the other in Manhattan. The author examines how mobility as a social and material system undergirds the use of new technologies such as cell phones. Furthermore, the article examines how possibilities for civic life circulate among these aspects of environmental, technological and social infrastructures.

Key words
automobiles • gender and technology • mobile phones • sport utility vehicle (SUV) • suburban design

THE OPENING SCENES OF PETER WEIR'S 1993 FILM FEARLESS feature a 40-something handsome white professional named Max Klein walking through the site of their plane crash. After handing over the two children he has rescued, he leaves the scene, renting a car and visiting an old friend before coming back to a large suburban home with concerned wife and son awaiting. A decisively male mobility marks this scene – and the rest of the movie – as a story of Klein's on-board heroism in the midst of the impending crash and the general ineptitude of the flight professionals unfolds.

The film fascinates, though its predictable gender politics put it squarely in the tepid mainstream. During the crash, for example, panicked female

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flight attendants hastily collect passengers' spectacles, sharp objects and women's shoes. On the other hand, immune to the descending plane's jolts, Klein leaves his business partner and strides down the aisle to a boy sitting alone, comforting terrified passengers on his way. Klein is able to leave the disaster zone because 'he' is all there – not only has he intrepidly kept his wits, but his wallet (driver's license, cash, credit card) rests in his jacket pocket and not in a long-lost purse, his shoes are on his feet, and he is not traveling with children or other dependants.[1]

The opening scene codes a logic of heroism elucidated through the duration of the film: the simple accoutrements that mark femininity – purses, high heels, children – not only exclude heroic acts through their foreclosure of mobility, but make their bearers subjects of masculine protection.[2] For Klein, masculinity itself was a mode of mobility – one that carried with it the potential for heroism. These events – and the version of mobility that make the movie's rehearsals of gender legible – encapsulate aspects of what I explore in this essay: the co-consitution of gender, on the one hand, and the use and negotiation of space and technology, on the other. I do this by analyzing two quotidian focuses of mobility: mobile phones and automobiles.

I offer my reflections through day-long ethnographies of two women's everyday tasks completed in June 2000, with my colleague Wendy March (a product designer), as part of a longer series of in situ interviews. Comparing Tracy, a suburban homemaker in Portland, Oregon, to Taz, an office worker in Manhattan, I examine the ways that urban geography and newly available mobile technologies work in conjunction to authorize meanings of mobility. Gender opportunities frame those possibilities. But so do other infrastructures, such as various sets of standards, how technologies do and do not 'fit' together seamlessly, and how technology is adopted in, and adapted to, locales and situations that already proscribe certain mobility routes. Thus, this question might be posed as one of how widely – if not globally – available objects, such as cell phones, are locally consumed and 'redesigned in use'[3] (Lyman and Wakeford, 1999: 366).

In this latter vein, my goal is to situate the phone within mobility counterparts that include such mundane artifacts as taxis, shopping centers and drive-through banking systems. In addition, by thinking about mobile phones laterally rather than through the more common method of tracing an object's biography to understand material culture, my intent is to examine mobility in the context of civic action. For if the physical environment allows opportunities for some, and not for – or to the detriment of – others, in turn, these geographies allow for political and civic involvement

that is different in kind from one another (Jain, 1998; Langan, 2001; Tadiar, 1993). How would one envision the founding moments of the Civil Rights Movement in car culture rather than bus segregation? Though it is not my goal here to answer this particular question, it does illustrate the way in which at one historical moment the bus, as a physical arrangement of transportation, enabled a certain mode of politicization. In this sense, I use this essay to initiate discussion on how new technologies such as the mobile phone enable new combinations and new productions of what mobility – and civic and personal possibility – can mean, but also how they tend to settle into preset infrastructures that include physical routes and social identity. How do fantasies about mobility shake down in workaday lives?

The Oxford English Dictionary captures the concept's dense history. Mobile can be used as a noun to signify a crowd (as in rabble), or as an *objet mobile* (as in the work of Calder). As an adjective it imparts the capability of movement: as in mobile kitchens, hospitals, recording units, homes and patrols of all kinds. In this sense, it implies portability, or something that is easily carried. While a 'mob' can be a strumpet or a cap, the verb 'to mob' means to go in disguise. But the class aspects of mob cannot go unobserved, for it also means to attack or annoy in a disorderly crowd, or to dress untidily. As a noun, the mob is the 'disorderly and riotous part of the population', 'disorderly or lower-class people', or 'gang of thieves'. These latter meanings root the term mobility as signifying the 'lower classes' – as opposed to nobility. The OED cites *Blackwood's Magazine* from 1843: 'They are as easily to be distinguished from the children of the mobility, as is a well-blooded Arabian from a Suffolk punch.'

Perhaps this last meaning of mobility is the most important for our purposes here, since mobility came to be used in sociology to indicate the possibility of changing economic class, usually put in progressive teleological terms as 'upward mobility'. The descriptor 'upward' contains an ambivalence pervasive to mobility. On the one hand, a focus on changing economic status focuses opportunities that wealth (with its attending gender and race specificities) has brought for geographic movement away from arenas of displeasure (white flight), or towards amusement (travel). On the other hand, mobility harbours the quintessence of homelessness – of those who interpellate shopping carts, heating vents, paper bags and other mobile and immobile urban infrastructures in their constant hunt for survival. Pair the words 'person', 'savvy', or 'urchin' with the word 'street' and the result refers to the ways in which poor people are thought to inhabit infrastructures (Albert, 1997). The street also has gender at its core: the male streetwalker is a flaneur, not a prostitute.

The 'mobile home' makes manifest the class ambivalences of mobility as that scrap of Americana stuck between the flux of freeway and suburb – idealizing wanderlust as it frustrates others' attempts to overtake the slow unwieldy vehicles. Similarly, bus and taxi-drivers, mail delivery and garbage pick-up people, and the police, while highly geographically mobile in themselves, have little opportunity for social mobility as they make possible the mobility of others crucial to the notion of a healthy economy. Perhaps the most telling contradiction of these overlapping conceptions of mobility in American culture is the phenomenon of 'DWB' – Driving While Black – in which the display of wealth through automobility that enables some, makes others, specifically African Americans, prone to over-regulation and brutality through policies of racial profiling (Glasser, 2000; Gilroy, 2000).

Thus, the ownership of what have become known as 'mobile devices' do not in themselves impart class or geographic mobility – they require infrastructures in many modes. Some of these modes are themselves immobile (though built to steer possibilities of action): airport security, freeway signs, drive-through restaurants, policing, doorsills. Others are mobile in adjacent, defiant and malleable ways: taxi drivers, traffic, flight attendants, doors that lock without a key, norms of etiquette. These overlapping semiotics of mobility are central to the ways that cell phones are introduced into plans and situated actions.

In his insightful history of the rise of phone use in the early 20th century, Fischer (1992) constantly refers to the growth of the automobile industry and the rise in the popularity of the automobile. Not only have the percentages of households who owned cars and phones risen in roughly the same proportion, but they have been conceptualized together in theorizations of modernity. But the mobile phone is an even closer cousin to the car than the landline phone was. Early cell phones were necessarily hooked to cars as whole offices were on the move in these semi-self-contained hybrid vehicles. My colleague Ann Weinstone describes cell phones as 'wormholes'. Perhaps in parallel to early motoring, which facilitated the experience of new places and modes of speed, cell phones may be experienced as tiny individual entryways into other spaces that can be inhabited by the mind while one's body saunters down the Castro or commutes between Berkeley and Palo Alto. For precisely this reason, complaints against the 70 percent of cell-phone calls that involve drivers have stuffed editorial columns for the past several years. The diversion of the cell phone for drivers is estimated to cause 600 traffic fatalities a year in the USA (Klines, 2001), as if these circulatory modes – one for the mind and the other for the body – are in direct contradiction.

Like their automobility predecessors, advertisements for cell phones, personal digital assistants (PDAs), pagers and other hand-held devices have played to some extent on all of these meanings of mob and mobility through their promises not only of convenience, but of freedom, movement, belonging, community building, status, safety and progress. Cell phones and other tools of mobility have been classic boys' toys: geeky guys were the first Newton users in the 1980s, businessmen the first users of cell phones. As tools that can be tucked away in an inside pocket or stored in a waist-belt holster, they not only readily fit with men's modes of, and opportunities for dress, they also brook a certain mode of technophilia related to other masculine-allied pursuits: chemistry sets, mechanical and computer games, and electronics (Lipman-Blumen, 1976; Pursell, 1979). This is worth noting particularly in the case of mobile phones, as it marks a switch from landline phones that were (like typewriters) gendered female through their use by clerical workers who used them largely in the service of male bosses of all kinds (Lupton, 1993). It surely also underwrites the 'Simply Palm' advertising campaign that featured a full-page image of a naked woman kneeling on the ground and curled into a tight ball as she displayed a palm pilot in her open palm. The sexism of these ads was widely acknowledged in a letter-writing campaign and a graffiti binge that changed 'Simply Palm' to 'Simply Porn' on a number of billboards in San Francisco (Mason, 1999).

The initial status of cell-phone ownership diminished considerably as critical voices have turned digital. As of winter 2001, newspapers still proclaimed three million new cell phone users a month (*PC World*, 2001: 35).[4] Many recent conversions have taken place among women, some of whom use them as work tools, and others who find them useful to keep track of children or to make arrangements during 'down' periods, such as at children's activities or while completing the other family and work errands that women still overwhelmingly carry out.

In feminist thought, both physical mobility and metaphors of mobility have had particular resonance, especially as a way of making concrete the historical and current limitations on women's educational, political, social and economic participation in public and private life. From the suffragettes' ambivalence about the home to women's exclusion from early automobiling to post-colonial work on border crossings, theorists have evoked the desire to transform and transgress space to symbolize the multiple ways in which women are kept in their place and prevented from attaining either geographic or upward mobility (for an excellent overview, see Pritchard, 2000). Indeed, the confusion between social and physical mobility is

captured in the still prevalent term 'glass ceiling', which spatializes the ways in which gender 'upward' mobility is limited through social structures. In this feminist sense, the potential for mobility very much defines one's possibilities for self-expression and personal fulfillment. But, furthermore, as class mobility is tied to wealth (rather than, say, education), and geographic mobility is tied to resources such as private property, private vehicles and access to planes, phones and credit cards, what it is to have the choice to be mobile is necessarily and integrally tied in with what it is to join in with capitalism (discursively and materially), virtually by definition.

For this reason, it is worthwhile thinking closely about the ways in which objects such as cell phones come with their own disciplining networks. These range from credit-card billing to roaming access to servicing. Again, they include changed physical environments, such as a decrease in the number of payphones. So while 'safety' is a key rhetoric in selling the phones, companies such as Bell South are dropping the payphone business (and with it 123,000 phones), claiming that servicing them is an expensive burden that does not pay. In California and Wisconsin, however, payphones are understood to be a matter of public safety – for battered women, for example – and these state governments have supported the maintenance of the phones. Thus, the fact that the phones and devices are themselves portable needs to be delinked from the actual (and contested) opportunities they carry for the mobility of their owners and users as well as for non-users in the community. This disengagement requires a careful figuring of the ways in which mobility and mobile devices are embodied – in gendered and other ways, and what these in some ways radically new embodiments mean in our thinking on subjectivity, civic action and community.

Many product designers and industrialists have been particularly attuned to allying identity with consumption and ensuring adequate conditions of consumption: personal and environmental. Perhaps auto manufacturers – who have been centrally involved in establishing auto-friendly environments by staking claims in road and highway design, auto safety regulation, and environmental debates – comprise the most obvious example. This infrastructural sway constitutes a crucial dimension of car consumption – in a different social or economic order, automobility may have been useless, senseless, or unviable. This coarse example serves to note what critical geographers have long asserted – that power infuses space; the built environment permits certain modes of action, identity and habitation, and thwarts others. This insight can be extended to think more critically about portable mobile technologies as well, as these also guide routes of geographic navigation.

One may see little potential for the tiny and relatively inexpensive cell phone to take over the environment in quite the same way as its automotive doppelganger. Yet for designers and commentators alike, it raises similar questions: what does mobility mean for different people? How do these devices change individual and cultural notions of efficiency, or civic possibility? What are the consequences of increasingly privatized consumption?

TWO WOMEN

Having moved for her husband's job to the suburbs of Portland from the East Coast during the computer boom of the last decade, Tracy is now a full-time mother and homemaker with a 6-year-old son, David, and a 2-year-old daughter, Rebecca.[5] In her late 30s, with an MBA, she volunteers for various child-centered activities and plays competitive tennis in addition to running the home. We spent time with Tracy during what she described as a more or less typical day: we joined her in the early afternoon at her home where we interviewed her and watched her prepare to go out. Then we went with her on an afternoon of errands. We all piled into her mid-sized sport utility vehicle (SUV); picked up her son from his school, where an assistant brought him out to the vehicle; went through a drive-through teller bank where she deposited some checks (with professional banking experience she does not trust web-banking); and bought a stroller and some new shoes for her son at a nearby shopping center. We left her at about 4.30pm, after she completed some grocery shopping. Tracy then went to her tennis game, where she leaves the children in daycare while she plays. Tracy is in charge of organizing and running the household, and one has the sense of the utmost care in organizing the details of the home and family life.

The day's errands were easy, though time-consuming – the roads were wide and relatively traffic free, parking was in plentiful supply, and 'drive-thru' systems were in place to ensure minimal exit and entry from the vehicle. The only time parking was at issue was at the shopping center: Mervyns' policy is not to allow shoppers to take carts out of the store, and an alarm system is in place to prevent this. Thus, after a trip to Target, it was necessary to trek back across the parking lot, strap the kids in car seats, and drive between the adjacent stores even though they share a parking lot and the distance was only about 500 yards. This shopping center, built on landfill, has been in that location for about 7 years.

Taz, a woman of about 35, manages the office of a mid-size design company that has about 26 employees in the San Francisco Bay Area and 5 employees in a new Manhattan office that was in the process of setting up

at the time we interviewed her. Taz's job involves extensive communication with staff as well as with other firms and clients. We met Taz in the morning on the day she was doing errands to prepare for an opening party at the company's new office loft on Broadway, near Prince Street in the fashionable district of SoHo. We interviewed her and then followed her through the day – perhaps an atypical day in terms of her job-tasks (organizing food, drinks and decor for the party), but through a set of generally typical activities. Before leaving the office, Taz did as much organizing as possible through emails, phone calls and the web. While we were with her, she walked four blocks to a large liquor store and bought several boxes of wine and drinks. On the way back, she realized that she had forgotten to buy champagne and would have to return to the liquor store. After having lunch with a colleague, she checked a few places for beer, ice and mixers, finally finding a shop on Broadway that would deliver. Returning to the liquor store, she waited for over 30 minutes for the cab, with a tall stack of boxes containing champagne and more liquor. Perhaps only because she finally beckoned a cab down on a corner where the boxes were invisible to the cab driver did she finally get one. Back at the office, a visibly stressed-out Taz let us go. Having originally estimated that the errands would be finished by 1.30 pm, it was already nearly 4 pm with much left to do on the list.

Both Tracy and Taz were completing typically feminized, service-oriented tasks, and they were, through their mobility, both involved in the project of carving out a space. For Tracy that space was 'home', a fixed geographic space and an imaginary one created through the movements of the family. Taz was claiming a new space – an office extended from San Francisco – and commemorating the occasion of this new place with a party. In other ways their situations were utterly different. Tracy was executing a course with which she was entirely familiar – the route, the tools for the job, and the environment were all well known to her. Not only that, but the urban geography had specifically been built to 'fit' the tools she was using: roads easily accommodated her SUV, parking was ample, and the school and bank were built in such a way that she could drive through. In contrast, Taz was negotiating unfamiliar terrain using a set of tools with which she was very familiar – cell phone, the internet – and others which were less familiar, such as taxis. Taxis are perfectly suited to carry passengers in densely populated areas, such as New York City (NYC) where parking would be a problem, and the taxi infrastructure in NYC is well developed in that they are a common mode of transportation. Nevertheless, Taz had difficulty flagging one down when she had heavy boxes of liquor piled high beside her.

Tracy keeps her cell phone in a pocket of her small black leather bag – handy for her and yet out of reach of her children. The phone gives her peace of mind, since her husband is frequently away, and it also helps her use bits of time that would otherwise be wasted. For example, she uses it in 'down moments' to make calls from her tennis list or in administrating her kids. One of these moments of down time occurred at a department store while she was waiting to check out with a pair of shoes for her son. While waiting for the cashier, who was assisting another customer, Tracy made a call. At the same time, the cashier was making a call for the other customer and rung up Tracy's purchase while both were on the phone. The entire transaction between Tracy and the cashier was made wordlessly.

Both of the stores Tracy visited were utterly self-serve. Her errands involved no necessity for communication with store personnel. As store clerks were already reduced to their bare-bones function – of scanning purchases and accepting a credit card – the phone enabled Tracy to multi-task in a situation already bare of interaction. For example, in the first store, she tried out a couple of the strollers and quickly decided on one, took it to the checkout, and left the store. In the second, Tracy's son David looked at the sneakers and tried on several different pairs. No one helped them size the shoes or could describe the differences of the shoes for them: the shoes themselves had to do the work of selling.[6]

Tracy had a hands-off approach to the shoe-buying affair, letting David look through the offerings and try the shoes on himself. After trying on a couple of pairs, David noticed a pair of Reeboks with an 'air pump' – a little knob that could be pressed and that would apparently fill the empty space in the sneaker with air for a tighter fit. He tried them on and pressed the air pump shyly but enthusiastically. This gadget and the interactivity of the shoe no doubt influenced his decision, after some hesitation, to opt for these more expensive shoes, even though it meant spending an extra $15 from his birthday allowance to do so, and that because of the location of the pump he was unable to tie them properly. In a later interview, Tracy said that David's friends all thought the pump was 'the coolest thing' for about a week, after which everyone forgot about it.

What used to be the moment of sociality, the exchange of money for commodity so at the heart of the capitalist system of exchange, has become a 'down' moment – one in which another interaction could simultaneously take place. On one level, this question is tied up with a history of the growth of the self-serve supermarket, and the decline of informal battering networks.[7] Tracy accepted new versions of efficiency – both for her personally as well as for the businesses she frequents. Tracy 'expects' to have

wordless interactions with store attendants, while she and the attendants are completing other business as they handle the checkout. When given the choice, Tracy will also use the 'You-Check' line recently available in her neighborhood's Fred Meyer, which allows her to scan her own purchases and credit card: 'I love it,' she says. In everyday life, she wants to 'get in and get out' – 'life is so hectic with two kids' – and Tracy appreciates the fact that she is 'not going to bond' with store personnel in big stores and that they need to cut down on staffing. Also enclosed within this geography of efficiency is the near structural impossibility of other types of interaction: one will by definition not run into or meet a neighbor at a drive-thru bank. The roadside architecture structures kinds of possibilities for civic interaction in ways that increase efficiency ('down moments', quick errands) and decrease accidental meetings.

Worth noting here is the fact that Tracy's phone interactions were devoid of what Geoff Cooper has called 'situation-work'. Situation-work is that explanation to the other phone party of where one is, as in, 'Hello darling, I'm on the train' (Cooper, 2001). Tracy's calls were brief and for the purpose of organizing her tennis games or child-focused activities.

This weighing of effort, investment and pay-off was a continual theme for both Tracy and Taz: should one use a headphone or hand-held device? A post-it note or a Palm Pilot? For Taz, the effort of using the Palm Pilot was not worth it, she uses the two she received gratis through her work as 'bookends'. But these understandings of efficiency are also couched within broader possibilities for civic life. For Taz, as we will see, urban geography was something to be constantly negotiated. For Tracy, choices were offered but not easily negotiable. She could choose a stroller but not get an informed assistant to help her out. She could undoubtedly have purchased six pairs of shoes and returned five of them – but not have anyone tell her the differences among them. In the context of meanings of mobility, efficiency here is very clearly a notion of following expected routes of good consumer behavior. Any change in her mode of transport, her acceptance of the department store's consumptive model, or her acceptance of the nuclear family model, for example, would vastly decrease her potential for efficiency.

While Tracy's trips took her about four miles from her home, Taz's were at most four blocks. In negotiating Manhattan, Taz's key technology of mobility was her cell phone, which she used constantly throughout the day. This was not unusual, she said, as she has no landline at home. Taz carries the phone in the pocket of her bag where it is safe from being pick-pocketed or tumbling out, while remaining accessible while she is moving

along busy streets. Taz used the phone to check directions, to call for delivery information, to keep in touch with the San Francisco office and other colleagues in NYC. As she described in a later interview, this 'lifeline' (her cell phone) allowed her to contact friends and colleagues that could direct her through NYC, to have a nice lunch while completing work related tasks on her phone, and to complete errands while being 'on call' for colleagues, for her boss, and in the completion of other errands.

Taz's first order of the day was to find food for the evening's festivities. Finding food.com's site hard to read, she moved on to urbanfetch.com, but found it even worse and jumped back to food.com. While Taz prefers shopping in person – 'I am a people person' – she will order online if necessary, especially for deliverables. After finding the restaurant on the website, Taz called to order the sushi for 60 people rather than using the site's ordering system. She gave her cell phone as the contact number, and we headed out towards the liquor store that a friend had recommended (about four blocks from the office).

As we walked along packed sidewalks, Taz called the store for confirmation of the directions – she called this a 'control issue'. A few minutes later, while making liquor selections with the assistance of a wine seller, she received two calls from the sushi restaurant regarding a confusion about her order and the availability of her previous selections. While she responded to the phone, the gentleman who had been assisting her walked back to his other work. It was difficult to tell if he was annoyed at, or resigned to, this mode of interruption. After the calls, Taz sought him out and they resumed.

After boxing her purchases and a short wait for a cab, Taz had called another distributor (while in the cab) who could not deliver, and received another call from a potential employee accepting a job offer. After dropping off the boxes at the office (and here our role was as *participant* observer), she organized by cell phone to meet a female co-worker for lunch. They met easily on a crowded SoHo corner. During lunch, Taz made more calls to order the forgotten champagne so it would be boxed and ready, and to invite people to the party. She also received a call from the company boss, Fred, asking for more liquor, and delegated some of the errands to her lunch partner, Beth. Later on, back at the liquor store, Beth called and triumphantly described the cups she had bought: the wrong ones. Taz then realized that she would have to do the errand herself. In the cab, Taz received two more business calls from San Francisco, the content of which visibly annoyed her.

Taz used the phone constantly during the day, as both her job and her environment necessitated consistent checking in. The phone was handy to

check on deliveries, to order in advance, and to keep in touch with the office goings-on in NYC and in San Francisco. The phone undoubtedly saved her several trips back to the office, and thus several trips up the stairs and fiddling with a cumbersome and unfamiliar combination lock system. On the other hand, the calls she received were clearly distracting. Perhaps as a result of the calls at the liquor store she forgot the champagne and had to return. As far as Taz is concerned, the phone categorically causes more stress: people expect more availability and will be more sloppy in giving directions knowing that she will be available for further contact or that she would be able to gain further clarification.

The calls also changed the nature of the social interaction she had at the store, since it was not only her errand that was interrupted, but the work of the attendant, who had to walk back and forth across the store each time she needed and 'dismissed' him. Taz uses her phone in public spaces with no hesitation. While shopping, Taz frequently will use and answer the phone, either ignoring a server or trying to 'give some sign' ('looking them in the eye'). On the other hand, Taz feels that a person should definitely not be on the phone while serving.

NYC urban geography also seemed to foster certain cell-phone behaviors. For example, other subjects in our study talked about using taxis rather than the subway system when they were expecting important calls. Many users would pull into shop or apartment doorways to have their conversations – or actually enter shops to talk and escape wind and cold. Taxi drivers also make extra tips knowing that the owners of forgotten cell phones will eventually call for delivery of the devices.

The cell phone is clearly a different kind of tool for Tracy than for Taz. While Tracy was able to use the phone to complete tasks, Taz was constantly available to callers as she was trying to complete her own tasks. While Taz was physically claiming an office space in NYC, she had difficulty claiming larger infrastructures of mobility through the city. The promise that Manhattan, rather than the suburb, holds, lies in the potential for a multitude of routes through the social and physical life of the city. In this way, the city is like a physical law – its spaces must be traversed within its own rules – and within that, one creates one's own spaces through negotiating its terms.

The obvious mobility tool for her errands was delivery – and barring that – the taxicab. The history of cabs in NYC has been fraught with fishy business – ranging from individual cabby behavior in garnering tips and overcompensation to the difficulty of potential customers of color getting rides (Vidich, 1976). While it is currently illegal for cabbies not to stop for

people obviously looking for a cab, New Yorkers readily assume that older or disabled people, those with many packages, or even those looking suspiciously as if they are going to the boroughs, will have difficulty in flagging down a lift. Taz experienced this twice. While if in a car she may have driven around for half an hour looking for a parking space, she spent that time waiting for a cab and finally resorted to subterfuge. This was not an isolated problem – a man with several boxes of liquor waited as long as we did as empty cabs drove by. (In fact, this gentleman gave the harried Taz a number of tips on the social geography of NYC.) Thus, in the city, with all its potential for difference, Taz had to constantly negotiate with mobility providers and compete with those others who may have been more able to shift the terms of negotiation in their direction (by being whiter, less burdened with packages, wealthier).

Taz was essentially completing office work away from her desk, while trying to keep in touch with the office. Authors have noted that the cell phone has induced new modes of navigating the city. For example, *Wired* reports that 'Like schools of fish, kids navigate on currents of whim . . . where Short Messaging Service messages dispatched on the phones summon other kids to send the group swimming somewhere else' (Silberman, 1999). Anthony Townsend (2000) urges urban theorists to study carefully the ways in which these tools quicken 'the pace of urban life and at an aggregate level, resulting in a dramatic increase in the metabolism of urban systems' (p. 95). My results show that 'pace' may be only one aspect of the ways that these tools change the nature, negotiation and navigation of space. These new modes of navigation bear a fuller analysis than I can give here. However, it is worth noting that the issue of interruption and accessibility has as much to do with hampering mobility as the cell phone itself does with mobility, especially when the mobility itself is in the service not of one's own whim but of another's call. In addition, the stress level involved with the necessity for instantaneous planning and juggling of tasks became itself a part of the urban geography.

In his ethnography of shopping in London, Miller (1998) argues that shopping for the family is a major way that love is manifested and reproduced. For him, family is a practice that is constituted through the full work of consumption (travel, parking, trying out/on, purchasing). The physical environment of Tracy's neighborhood, in which that practice of family took place, clearly oriented a notion of what the family unit would be. Mobility is a crucial component of the notion of family; for Tracy, the important facets of mobility were: staying in touch with her family, having options to go places with the things they own and with extra kids, doing things with

the least amount of hassle (drive through banking, driving between stores), and using up bits of down time. A key element of these perspectives is reflected in her choice of vehicle.

Tracy decided to buy a SUV for three reasons. First, she had heard that 'it does better in crashes against smaller cars.' Second, in Tracy's words, the higher seating of the SUV makes up for being a "short" person – not so much physically or ergonomically, but psychologically. Tracy said, "Now I get to be the tall one." Third, it is big enough to carry the family's stuff, especially skis and bikes for winter trips. The family had not taken any weekend trips in the SUV, but hoped to in the summer. They have used the four-wheel drive "maybe once". The family plans to buy another bigger SUV so that she can drive the kids and their friends around.

Tracy's first two reasons for driving an SUV have clear gender overtones, especially as the SUV has been marketed as a vehicle that can uniquely fuse the hitherto 'uncool' aspects of family life with the hipness of the outdoor adventure (forging new routes through both). In that sense, they have appealed to young families who want to associate and be associated more with the outdoors and adventure than with the suburbs and errand running. But this nexus of marketing and consumption also has a history in women's responsibility for the family's safety and men's idealization of the car as a means of escape and a tool for identity.

Early on, women were actively excluded from automobiling – except to clear the roads of children for commuters and pleasure-seekers (McShane, 1994). However, by the 1950s, advertisements unabashedly portray the second car as the woman's savior from that other all-American institution: the suburb. Ford's ad depicted a woman proclaiming that her new station wagon, the family's second car, allowed her to 'escape the prison of her home'.[8] As historians of technology such as Ruth Schwartz Cowan (1983) point out, labour saving devices such as the car, often entailed 'more work for mother' by giving them more responsibility while cutting down on their labour infrastructures (such as home deliveries or school buses). Still, Tracy owns a vehicle that allows her to make the most of her environment. Tracy's large vehicle easily fits the two car seats for her kids, she can load groceries in the back efficiently and drive-through her bank comfortably.[9] Indeed, the environment was planned for precisely this sort of family-making. The privatization of this family project as one reproduced through consumption is also seen in an understanding of 'safety' that relies on chauffeuring children as much as 'winning' in potential car accidents.

In one sort of feminist analysis, Tracy and other women who assert their claims to space through the size of their vehicles and the height of their

seats are making radical claims of entitlement. Nevertheless, the democratization of that entitlement sparks circulatory logic of prosthetic enhancement: it continually raises the stakes of normativity (Jain, 1998). Kristin Ross (1996) argues the specificity of the car's enaction of this reasoning:

> A miraculous object, the car can compensate for the destruction it has created – it can protect the driver and offer solace from the conditions it has helped create. In this the automobile follows the established order of the capitalism of which it is the twentieth-century emblem; for the established order of capitalism, as Marc Angenot points out, only subsists by repeating 'I didn't want that,' and by looking around in the disarray it has wrought for the means to restabilize. (p. 55)

If the SUV and suburbia can be read as a synecdoche of the rising stakes of privatization, so too can the cell phone and the purchased bottle of water – private commodities that reduce the necessity for shared interests in public resources. The lie of the fantasy of this possibility, however, is given over by the promise of escape from the necessary infrastructures themselves: the highways with their attendant traffic jams and nasty roadside architecture, or the children themselves, easily 'picked off' by the SUV's high bumpers and poor visibility.[10]

CONCLUSION

In Peter Weir's 1993 film *Fearless*, Klein's liberty was located in his wits, his wallet, and in the way he was allowed (as in permitted) to move through space. His mobility was also located by and through the women at his service. These women were not just randomly gendered women, but were explicitly sexualized. For example, as late as the 1980s, stewardesses had to quit their jobs when they married or at the age of 30; they were not allowed to wear glasses, which were thought to be unseemly; and they had to wear high-heeled shoes on long flights. Although these restrictions have now been changed, their ghosts are not unlike those of the pretty girls at the drive-in – 'its functional and spiritual heart' (Liebs, 1985: 211) – or those scant-clad bodies that have draped the hardware at auto shows or the ribbon cutters at highway-opening ceremonies – or indeed those initially despised gossipers who ultimately became the backbone of telephone companies' profits. These bodies have not only decorated, but have constituted the terms by which mobility and its potential have come to have meaning.[11] In design terms, these two stories tellingly illustrate the way in which personal

mobility requires a series of tools – objects and infrastructures – all of which need to fit together. For Tracy, they did: her tasks were made easy by the organization of the school that allowed an assistant to bring her son out to her car, by wide smooth roads that allowed easy passage of her SUV, by drive-through institutions, and by help-yourself shopping that allowed her to select quickly what she needed and to use bits of downtime – such as the checkout – for other business. This was an urban environment designed for smooth consumption and in contradiction of accidental meetings, social interaction, or modes of transportation other than private automobile. It was an environment made easy but non-negotiable through its series of non-human actors: roads, parking, shoes, strollers.

On the other hand, Taz had a similar number of tasks to complete, but had less command over her environment – one unfamiliar to her to be sure, and also one in which all of the tools of mobility did not quite come together in the same way. Her bustling office location readily put her within easy reach of one of the most well-known liquor stores in the USA, as well as within blocks of beer, food, mixers and other party supplies. In addition, she was organized with several sheets of neatly hand-lettered lists and phone numbers. Nevertheless, a number of infrastructural obstacles remained. The doors of her building were heavy, staircases were narrow, and the elevator was tiny and needed to be either activated by an occupant of the office or have a combination entered. Thus, moving heavy boxes was difficult for one person, and delivery was hard to come by. Immobilized by boxes, she was forced to use ruses to negotiate with mobility providers. In addition, because of the nature of her day's work, she was continually called on to weigh the importance of tasks: to answer the phone or continue with selecting drinks? To keep trying to get a delivery of beer and mixers, or to purchase them and lug them across the street and up the stairs? To deal with problems in the San Francisco office while in the cab in NYC? On the other hand, the contour of this geography led to several social interactions: all of the people at the liquor store were helpful and attentive, waiting for the cab allowed for banter with other waiting customers, cab drivers doled out advice on delivery possibilities, and a good non fast-food lunch was within walking distance. Thus, Taz's experience was slower but seemed richer with possibility. Tracy's was more homogeneous and perhaps more satisfying to her. While she knew where she could go for a chat with the check-out personnel, she had no expectations of others.

In these ways, negotiating space and technology through mutating arrangements among persons, objects, environments, routes and goals in the individual and collective creation of place and meaning constitutes

mobility. In this article I have attempted to disentangle some of the ways that the cell phone joins collections of other gendered infrastructures, such as suburbs and office work. But while I have tried to be suggestive, the data I have collected are not sufficient to draw conclusions on such questions as whether the cell phone ultimately creates more work for feminized jobs. This would take a longer study with women from many classes. Certainly Taz was ambivalent on this question, and Tracy felt that she could get more accomplished with the phone – though possibly she took on more chores or conceptualized them differently than she otherwise would have without it.

If Churchill and Wakeford (2001) are correct that the Walkman provided the social conditions of possibility for the cell phone by enabling the habitation of private space in public, perhaps Derek Simons is correct in his claim that the automobile provided the terms of possibility for the Walkman. In different ways, each of these artifacts manifest altered geographies through public private consumption. They each also vastly rework the possibilities for mobility. Larger and more comfortable SUVs change the driving topology, making driving more pleasurable for some, while raising the danger stakes for other (would-be) road users. Both of the subjects of this study had conservative notions of distraction and of the 'public private' (Berlant and Warner, 1998: 548–50) – or the mediation of privacy through hegemonic public culture. Both made and accepted calls without hesitation at any point, throughout the day and in very public ways. When Taz had a heated discussion in a public place, over the phone with an ex-husband, she was able to describe it in a culturally legible way to mildly interested onlookers: 'divorce'. Will the mobile phone provide more creative ways to transverse the physical laws of noble spaces, or will we be caught in the endless loop of amplifying homogenous lives?

Notes

1. We later learn that this calm is a result of shock – popular internet reviews note that this film is thus about 'human' responses to disaster. But the gendered logic in the film becomes clear when a viewer tries to imagine a female protagonist. Would she be wearing a suit with a sturdy inside pocket? Would she come home to a house-husband? Would the flight attendants be panicked men? If the attendants were women would they fawn over her in quite the same way as they did over him? How would the news coverage have heroized her? And so on.
2. Furthermore, much of the on-board heroism of Klein lay in the 'care taking' role he took on during the disaster – a role that not only would have been invisible if enacted by a woman, but was continually played against women's (real or felt) incompetence in care-taking.
3. On infrastructures and the attendant methodological issues, see Star (1999).

4. Statistics from Cellular Telecommunications and Internet Association claim that there are 65,000 newcomers everyday, and that 38 percent of US Americans are cell-phone users.
5. All names have been changed.
6. Theorists have understood this process in different ways. Paco Underhill advises the potential marketer of the importance of product placement for kids so that they will see and reach for the desirable product, and certain aisles will be unavoidable for parents (Underhill, 1999). Ralph Nader (1994) criticizes marketing for brand recognition and the 'nag factor' of product placement as the 'corporatization' of kids that leads away from civic involvement and prepares them for a life of brand consumption. Tracy's shopping experience exemplified the phenomenon that both of these commentators have observed.
7. Deborah Chambers' (1997) ethnography of a suburb in Western Sydney in 1950 analyses the social reorganization that followed new arrangements of shopping. She notes that the rise of shopping centers led to the decline of other aspects of the shopping experience, such as support networks and political organizations that were sustained through the daily contact with others in the community, largely through walking to the shops. Furthermore, informal bartering networks were lost and women were forced to seek paid work.
8. Ad shown in Halberstam (1997, Vol. 6).
9. Though SUVs are often advertised as offroad vehicles, or a way to 'get away from the maddening crowd', they have recently been designed quite clearly for around-town motoring. For example, the 2001 Ford Explorer's back hatch has been calibrated to enable users to load grocery bags in ergonomic comfort (San Jose Auto Show demonstration, 7 January, 2001).
10. "I've seen SUVs back up in school parking lots and nearly run over kids. The driver is just too high to see behind them" (interview with mother of two, 20 November, 2000). The SUV safety issue is an ironic turn on debates of the early century, when it was argued that: 'Mothers with their unique perseverance . . . should exercise a decided influence on those 80% of child casualties who are picked off when running . . . in the streets' ('The Great Current Story', *Commonweal* 13, 11 February, 1931: 397–8).
11. See, for example, *Wilson v. Southwest Airlines* (517 F. Supp. 292; 1981) in which a group of male plaintiffs filed suit against Southwest Airlines for its refusal to hire men on the basis that it only hired women flight attendants in an effort to project its 'image of feminine spirit, fun and sex appeal' (p. 6).

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