Districts and Networks in the Digital Generation Music Scene in Mexico City Alejandro Mercado-Celis

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Abstract

The identification of aestheticized urban districts with music scenes is a simplification of economic and cultural processes that take place at the metropolitan region and not at the urban district scale. Creative urban districts are a component of larger systems that include diverse consumers from different social classes with diverse tastes, many of whom come from places that are not as glamorous or trendy as hip neighborhoods. These other urban areas and the producers and consumers of cultural products in those areas tend to be forgotten or dismissed as unimportant. Exploring the spatial patterns of creative clusters at the intra-urban level is relevant for a better understanding of the role of central and peripheral districts in the functioning of these industries. Using social network analysis, this research spatializes Mexico City's local digital generation music scene and reveals a metropolitan-wide network of venues and bands. Policy implications targeting the network of venues and bands are discussed.

Key words: Music industry, creative districts, music scenes, social network analysis, Mexico City

Introduction

Revealing the actual geographies of a music scene has theoretical and public policy relevance. The spatial distribution of creative clusters within urban space is important for better-informed urban and local development policies. Our claim is that the spatial scope of a local music scene is metropolitan. Central urban neighborhoods identified as "creative districts" are components of a larger system that includes peripheral locations. Both central and peripheral urban districts share the same local bands; therefore, they are interdependent. Promoting a local music scene should take into consideration the metropolitan scale and the network interdependencies that are concretized in urban space.

Some authors in the urban music studies field have critically analyzed the identification of specific venues or urban districts as representative of entire musical styles and eras. For example, in analyzing Liverpool music mappings and heritage, Lashua et al (2009) called 'attention to hidden or alternative histories' and overlooked or forgotten venues beyond the dominance of the three famous Cavern, Eric's and Cream venues. Graves-Brown (2009) has also criticized 'the attempt to monumentalize popular music' with the purpose of selling cities and places within cities arguing that 'music is an event, and hence ephemeral, [... that] pop-related places themselves have often been highly ephemeral', and that the significant locations of pop music in a city are many and diverse. Most literature takes for granted that connections between urban districts and local music scenes exist. There is a need to document empirically the intra-urban spatial functioning of creative industries and cultural scenes and to add networks, dispersion and ephemerality to agglomeration.

To investigate the intra-urban spatial patterns of a music scene, the bordering neighborhoods of Roma and Condesa in Mexico City are examined. Recently, this urban district has been identified as the place where a new wave of indie rock has taken shape (Woodside, Jiménez López, & Urteaga Castro Pozo, 2011), a scene identified as the 'digital generation' (Macías, 2015, Woodside, 2012). The identification of this district with the Digital Generation Scene (DGS) and broadly as a creative economic cluster is, in our opinion, a simplification of an economic and cultural process that takes place at a larger geographical scale, at the scale of, say, the metropolitan region and not at that of an urban district. The aesthetics and the hybrid musical style that characterize the rock scene associated with Roma-Condesa have been produced by the interaction of actors in social and urban spaces all over the city. In this sense, the District is a component of a larger system that includes diverse consumers of different social classes and tastes as well as many places that are neither glamorous

nor trendy.

This paper begins with a literature review of three areas; music scenes, networks and urban space. In the second section we present a brief historical evolution of rock music and its spatiality in Mexico City. Next, we explain the methodology and the study case, which consists of the reconstruction of the DGS network through bands' touring within Mexico City in a two-year period. Section Four presents the empirical results based on network structure analysis and its relation to the location of significant venues in Mexico City's urban space. In the discussion section, we claim that a music scene's venues should be understood not in isolation but rather as an interdependent system and that spatial patterns are much more complex than the dominance of one or a few urban districts. Such spatial patterns call for a network-oriented policy approach instead of policies that target individual districts, selected venues or bands.

Music Scenes: Networks and Urban Space

In order to analyze the spatiality of the DGS in Mexico City, we use the concept of music scenes, since it captures the dimension of sociability created from the communion of bands and their fans in music venues. The music scene concept refers to a geographically-concentrated community which has common elements and objectives but that also shows internal diversity regarding the characteristics of the individuals. Straw's definition incorporates this double element: for him, a music scene is a 'cultural space in which a large range of musical practices coexist, interacting with each other within a variety of processes of differentiation, and according to widely varying trajectories of change and cross-fertilization' (Straw, 1991, p. 373) in geographically-specific spaces (Straw, 2002). Music scenes are productive in the double sense of producing music and producing identity and meaning through their consumption (Shank, 2011). Both musicians and live concert attendees are part of a scene.

Music scenes have a local and extra-local dimension. For Straw, the strength of the concept of 'scene' resides in the fact that it 'is used to circumscribe highly local clusters of activity and to give unity to practices dispersed throughout the world. It functions to designate face-to-face sociability and as a lazy synonym for globalized virtual communities of taste' (Straw, 2002, p. 248). Bennett and Peterson propose three types of scenes that capture the multi scalar geographical characteristic of scenes: *local scenes* 'as clustered around a specific geographical focus', *trans-local scenes* as 'widely scattered local scenes drawn into regular communication around a distinctive form

of music and lifestyle', and *virtual scenes* that result from the creation of a 'sense of scene via fanzines and, increasingly, through the internet' (Bennett & Peterson, 2004, pp. 6–7). It must be noted that the local scene is not defined precisely as being a whole metropolitan area, a city or a district within a city.

Local music scenes are spaces of encounter, interaction and recognition of shared styles, tastes and identities. Sociability in cultural industries goes beyond the social act of consumption; it creates the conditions for transmitting relevant knowledge, for forming and communicating tastes or aesthetic change and innovation as well as for passing relevant economic information such as job or investment opportunities (Currid, 2007). Connected to the sociability dimension, theatricality is another characteristic of music and local cultural scenes (Blum, 2003). Participants in a scene seek to see and be seen; they perform accordingly and make connections between strangers because of this performativity that implicitly connects them. This implies that scenes are visible in urban space through the collection of places that permits the establishment of the sociability of the scene (Straw, 2015).

Music venues are an important part of local music scenes. From the perspective of economic geography, a music industry cluster is composed of a conjunction of musical activities that involves the creation, production, distribution and consumption of music as well as the labor forces that feed these activities. Within this framework, venues and urban districts play an important role as places of knowledge creation and transfer. From a perspective of innovation and creativity, music venues are part of a larger system of places (restaurants, cafes, recording studios etc.) where music cluster participants and consumers can meet and interact, and therefore generate positive externalities that concretize in music creativity (Crossley, 2015; Allan Watson, Hoyler, & Mager, 2009).

Besides this general function of venues as places for interaction, research on venues explores the functioning of the venues regarding the kind of economic arrangements they make with bands (Connolly & Krueger, 2005; Hiller, 2011), the role of managers in selecting 'good' venues for bands' tours (Hracs, 2013), the different types of venues in terms of size and physical characteristics (Reynolds, 2008) or in relation to the type of temporality of bands - resident, circuits, or international tours (Laing, 2010). The digitalization of music has functioned as an incentive for live performances, particularly for small bands (Mortimer, Nosko, & Sorensen, 2012) and has increased the use of private spaces as opposed to local venues for gigs (Tschmuck et al., 2013).

Most relevant for this paper is the work of Gallan (2012) who shows that venues and their

associated booking agents can function as gatekeepers by promoting certain types of music or local groups. Many popular references attest to the importance of certain venues for certain types of music; celebrated cases are *CBGB* in New York, *Eric's* for punk music in Liverpool and *Fabric* in Manchester for the post-punk music world in the 1970s. This function partly explains the identification of specific venues as iconic and the places where they are located as 'scene districts'. However, the proclamation of the importance of a specific venue to a whole scene is not always well documented and is more related to a taken for granted collective memory.

The identification of specific venues within large music scenes is related to how we recall music experiences. Music memories are usually attached to a specific moment and place. Such places are in turn selected by narratives that give them 'official recognition' as relevant venues (for a discussion on heritage, memories and popular music see Cohen, Knifton, Leonard, & Roberts, 2014). We are not denying that there are important venues at given moments in the life cycle of music worlds/clusters and that a few venues concentrate the attention of key actors in the music industry (Crossley, 2015). However, from the point of view of bands and their need to get constant gigs and expand their fan-base, a few venues can be less effective than a large number.

Studies on venues and their relation to urban space tend to concentrate on the effects, regulations and policies for noise production levels (Burke & Schmidt, 2009) and on the negative effect of gentrification on venues (Mcardle, LEE, & Hui, 2014). Other streams of literature focus on the use of music and its representation for tourism promotion and city branding. Graves-Brown argues against the monumentalization of music and the attempts to localize physically significant places of a genre or a music scene, because music is 'an event and an action, and [because] modern urban and post-urban 'places' are fragmented, topological and often virtual' (2010, p. 220). The ephemeral aspect of venues is well pinpointed in his work; 'In fact, pop-related places themselves have often been highly ephemeral; the Blue Gardenia club, venue for the Beatles' first-ever London gig, existed for only a few months' (2010, p. 238). In their study of Liverpool, Lashua, et al. (2009: 126) argue that three venues dominate the 'broader symbolic meanings as representative of entire musical styles and eras', and conclude that 'hidden or alternative histories' must be included.

Two approaches exist to the study of networks in music and its relation to space: the first assumes the existence of social networks because of the presence of collective action, and the second uses social network analysis (SNA) methodology and focuses on the structural analysis of networks. In the first line of research, economic geographers studying music industry clusters have

reflected on the central role of networks in creating the conditions for localized music clusters to compete through organizational and technological innovation and creativity. Scott (1999) defines a music cluster as a creative field, which is a knowledge sphere constituted by specialized firms, artists, related labour markets, a set of institutions, linked by traded and untraded interdependencies all glued together by social networks. These elements of a music cluster and their interactions are illustrated in the successful case of Stockholm (Braunerhjelm, 2009) and the impact of new technologies in the functioning of that cluster (Power & Jansson, 2004). Leyshon (2001), in studying the economic and spatial impact of digital technologies in the music industry, distinguishes four networks: networks of creativity, production, distribution and consumption, each one operating with a particular spatial and economic logic. Watson (2008) analyzes networks in the music industry at the local and global scales. Using the case of London, he shows how the local music industry needs and uses global firms to reach and manage foreign markets. At the local level, he has also worked on the places that facilitate interactions among musicians, in particular recording studios (Allan Watson et al., 2009).

Studies that use SNA rely on hard data that can be measured and that shows the existence of a link between actors or components of a network and the attributes of both nodes and links. Crossley has carried out the most ambitious work on music and social network analysis. In a recently published book, he explains the formation and evolution of punk and post-punk music worlds in three cities: London, Manchester and Liverpool. Through the identification of a critical mass of actors and their linkages through different time cohorts, he is able to elaborate a complex, multi-actor, and multidimensional explanation of how a music world is formed and changes through time (Crossley, 2015). He empirically demonstrates that music is a collective process and that through actors' interactions, resources and coordination mechanisms are built in place in an evolutionary fashion. Other contributions of the SNA approach are: the link between network structure and musical success (Gunaratna, Stoner, & Menezes, 2011; McAndrew & Everett, 2015); social and geographical segregation in the jazz world in the U.S. (Gleiser & Danon, 2003); the preeminence of short paths, a high degree centrality and small world configurations in musicians' networks (e Silva et al., 2004; Makkonen, 2014); and the global geography of music production (Moon, Barnett, & Lim, 2010; Allan Watson & Jason, 2012). This study belongs to this literature stream; but before proceeding to examine the data in the next section, we must first contextualize the evolution of the rock music scene in Mexico City.

Rock Music in Mexico City and Its Spatiality

Mexican rock music has been widely examined. Most research has studied the political and countercultural aspects of rock music in Mexico and the links with social movements and social change (Anaya, 1999; Peza, 2014; Velasco-García, 2004; Zolov, 1999). Cultural studies cover a wide spectrum of research with salient works on youth identity formation and the construction of an alternative culture ethos (De Garay, 1996; Martínez-Hernández, 2013; Urteaga, 1998; Valenzuela & González, 1999), historical acounts of rock music in Mexico and Mexico City (Arana, 1985; Estrada, 2008; Paredes Pacho & Blanc, 2010) and digital generation studies that analyse its cultural and organizational practices (Macías, 2015; Woodside & Jiménez, 2012; Woodside et al., 2011).

The historical periods of rock music and their links with Mexico City venues and districts and relevant government policies can be briefly summarised as follows. Mexican rock music studies refer to six main periods. The first stage runs from the mid 1950s to the mid 1960s and is called the 'cover period' because bands mostly translated and reinterpreted American rock 'n' roll hits. The second stage came in the mid 1960s when a *hippie* inspired conterculture movement, known as the *Onda Chicana*, gained momentum in Mexico (Paredes Pacho & Blanc, 2010). Iconic venues in the first and second stage were juice bars known in Mexico City as *cafes cantantes* (Arana, 1985). At that time, no particular districts were identified with the music scene; *cafes cantantes* were scattered throughout the city.

A third stage came about when the Mexican government took a repressive stand against rock music. In 1971, a rock festival in a small town close to Mexico City got out of control when an unexpectedly large crowd of 150,000 to 200,000 people arrived on the scene (Zolov, 1999). The media and government authorities turned this event into a symbol of all things that were wrong about the influence of rock music on young people. As an immediate consequence, large rock concerts were banned for the rest of the decade (Martínez-Hernández, 2013). Concealed from the public eye, rock concerts were organized mostly in temporary facilities such as warehouses, vacant lots or empty buildings in peripheral, low-income neighborhoods. These spaces were known as *Hoyos Funky* (Zolov, 1999). These venues and the music associated with them (punk, urban rock) were linked in the literatura to the municipality of Ciudad Nezahualcoyotl, a working class area in the periphery of Mexico City's metropolitan area.

At the turn of the decade, the marginalization of rock music began to cease. A new wave of

rock-folk fusion musicians, known as *Rupestres*, appeared on Mexico City's music scene. These musicians expanded rock audiences by connecting to the intellectual left, a connection which gave them access to public and university cultural spaces. Meanwhile, on the music industry front, Latin American rock showed commercial potential and, by the second half of the 1980s, major labels started to sign on bands and promote rock music from spanish speaking countries. The 1980s also witnessed a flourishing of small, independent music venues. Iconic venues in the 1980s were *Rockotitlân* (first era 1985-1998); the gay bar 9 (1985-1989), which opened its stage for emerging alternative bands, *Tutti Frutti* (1985-1992) with an emphasis on punk, dark and goth, *LUCC* (1989-1992), tied to bands that were formed in the 1980s and became mega successes in the 1990s and *Rock Stock* (1987-2001), a concert-bar venue with a medium-sized capacity linked to the influential rock radio station *Rock 101*. A special mention should be made of *Tianguis Cultural del Chopo* (Chopo Cultural Market) which is to date one of the most celebrated places for rock music in Mexico City. Since 1980, *Chopo* has been a place for the exchange and sale of music, and even today offers free concerts. All the afore-mentioned venues were scattered in the city with no specific concentration.

The 1990s and the beginning of the 2000s, a period known as *Rock Mestizo* (Martínez-Hernández, 2013), saw the consolidation of Mexican bands. Cafe Tacvba, Maldita Vecindad, Caifanes, Fobia, Julieta Venegas, Molotov and others gained international recognition and achieved commercial success to a degree never seen before. New types of live music consumption emerged in Mexico City in the 1990s, changing the rock scene in several ways. First, Mexico City was included in the international circuit of international bands; from this point on, large auditoriums and stadiums continuously programme international rock bands. Second, large annual festivals were introduced in the city, most importantly for local bands such as *Vive Latino* (the first in 1998), which had the goal of being a window onto Mexican, Latin American and Spanish rock (Macías, 2015). Third, at the end of the 1990s and in the first decade of this century, Mexico City's historic downtown was the target for urban renewal policies, opening up opportunities for alternative music venues to emerge in this district. Fourth, iconic underground venues started to open in the mid-1990s. Examples are *Foro* Alica in 1995 (surf, punk, ska) and Circo Volador in 1997 (metal, gothic). Fifth, in 1997, the leftist party PRD (Democratic Revolution Party) won the elections in Mexico City for the first time. The new government programmed rock bands in public spaces, in part because of the rock bands' support for social movements and as a response to the rising importance of the youth vote

(Martínez-Hernández, 2013; Velasco-García, 2004). Sixth, bands continued to give concerts in peripheral areas; however, the literature hardly mentions them when reconctructing the 1990s' period, Galván (2013) being an exception. In the 1990s and first years of the 21st century, venues continued to be scattered throughout the city. No particular district was connected to the scene.

The current period in Mexican rock music started in 2006, and is known as the 'digital generation' (Macías, 2015). Rock bands in Mexico as well as elsewhere faced multidimensional changes that new technologies brought to the industry. This period in Mexico is marked by the retreat of big label companies from signing new bands, the emergence of independent efforts at all levels (producing, recording, and distributing), and increased pressure for bands to accommodate and perform multiple tasks, like marketing, social media management and merchandising. Culturally, the digital generation has an entreprenurial nuance (Macías, 2015; Woodside & Jiménez, 2012). The music of the digital generation is widely diversified and includes many rock-related genres (Woodside et al., 2011). The digital generation is formed by a myriad of bands, many acclaimed by national and international critics and invited to prestigious festivals in the U.S., Europe and Latin America

The DGS is the first one identified with an urban district. The Roma-Condesa District, icon of this generation, is, during the daytime, one of the most dense concentrations of creative industries in the city (Mercado, 2016) and a busy nightlife district. The District's economic boom started in the early 1990s when many creative firms located there, a process which was followed by the opening of many specialized restaurants, coffee shops and bars. Subsequently design, clothing, shoes and music stores opened. However, important music venues came much later. The link between the Roma-Condesa District and the current DGS starts in the second half of the 2000s. Macías (2015: 79) indicates that with the outbreak of the digital generation in 2006, a dozen new music venues opened between 2005 and 2006 'and the existing venues left their stages to the new bands and the youth night-life circuit in the Roma-Condesa District was activated'. Nowadays, the most visible venues in the District are *El Imperial*, opened in 2008, and *Caradura*, in 2010. These venues are the most relevant for the scene, as many interviews with musicians confirm (see Macías, 2015; and Quezada-Rivero, 2014).

Methodology

For this study, the focus is on the network of venues that, through hosting the same bands, form

circuits where bands tour the city and get in contact with their audiences. Methodologically, Social Network Analysis (SNA) allows us to identify the number of venues participating in a music scene in a city in a given period of time and to analyze the structural characteristics of the network created by the venues programming bands and the bands touring the city.

With this in mind, we spatially locate the DGS in Mexico City in order to address three questions: first, does the Roma-Condesa District capture a sufficiently important share of the action to be considered the core of the scene; second, does the scene involve socially diverse or different spaces from the Roma-Condesa which can be defined as high-income, alternative-consumption neighborhoods; (c) can we evaluate and understand the scene not only as a collection of places but as fluid movements that construct a network of alternative centralities within the city.

For this study we assume that Mexico City's DGS comprises all the bands that play in one of its most iconic venues and all the venues where these bands play in a recorded period. The venue selected is the Caradura stage-bar, a symbol of the scene and of the Roma-Condesa District. This venue should capture the dominance of the Roma-Condesa District over other sections of the metropolis, if it is indeed dominant. Next, we obtained a list of all the bands that played at the Caradura venue between November, 2012 and July, 2014. A total of 635 bands and DJs were listed. This group was then limited to local bands, and we excluded all DJ sets. DJ's are not included because 90% of the DJ's in Caradura do not mix existing music to create new music; they are mostly friends of the owners or known musicians that play recorded music after a concert or for a special event. In total, 266 bands remained. Then, as in the case of recording companies and venues that use 'Likes' as a measure of popularity (Vázquez, 2014) we classified the bands according to their popularity, measured by the number of 'followers' on their Facebook pages. Three categories were identified: low range with from 800-14,999 followers (221 bands); medium range with 16,000-76,999 followers (31 bands); and high range with 90,000-881,000 followers (14 bands)¹. A random, stratified sample drawn from thiese three groups yielded a final sample of 8 bands in the high range, 24 in the medium range and 129 in the low range, and a total of 161 bands. Each band's gigs agenda for 2012 to 2014 was registered, recording the name, type and location of each venue in the Mexico City Metropolitan Area (Mercado and Macías, 2015). Categories are based on the distribution of the bands in the sample; two clear gaps appear in the data distribution: one after 14,000 likes and the other after 76,000 likes. We tried to capture the differences between emerging bands, bands whose

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audiences were growing and bands that were consolidated. This distinction is important because 'large' bands represent a lower risk to venues than 'small' bands, and 'small' bands need to play more often than 'large' bands. This division allowed us to select a representative sample of each category. Macias also applied this cohort in her study of the digital generation (See Macías, 2015, p158-59). The information obtained allowed us to map the venues and construct a social network matrix to analyze the structural components and weight of the venues within the network.

Results

Bands that played at *Caradura* played at another 604 venues in Mexico City of which we were able to locate precisely 588 that were used in the spatial analysis. This is quite a large number of venues, much larger than expected. At first glance, this large number reduces the importance of each venue considered on its own, and indicates that the reproduction of the scene involves the use by musicians of a large number of places in which they can play. The diversity of types of venues is also interesting. In total, 21 types of venue were identified: besides the familiar stage bar or small to medium-sized auditorium, the most important other places that were commonly used were restaurants, bars, retail stores, dancing clubs, cultural facilities, public spaces, sports centers, and local government installations. We were also able to record the holding of gigs in private houses, parking lots and storage facilities, which are often used only once, as an ever-increasing trend in the city. With respect to public participation, we found that different government authorities owned 31% of all venues, making them an important actor.

Map 1 plots the territorial distribution of the network in the Mexico City metropolitan area. Two important features appear. First, the Roma-Condesa District identified with the music scene actually contains only a small fraction (17%) of all the venues where the scene 'happens'. Venues are widely distributed, even reaching the outer-most neighbourhoods. The second feature relates to socioeconomic differences among the municipalities where venues are located. Venues used by the DGS scene are located in municipalities ranging from the top in terms of per capita income in 2010 (Benito Juarez 45,012.6 USD) to one of the lowest (Ecatzingo 7, 276.0 USD). The Roma-Condesa District is located in the Cuauhtémoc municipality which has a per capita income of 25,494.7 USD (PNUD, 2014).

[Map 1 near here]

Although there are many venues located in Roma-Condesa, the district is only one

component of the system as a whole. However, it is possible that the district contains the most important venues for the scene. One way to consider this possibility is by measuring the 'degree of centrality' of each venue. Degree of centrality measures the number of connections each node has with other nodes in a network, nodes with more connections are more central for the network. In this case a connection between two nodes or venues indicates that the same band played in both venues, a high centrality venue is the one that host bands that play in many other venues, therefore is connected to all of them. Since we followed all the bands that played in *Caradura*, this venue has links to all other venues, therefore the largest centrality in the network. Because Caradura is located in Roma-Condesa, this district is over-represented in the network. Even so, of the 28 venues with the highest degrees of centrality (over 100 links each), only 8 are located in the Roma-Condesa District. Twenty are located elsewhere in the metropolitan region. The Roma-Condesa District has 28.6% of the venues with the highest degree of centrality, which makes it a relatively important concentration, but most importantly 72.4% of the high centrality venues are located either in other central areas or in peripheral municipalities. These areas comprise middle-class neighborhoods such as Satellite in the north and working classes neighborhoods such as Ecatepec, Netzahualcoyotl and Texcoco (see Map 2).

[Map 2 near here]

Another way to measure the centrality of each venue is by its location between paths; this type of centrality is called 'betweenness' and assigns more importance to those venues that function as connectors to other venues. In this case, the top 20 venues in terms of 'betweenness' centrality were chosen. Map 3 plots their geographical distribution. In this case, 7 venues, or 35% of the group with high betweenness centrality, were within the Roma-Condesa District. Again, this district plays a relatively significant role in connecting venues within the scene. However, 65% of top connecting venues were located elsewhere in the city, interestingly in some central working class neighborhoods such as Santa María la Ribera, and again in the municipalities of Ecatepec, Texcoco and Naucalpan on the periphery.

[Map 3 near here]

Another possibility is that the Roma-Condesa District is more important for a subgroup of the network, meaning that it is possible that a smaller number of bands and venues are part of a more condensed and agglomerated music subscene. To examine this possibility, we ran a K-Core Test, 'A k-core is a maximal group of actors, all of whom are connected to some number (k) of other

members of the group (Borgatti, Everett, & Johnson, 2013, p. 252).' With this technique, the network can be divided into subgroups. K-Core Test clusters are formed by exclusion, so no venue belongs to more than one cluster. Three top k-clusters were identified: (1) a 38 links cluster which was highly concentrated in the Roma-Condesa District, with 58% of all venues in this cluster. For this subgroup, Roma-Condensa was actually its core; but a venue in Texcoco, which was identified as having a high degree of centrality and betweenness centrality was also part of this cohesive subgroup; (2) a 31 links cluster which had a much wider spatial distribution, again having a presence in the far-out periphery and in the lowest per capita income municipalities as well as in the central areas and top per capita income municipalities; and (3) a 30 links cluster which had the particularity of forming two clearly separated agglomerations, one in the north, and the other in the central area. It is worth noting that these three subgroups with high-density interactions have very different spatial distributions. However, we must remember that these clusters are inter-related and not entirely separate.

Discussion: Working the City

The data presented shows that the live music infrastructure for the DGS music scene is a complex system and that the functional geographical dimension of the scene in Mexico City is metropolitan in scale. The network identified can be described as a complex system because it is formed by multiple, uncoordinated, spatially-dispersed actors located in different spheres of action (public/private/social) and in different positions in the live music industry (bands, venues and the middlemen: cultural promoters, booking agents, venue owners, band managers, public facilities' administrators, etc.). A wide distribution and complexity are not particular to Mexico City, but probably of music scenes in all large metropolises.

In relation to the intra-urban location patterns of venues, it is clear that places where bands played were located in a wide diversity of neighbourhoods within the city with very different socioeconomic and cultural profiles. Central and peripheral, high-income as well as low-income neighborhoods, hip-bohemian districts and working class districts, mainstream middle-class neighborhoods as well as cultural, alternative districts all featured. This diversity of spaces places a question mark against the prevalent representation of the Roma-Condesa District as the core of the DGS and the association of the demographics and consumption culture of the Roma_condensa district with the scene.

Iconic venues present themselves as cultural gatekeepers that support one kind of rock music or another and therefore are important actors shaping the way the scene develops. However, the continued life of a scene in a large metropolis can hardly be the result of the programming of a few, isolated gatekeepers but rather stems from the simultaneous, interdependent yet uncoordinated programming of hundreds of venues. Musicians tend to see iconic venues as a shortcut to success. However, fanbases and cyber followers are built by working the city's venue network. Music industry actors understand the need to 'work the city' better than musicians. In a conference in Mexico City organised in the context of the 2016 *Festival Marvin*, music industry moguls recommendation to emerging bands was to 'play every time and everywhere you can'. There are no shortcuts; the city has to be worked.

If the music scene is to be promoted as a whole, policy makers must consider the venuesbands network as a policy subject. Policies directed towards the network should evaluate the following elements: first, the existence of power asymmetries. Within the network, an unequal distribution of power among venues and bands could exist; for example, large bands probably have power over venues in selecting dates and contract conditions. Iconic venues could have power over medium and small bands and can impose dates and harsh working conditions; second, conflicts among participants. Conflicts can emerge between venues for two reasons. One is the lack of coordination and shared programming norms such that similar bands are programed on the same day, a venue hires a band that has been brought into the city by another venue, the public authorities programme rock music events that seriously diminish public attendance at small, private venues, etc. Other kinds of conflicts can emerge between permanent and temporary venues. Permanentlyestablished venues have to comply with existing government norms while temporary venues can evade legal restrictions by hopping from place to place. The programming of permanent and temporary venues can affect each other's attendance when they overlap in specific zones; third, entry conditions for emerging bands. Is the network effective in incorporating new bands? The programming of public and private venues can reproduce the existing structure of established bands. Fourth, information regarding gigs. Is the information for consumers regarding the 'who, where and when' of gigs efficient or does it reinforce the centrality of a few districts and venues? The actors that distribute information regarding gigs are radio stations, specialized apps such as 'Bands in Town', specialized journals and blogs. The question here is to what extent these actors tend to focus on large bands and the programming of iconic venues, again reinforcing central districts and major

bands. Consumers also access information about gigs by following bands and venues' Facebook pages or Twitter accounts. Is this method efficient, or does it make it difficult to have a general picture of what is going on in the city? (3) Public venues programming. As already mentioned, the programming of public venues is not coordinated. The question here is whether establishing coordination mechanisms for information gathering and sharing as well as common rules for the programing of bands could have a positive impact on the opportunities for new and emerging bands. Some private music venues could be included in such a system of coordination since many indie music venues in Mexico City have been asking authorities for recognition as cultural centres rather than as nightclubs.

A network-oriented policy could have a larger social impact given that a wide intra-urban distribution of venues would undermine socio-spatial segregation. If central districts dominate a scene, those that live far away, do not have easy access to private transport at night, and/or do not have the money and time to spend in central districts tend to be excluded. Usually those most affected by the lack of night entertainment in the urban periphery are young people, particularly minors who play a vital role in supporting a vibrant music scene. Indeed, in order to maintain a dynamic and inclusive night economy, venues for DGS should be encouraged if not directly supported all around the city.

Conclusions

By revealing the metropolitan extension of the DGS and the spatial location of high centrality venues in the Mexico City Metropolitan Area, we have demonstrated that peripheral districts are of major importance to the scene. Symbolic representations of the scene linking it with the Roma-Condesa District, as in the case of the work of Lashua and Graves-Brown- conceal the diversity and number of places involved at a given time and ignore 'hidden or alternative stories'. The invisibility of peripheral venues and, for that matter, of their audiences lead bands (and their managers, booking agents and promoters) to believe that only centrally-located venues are relevant for their careers and that playing in non-iconic venues is more of a necessity than an accomplishment (see interviews in Macías 2015). In order to make all venues visible and to give them the importance they deserve, venues must be reinterpreted theoretically not as individual actors but rather as parts of a larger system. In this sense, in addition to being the result of the strategic action of individual actors, cultural gatekeeping is the outcome of a system of complex interactions

among venues. It may be fruitful to conceive cultural intermediation as a complex, emerging system. In this sense, important venues in peripheral and/or low-income areas not only meet the needs of unattended 'market zones' but also allow bands to expand and diversify their fanbase.

Although the network structure indicates that the Roma-Condesa District is not the core of the scene, it is certainly a symbolic one. We do not have enough information to determine whether this fact has a negative or positive impact on the DGS as a whole. What we can affirm is that the network functioning of the scene complements the phenomenon of agglomeration. Research on local music scenes and related issues could be enriched if it incorporated this dimension. In practical terms, musicians, bands and middlemen in the live music business will benefit if more areas of the city are given symbolic value and their relevance to the scene is acknowledged.

We have contributed to the study of local music scenes by revealing their spatial scale and network functioning. However, this does not mean that we can assume that the network is conflict-free and efficient. Quite the contrary, we found that unequal power structures exist in the music scene due to the fact that venues have different centralities within the network and bands have different-sized fanbases. Furthermore, conflicts can emerge between actors and problems of coordination may affect network efficiency, in particular in relation to the concentration and distribution of relevant information about venues, bands and audiences. Further research on the governance of the network is needed in order to evaluate the relevance of policy-making that takes the network as its main-subject, builds coordination mechanisms that strengthen the entire network, makes venues in peripheral areas visible and facilitates the entrance of emerging bands.

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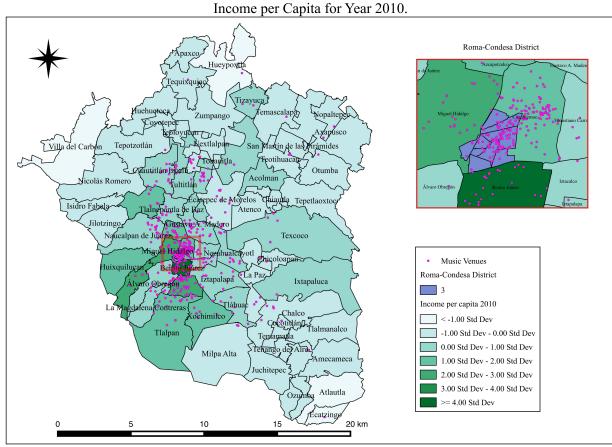
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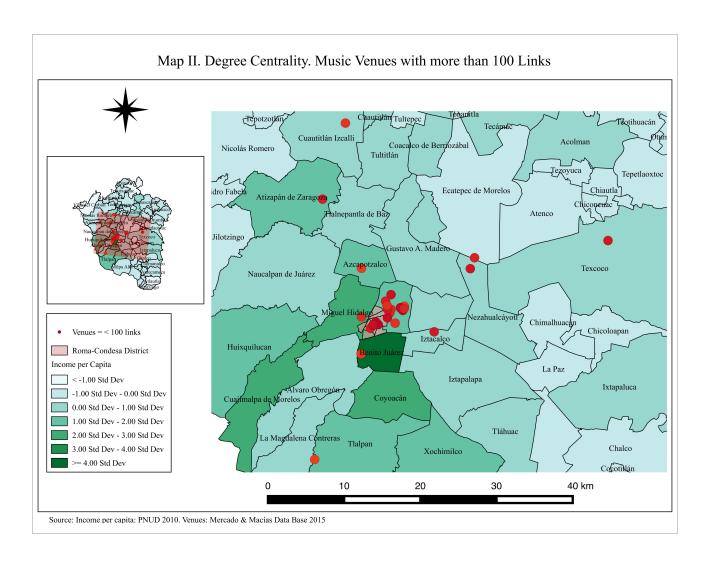
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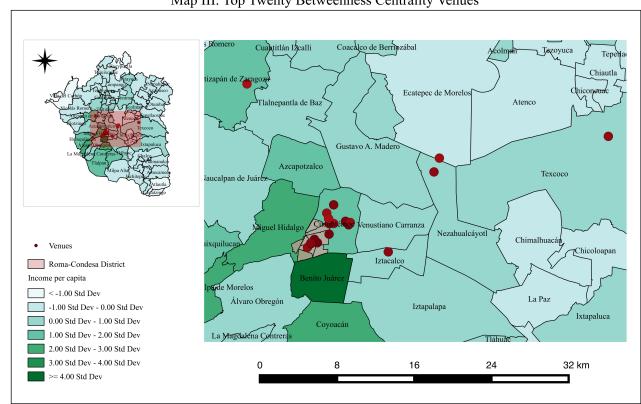
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Map I. Mexico City Metropolitan Area Municipalities. Music Venues Location for Year 2014 and Income per Capita for Year 2010.

Source: Income per Capita: PNUD 2010. Venues: Mercado & Macías Data Base 2015.





Map III. Top Twenty Betweenness Centrality Venues

Source: Income per Capita: PNUD 2010. Venues: Mercado & Macías, Data Base 2015