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CicLAvia and Human Infrastructure in Los Angeles: Ethnographic Experiments in Equitable Bike Planning

Abstract
Across the United States, bike movements are advocating for infrastructural changes to streets. Sustainable transport advocates and researchers expect that reshaping built environments will increase bicycle usage because people will feel safer riding with more cycling facilities in place. These strategies identify road design as the key factor in how people use streets. From an ethnographic perspective, cycling research should also consider how road users create meanings in transit. This paper looks beyond physical changes to space and explores how "human infrastructure" encourages or discourages bicycling. Tacking between observation and participation, cultural anthropology can help design experimental spaces, such as Los Angeles' CicLAvia, that offer diverse city inhabitants an opportunity to reflect on their transport habits in situ. Experimental spaces for bicycling show that human infrastructure shapes transportation behavior, and has the potential to change it. This paper contributes to a growing ethnographic literature in mobilities research.

Keywords: Transport cycling, Los Angeles, infrastructure, advocacy, ethnography, methods

1. Introduction

On Sunday, October 10, 2010, I woke up feeling anxious after a fitful sleep and headed to the East Los Angeles neighborhood of Boyle Heights. In Hollenbeck Park, where the roar of an overhead interstate highway never fades, I joined a large group of people wearing t-shirts emblazoned with the word "CicLAvia." I stood next to Antonio Villaraigosa, the mayor of Los Angeles, Jaime Ortíz Mariño, the founder of the *ciclovía* open street event in Bogotá, Colombia, and my fellow organizers as we took turns speaking to the media about what this day meant for L.A.

We would be closing 7.5 miles of central Los Angeles streets to cars to encourage city residents

to walk and bike along a route that spanned from historically Chicano Boyle Heights, through Little Tokyo, into the central business district, beyond downtown into Central American MacArthur Park, and through Koreatown to the East Hollywood “bicycle district” that had grown around a bike repair collective, the Bicycle Kitchen. The organizing committee hoped that selecting a route through Los Angeles' most densely populated and diverse neighborhoods would be a clear statement that transport cycling there was possible. During the day, despite the worst fears of reluctant bureaucrats, we saw nothing but smiles on the faces of people who may have never cycled before on the streets of Los Angeles. An estimated 30,000 people came out that day and enjoyed their city streets. More events have followed, and with each iteration, CicLAvia has grown. The event now attracts over 100,000 participants and has expanded to connect more neighborhoods.

In U.S. bike planning, the mantra is “if you build it, they will come,” meaning that infrastructure projects are expected to produce more cyclists (Nelson and Allen, 1997; Dill and Carr, 2003). Can open street events like CicLAvia also promote cycling? The international conversation around ciclovías has had effects in other cities, with regular ciclovías happening in Mexico City, New York City, and other metropolises in the Americas. This paper uses qualitative, participatory research on the L.A. bike movement to argue that social networks and cultural practices should be seen as “human infrastructure” supporting the rise of bicycling as a mode of transport. This concept brings advocates' and planners' concerns about street design into conversation with the social scientific project to challenge divides between human and nonhuman actors. L.A. still has a very small bicycle modal share, with estimates from the American Community Survey hovering around 1% since 2008 (Alliance for Walking & Biking, 2012), but there has been an increase in cycling in the central city. At the intersection of Seventh Street and Alvarado Street, which is along the core CicLAvia route, ridership increased 165% between 2009 and 2011 (Los Angeles County Bicycle Coalition, 2012). CicLAvia has increased the visibility of cycling in Los Angeles, but its success built on existing networks of cyclists.

Increasingly, city governments are transitioning away from policies that frame cycling solely as a recreational activity and are instead supporting transportation cycling infrastructure as a way to promote public health and ecological sustainability (Dill, 2009; Pucher et al. 2010). In working to increase the numbers of people choosing to bike, U.S. bike advocates and researchers tend to emphasize urban form, often lobbying for northern European infrastructure models (Pucher and Buehler, 2008). In addition to "if you build it, they will come," bike researchers are starting to talk about using "social network effects" to promote bicycling (Goetzke and Rave, 2011). There is a growing recognition that individual behavior influences other individuals' behaviors.

This paper takes an ethnographic focus on the social practices that enliven cityscapes, complementing the physical infrastructure approach while working toward a qualitative understanding of the shift toward transport cycling in Los Angeles. I first outline my methods, then construct a theoretical framework for conceptualizing infrastructure, human and otherwise, based on the case study of biking in LA. If human behaviors can be infrastructure to enable certain actions, we should also consider the unintended effects physical infrastructure projects can have in social space.

2. Methods: Experimental Ethnography

The field of cycling research encompasses the social world of bicyclists and the spatial designs of bike infrastructure, and academic inquiry can bring social movements to bear on spatial disciplines such as geography, planning, and urban anthropology. The research reported here attempted to bring the unstructured time of cultural anthropology's primary method, ethnography, into the more time-sensitive world of bicycle advocacy. This meant living and working alongside the cultural group under study, with the aim of developing theoretical frameworks through engaging with the everyday life of a bike

movement in a city where power plays out in the street. From September 2008 to February 2011, I was a community member at an urban ecovillage in central Los Angeles and participated in projects that aimed to support bicycling in diverse neighborhoods there. One project, City of Lights/Ciudad de Luces, was designed to engage low-income, Latino cyclists with the local bike advocacy movement. The other was CicLAvia.

As part of the "mobilities turn," there is a growing interest in urban mobility among sociologists and geographers (Sheller and Urry, 2006; Urry, 2008; Cresswell, 2010). However, despite interest by geographers in ethnographic methods, anthropologists have remained somewhat outside of this discourse. Anthropologist Farha Ghannam has argued that long-term ethnographic research can supplement the macro-scale focus of many mobility studies by emphasizing the social distinctions visible in everyday engagement, "the unexpected, fleeting, multiple, and hard-to-pin-down experiences that characterize city life" (2011:792). These things, while hard to quantify, certainly influence transport choices.

Ethnography is well-suited to contribute to this area of research because it "starts with the fact of mobility," as Cresswell has argued that mobilities studies should (2010:551). The city happens through individual bodies (Sennett, 1994), so both inanimate infrastructures and living practices should be taken into account when analyzing urban mobility. Anthropology starts from the materiality of everyday life rather than taking a model social structure for granted. The growing awareness that cultural life is formed in motion has taken anthropologists into new places, and even prompted a re-evaluation of what constitutes a field site; anthropologist George Marcus argued that, "empirically following the thread of cultural process itself impels the move toward multi-sited ethnography"

(1995:97). Since Appadurai's call to follow things (1986) and Latour's call to follow actors (1987), anthropologists have traced phenomena such as the development of policy (Harper, 1998), the reproduction of NGOs (Riles, 2000), and the trajectory of positron emission tomography (PET) scans from labs to courtrooms (Dumit, 2004).

The question of what distinguishes “multi-sited” from “mobile” ethnography merits further study. Though Cresswell characterized multi-sited ethnography as a step toward mobile ethnography (Cresswell, 2012), anthropology's enduring interest in sited milieux is not something that will fall away; it is rooted in a belief that shared cultural considerations play a significant role in what objects, individuals, and groups can travel and that these considerations can be apprehended by participating in the group's practices. This is why accounting for the situated perspective of the researcher, even as a figure in motion, is a core concern of anthropology. The discipline's defining aim has long been "to grasp the native's point of view, his relation to life, to realize *his* vision of *his* world" (Malinowski, 1966[1922]:25), but postcolonial (Chakrabarty, 2008), poststructural (Foucault, 1977), and feminist (Strathern, 1991) critiques have argued that power figures into the practice of ethnography as both fieldwork and written knowledge product. The mobile researcher does not transcend site; she becomes one, connecting ideas, people, and places that would not otherwise interact. As more anthropologists engage with mobilities frameworks, this discussion can be expanded.

Studying cycling in Los Angeles allowed me to experiment with this relationship between ethnographer and field. My methods included following bicyclists around the city and following ideas about bicycling from community meetings to city policy. As I developed this project, I was influenced by conversations about ethnographic experiments happening at the University of California, Irvine's

Center for Ethnography. The center is run by Marcus, who has referred to ethnography as "serious play" (2008:4). This evokes a mode of knowledge production through experimental practice rather than a fixed engagement between researcher and informant. As recently posited by anthropologist Kim Fortun, ethnography "can be designed to bring forth a future anterior that is not calculable from what we now know, a future that surprises. Ethnography thus becomes creative, producing something that didn't exist before" (2012:450). The experimental ethnographic space creates the conditions of possibility for new articulations and forms of life to emerge. The researcher is not outside of this process, but a catalyst for it.

During my fieldwork, I tacked between research and community-based advocacy, developing a theoretical framework to conceptualize cycling at the same time that I helped promote the practice in Los Angeles. I attempted to create an urban laboratory space for witnessing shifts in cultural attitudes toward mobility in Los Angeles, most notably in the case of CicLAvia. Both planning advocacy projects and watching them unfold provided ample opportunity to observe closely how people used streets in Los Angeles.

3. Bike Activism in the Streets of Los Angeles

Though cycling occurs in a "remarkable plurality of lifeworlds, histories, structures and cultures" (Horton et al., 2007:1), much work on the social life of cycling has focused on users who self-identify as cyclists and who organize themselves into subcultural groups such as bike messengers (Wehr, 2009; Kidder, 2011) or activists (Carlsson, 2002; Batterbury, 2003; Horton, 2006; Mapes, 2009). Los Angeles has these networks of subcultural and politically-oriented cyclists, but on its streets and sidewalks one also encounters many "invisible riders," immigrants from Latin America who use

bicycles but do not connect with these subcultural groups (Koeppel, 2005).

Even if a person using a bicycle does not develop an identity around the practice, cycling carries social meanings. Zack Furness has argued that, "the bicycle, like the automobile, is an object that becomes meaningful through its relationship to an entire field of cultural practices, discourses, and social forces" (2010:9). Whitaker commented that the bicycling of aging Italian men can be seen as "meaningful rather than just health promoting" because "their motivations often stray to the social, aesthetic, and psychological realms" (2005:2). Reporting on a study of the meanings of cycling in London, Steinbach et al. (2011) noted differences in how their interviewees defined cycling according to ethnicity, calling for further work on this topic. Writing about colonial India and Vietnam, Arnold and DeWald (2011) argued that bicycles manufactured in Europe took on local meanings and values tied to colonial power relations. Nancy Hunt (1994) explored the bicycle's association with modernity and the urban in the colony of Belgian Congo.

Though the meaning of cycling is socially constructed, in certain spaces it signifies marginalization regardless of what the cyclists themselves think they are doing. A recent report on cycling identities emphasized that riding in streets dominated by motorized transport constitutes a stigmatizing act in and of itself (Aldred, 2013). In the United States, cycling has long been the practice of eccentric enthusiasts, a status sport, or a mode of transport for those too poor or too young to drive cars. The demise of L.A.'s extensive streetcar system in the mid-twentieth century created a sharp divide between those who could afford to drive and those who could not (Hutchinson, 2000). This paper takes an inclusive view of who should count as part of the bike movement because transportation remains highly political in Los Angeles, both in terms of what gets funding at the policy level and who gets priority in everyday traffic interactions.

At a May 2010 event called "Walking into the Future City," an official at the Los Angeles County Metropolitan Transportation Authority (Metro) characterized L.A.'s implicit transport hierarchy

this way:

car > bus > bike > walking

The low status of cycling in Los Angeles stirs some cyclists to political action, but even those who do not have the ability or desire to attend hearings at city hall face the same marginalization on city streets. For this reason, "bike movement" here refers not just to particular identities and politically-oriented advocacy efforts, but also to the presence of cyclists in public space.

The bike social world I joined when I started fieldwork in Los Angeles dates to 1997, when a few people interested in bike commuting started a local Critical Mass ride (Lugo 2012a). Prior to this, bike advocacy in the region had been characterized by what local activist Joe Linton called "lone wolves" working singly on pet projects (interview with author, 2011). With support from the California Bicycle Coalition, Joe and Ron Milam started the first bicycle advocacy organization in Los Angeles, the Los Angeles County Bicycle Coalition (LACBC), in 1998. Still in his early 20s at that time, Ron was the founding executive director. When I arrived in Los Angeles in September 2008, they both lived at the LA Eco-Village (LAEV), an intentional community in a central L.A. neighborhood called Koreatown which has been a longtime hub of the local bike movement. Koreatown is situated on central L.A.'s urban grid that extends between Hollywood to the west and downtown to the east, which means there are many quiet side streets paralleling more congested arterials. I quickly learned that many cyclists who lived at LAEV had personalized routes that took them across the city while avoiding busy thoroughfares.

One ecovillager, Randy, knew more about bike routes than anyone else. He had been a bike messenger and a participant in LA's bike social world since its start in the 1990s. Randy showed me how to ride to the Hollywood Farmer's Market from LAEV. His route traveled west on First Street from the family-filled studio apartments of Koreatown, through the large homes of Larchmont, cutting north at Arden and Wilcox. Randy did not follow city-designated routes such as streets with bike lanes;

instead, he had amassed over many years of riding a detailed knowledge of tricks and shortcuts that avoided major streets, zig-zagging through the neighborhoods in between. Stewart argued that the bicycle can "produce speed" because its small size allows bicyclists to move through gaps in traffic (2004:154). Bicyclists can also find gaps in the built environment, cracks that one might not notice from a car or a bus. Riding a bicycle allows the individual to build a bodily spacetime that is less constrained by street design. Randy expressed a lot of satisfaction with his cycling knowledge of the city, which was for him a statement of non-conformity.

Bicyclists' perceptions of where it is appropriate to ride are influenced not just by infrastructure, but also by participation in particular social networks. Unlike Randy and other self-identified cyclists I knew, the immigrant cyclists I encountered during my fieldwork usually rode on sidewalks on arterial streets. Analyzing data from the 2001 U.S. National Household Travel Survey, Smart found that immigrants are more likely to use bicycles than the native born population and suggested that this related to the tendency for new immigrants to move into neighborhoods inhabited by co-ethnics (Smart, 2010). The people we live around influence our ideas about using urban space, and experienced cyclists become sources of knowledge for friends and family interested in trying out a bike commute. Based on this understanding, Ron started a group called BikeSage in 2008 that brought together people who rode bikes regularly to strategize about ways to get their friends on bikes. Set aside for other endeavors, the project came to an end in spring 2009. Ron described it this way when I asked him about it in early 2011:

> [T]he thought was there are people who ride their bikes today in Los Angeles who love it, they're completely comfortable with it, they know great places to ride. And their experience with it is completely different than people who are afraid of bicycling and terrified to bike. Like those of us who ride, we know where to go, we know how to ride, and we love it. And we deal with the existing conditions as we are. So the idea was, how can you create a network...[to] take the knowledge and experience that folks who ride in the community have, and share that with others in their social networks and inspire them to ride and sort of buddy up with them.

At the same time that I was observing cyclists at LAEV, I started learning about the bike

movement through collaborating on projects as an advocate. I had visited Bogotá in August 2008, when the ciclovía stretched over 120 kilometers of streets every Sunday. Through LAEV and LACBC, I helped form a group of people interested in making something like that happen in L.A. By late 2008, we were calling ourselves the CicLAvia steering committee. The group included individuals with specialized knowledge, such as longtime environmental advocates who knew the region's policy terrain, a traffic engineer, who made maps that showed details like population density along our proposed routes, and a graphic designer, who created a consistent theme for our promotional materials. Later, a prominent event planner joined the effort. In this work, I did not maintain a divide between scholarly and advocacy activities.

Our goal was to see CicLAvia become a weekly, city-run program with permanent street signage, as it was in Bogotá. We saw it as an opportunity to show elected officials that we had a bike movement and diverse cycling cultures in LA, and considered possible routes on scouting rides and in long conversations at committee meetings. On scouting rides, we took notes about potential barriers to a Sunday street closure, such as churches with parking lots that opened onto the desired street, and potential allies, such as cultural organizations. We scanned each block and thought about ways an eco-friendly dry cleaner, or a Korean radio station, or an empty park space at the base of a large corporate plaza might be transformed by crowds of bicyclists.

Through our eyes, heavily congested, car-dominated stretches of Los Angeles became a series of potential sites for people on bike or on foot to see and sit. Committee members lobbied for routes that included their personal favorite symbols of Los Angeles. Each of us wondered, what would be the most transformative route that would allow people to see the same L.A. from a new perspective?

4. Conceptualizing the Limits of Infrastructure

While we planned CicLAvia, the Los Angeles Department of Transportation (DoT) was in the process of updating their "bicycle master plan," a document that cities must develop in order to be eligible for bike infrastructure funds such as the State of California's Bicycle Transportation Account (Los Angeles Department of City Planning, 2011). Updating the plan meant holding public meetings where bicyclists were encouraged to share ideas for routes and other infrastructural changes around the city. LACBC staff were closely involved in this process, notifying members of upcoming meetings and pressuring the city to adopt better bike policies. In October 2009, I biked with friends to a library in South Los Angeles to attend one of the bike plan update meetings. The usual crowd of bike advocates milled around, talking to DoT planners. We were encouraged to draw on maps, review plan language, and submit comment cards. Despite this implicit recognition that existing cyclists had important knowledge to share, the stated goals of the update related to "interdepartmental communication" and designing "all bicycle facilities consistently in accordance with the latest federal, state and local standards." There was no stated intention to draw on the knowledge of existing cyclists, even though the only members of the public participating in this process were committed cyclists. At meetings like this, bike planning draws on human infrastructure without explicitly invoking it as a source of valuable insight.

Even though they relied on their local networks for route advice, bike advocates I knew also seemed to overlook the importance of embodied knowledge when promoting cycling. Expert knowledge had to come from outside them, based, if possible, on some "best practice" model

circulating among bicycle and pedestrian planning professionals online. For example, in 2009 and 2011 LACBC conducted bicyclist and pedestrian counts in central Los Angeles to quantify non-motorized transport users, a task the city had failed to undertake in recent years. Advocates wanted the city to take cycling seriously, so they framed their expertise as cyclists in as technical a format as possible.

Los Angeles' bike advocates had come to promote bike infrastructure as a way to ensure certain relationships between street users and urban space. However, urban space is not a neutral zone, but rather a series of meaningful landscapes where particular groups have lived through particular struggles. Individual trajectories do not happen in a vacuum; they negotiate existing built forms and the ongoing movements of others. Redrawing lines on the street does not erase legacies of segregation and disinvestment, and bike infrastructure has now been associated with gentrification (Lugo, 2012b). At that community meeting in October 2009, few people made comments on the portion of the map representing the historically Black and more recently Latino neighborhood we were standing in, presumably because most of us lived in other parts of the city. Outside the window, I saw several people of color biking down the sidewalks of busy Western Avenue. City efforts to include the public in bike planning decisions often rely on voluntary participation from cyclists, but the cyclists who have the free time to pursue political participation probably are not those who bike out of economic necessity.

Bike advocates are not necessarily equipped to engage with marginalized communities and bring their concerns to city planning processes. Davey Oil, an activist who has taught bike repair for many years, has commented that he sees the bike movement as an opportunity for cyclists to develop an awareness of race, class, and gender discrimination because feeling harassed by motorists while

cycling may be an otherwise privileged person's first experience of discrimination (personal communication with author, 2012). However, becoming a bike advocate does not automatically prepare one to confront other forms of bias, and advocates may overlook cycling practiced by marginalized groups such as immigrants and the poor because they do not imagine themselves to belong to a shared community with these others.

These empowered cyclists may become advocates and lobby for cities to install bike infrastructure. Because traveling in cars creates a divide between what Jain has called "the private space of the car and the social space of the street" (2006:66), Americans and others who habitually drive may not see roads as a shared social space. Wayfinding signage and symbols on streets ostensibly make it possible for any individual who encounters that space to understand how to share it. It is supposed to take the social encounter out of the equation; instead of interacting with other road users, individuals interact with signals and lane markings. Bike advocates may not notice that changing street designs affect property values and long-term residents' senses of place, or they may not see this as a negative outcome. When advocates talk about bike-friendly cities, they rarely mention social equity issues such as affordable housing, as evidenced by the League of American Bicyclists' recent "bicycling means business" summit themed around using bike infrastructure as an economic development strategy.

As often as bike enthusiasts note our practice's marginalization on shared streets, we usually do not mention bringing together different types of cyclists as part of the work of advocacy or planning. We assume that normalizing cycling will eliminate the gap between poverty and elite cycling, but without conceptualizing where these groups meet. Bike users who do not self-identify as cyclists and

who do not have the ability or desire to attend city meetings about cycling can be difficult to include in research and advocacy, but their use of street space should also be seen as part of the bike movement. We talk about infrastructure as though it can generate a population of “normal” cyclists that will fill the gap. As Spinney has remarked, in these infrastructure-oriented approaches “movement seems to have been largely ignored as a social practice generative of meaning in itself" (2007:26). Open street events like CicLAvia re-emphasize the role that individual movements play in placemaking.

Rather than focusing on changes to the built environment as the key to promoting cycling, I found that witnessing the interaction of bodies with other bodies, prostheses, and environments showed their permeability, what anthropologist Thomas Csordas called “the ambiguity in the boundaries of corporeality itself” (Csordas, 1994:3). Spinney argued that, “our perceptions of our environment are informed by the goals, skills and technologies available to us" (2007:29). To a cyclist, a street affords cycling, while to a driver, that same street might seem appropriate only for driving.

The lines between social life and infrastructure can shift, as in characterizations of infrastructure that see it as relational. To Star, “infrastructure is a fundamentally relational concept, becoming real infrastructure in relation to organized practices" (1999:380). In Star’s definition infrastructure is a social phenomenon. Dourish and Bell located infrastructure in the practice of everyday life, where “the embedding of a range of infrastructures into everyday space shapes our experience of that space and provides a framework through which our encounters with space take on meaning. The experiential reading of infrastructure, then, sees infrastructure and everyday life as coextensive" (2007:417). These readings provide an opening to consider infrastructure as something more than material.

Urban theorist AbdouMaliq Simone, writing about Kinshasa, Congo, noted the social power of

infrastructure as

> a medium of conveyance and articulation. It establishes a concrete framework for how residents are able to reach each other, how they are able to think about how they are positioned and located in relationship to each other. Through roads, wires, conduits, grids, and pipes, infrastructure establishes particular forms of individuation and autonomy (2009:124).

In this definition, infrastructure arranges individuals, limiting who can access what.

Even in a city with inconsistent public infrastructure systems, "infrastructural fragments… enable the creation of new social spaces" (De Boeck and Plissart, 2004:230). From an ethnographic perspective, what matters about infrastructure is its impact on social life. Referring to urban infrastructures as “life support systems” for cyborgs, Matthew Gandy described them as "modes of cognition as well as processes underpinning the restructuring of urban space" (Gandy, 2005:39). The key here is that infrastructure can create spaces from which new forms of social life can “spin off in wholly unexpected directions, generating intended and unintended outcomes” (Larkin, 2008:3).

Infrastructure is certainly a material interface between the wider city with social life. But there are forms of infrastructure that can only be located in social life, as Simone found.

> In a city like Kinshasa, people themselves are the important infrastructure. In other words, their selves, situations, and bodies bear the responsibility for articulating different locations, resources, and stories into viable opportunities for everyday survival" (2009:124).

People can be infrastructure; they create networks in which they hold places of meaning and value. Instead of reducing movement in the street to an individual engagement with physical transport infrastructure, the concept of human infrastructure emphasizes the role of social interaction in how people move.

A commonly cited study about “safety in numbers” suggested that the more cyclists and pedestrians there are using streets, the safer they are (Jacobsen, 2003). This led Jacobsen to question

"whose behavior changes, the motorist's or that of the people walking and bicycling?" (2003:208). He concluded that, "motorist behavior evidently largely controls the likelihood of collisions with people walking and bicycling" (2003:209). The more people there are outside of cars, the harder it is to maintain the illusion of automobility that tells drivers they are not a part of the spaces through which they travel. People are part of the infrastructure enabling or disabling certain mobilities.

What matters about this distinction between physical and social barriers to mobility is that changing social attitudes is a different project than changing built environments. In many cases, alternative social attitudes already exist, using the urban landscape in its current form, as Ron noted. Even in a car-dominated city like Los Angeles, people were already riding bikes to commute, run errands, and have fun. They co-created human infrastructure, building possibilities where physical infrastructure was lacking, and CicLAvia meant to share the mobile realities of these bike worlds with a wider group. After many months of planning and strategy, CicLAvia proposed the route described earlier to the city, and found support in Mayor Villaraigosa's office in 2010. The network activated by committee members enabled the experiment on 10-10-10, and that network grew in part from the cycling L.A. living in the practices of people like Randy.

Human infrastructure works positively and negatively for cycling. That is, human infrastructure in the form of group rides, social networks of activists, and the presence of bike commuters during rush hour encourages cycling. Human infrastructure in the form of honking, yelling, and other aggressive motorist behaviors discourage cycling. When bicyclists give each other directions based not on municipal cycling maps but on their own knowledge of city streets, they are using human infrastructure. When most people do not know how they would get from point A to point B without

driving, and they do not know who to ask about it, they suffer from a lack of human infrastructure. Other forms of human infrastructure includes idea and events that bring people together around a particular practice, such as Bogotá's ciclovía. In other words, a simple exchange of specialized knowledge or the enactment of an expectation can constitute human infrastructure.

The idea that everyone, even the most stalwart New York subway rider, must rent a car upon arriving at LA International Airport is a powerful piece of infrastructure discouraging sustainable transport use in LA. The effects of CicLAvia can be seen in a *New York Times* article on the event, which commented that, "for years, bicyclists in Los Angeles were just another renegade subculture in a city that is teeming with all manner of subcultures. These days, they have become downright mainstream" (Nagourney, 2012). It is telling that when the city adopted the updated bike master plan in 2011, the final document included photos of CicLAvia (Los Angeles Department of City Planning, 2011). Will cosmopolitan visitors "in the know" now rent bicycles in LA? For the CicLAvia on April 21, 2013, every rental bike at local retailer Downtown LA Bicycles had been reserved days in advance.

5. Conclusion

A qualitative analysis of urban transport cycling should acknowledge that the practice does not necessarily carry a stable meaning shared by all street users. Furthermore, the body and the environment do not remain discrete; on a city street, the distinction between material and immaterial infrastructures blurs as bodies become barriers. To illustrate this, I encourage the reader to visit Youtube.com and search for "ciclavia," which will call up many videos made by participants in the events. One can witness how each user negotiates the movements of others. Bodies themselves suggest

ways that other bodies should move. The range of people seen on the streets during CicLAvia also challenges the idea that bicyclists are a homogenous group. The event seems to be fostering the creation of new social networks for cycling and showcasing existing sustainable transport in a city known for its love affair with the automobile.

However, shifting toward cycling as transport in the U.S. is a piecemeal process, and if bike movements do not connect with other community-based networks, the infrastructure projects they promote may be perceived as serving a privileged few. As a result, cycling can come across as an act associated with gentrification, as has been reported in Brooklyn (DeSena and Shortell, 2012). There is a crucial step missing when we assume that everyone sees cycling and its infrastructure the same way.

Working closely with advocates gave me considerable insight into what they believed was necessary to make change, but being a collaborator also meant that I was influencing the field under study while documenting it. While this diverges from a more traditional model that hinges on a conceptual divide between researcher and subject, the critical move I make here is acknowledging my own participation as human infrastructure. As a researcher I was not separate from the everyday intersubjectivity of shared urban space where people creatively integrate cycling into their lives. Open street events like CicLAvia invite residents to come out into the street and reimagine life there through their own bodily practice. They also provide researchers with urban laboratories in which to experiment.

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