

Where the Music Lives

A cluster analysis of live music venues in São Paulo's districts

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Background

Live music will soon make its **comeback** after almost two years on a hold due to the Covid-19 pandemic.

In **preparation** for this pause to end, and with expectations of a **spike in the demand** for this kind of entertainment, having an overview of the **current state of the music venues** in a lively city such as São Paulo can be insightful for people in the live music business.

A **cluster analysis** with the k-means algorithm can be helpful in this scenario.



Stakeholders

- Investors
- Booking agents and managers
- Music venues
- Music events companies

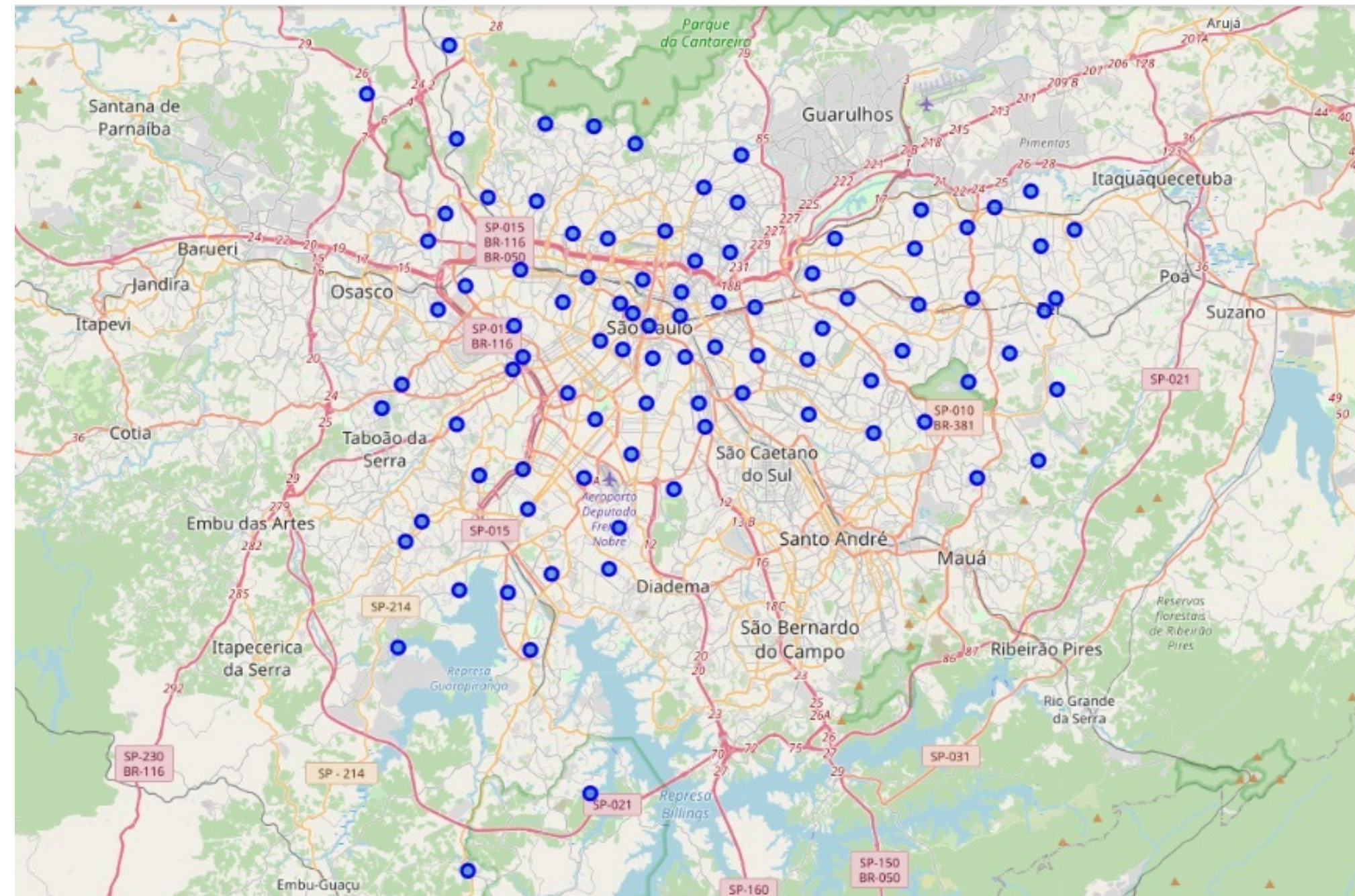


Data

- São Paulo districts and their geographical coordinates
- Music venue data from Foursquare API

São Paulo Districts

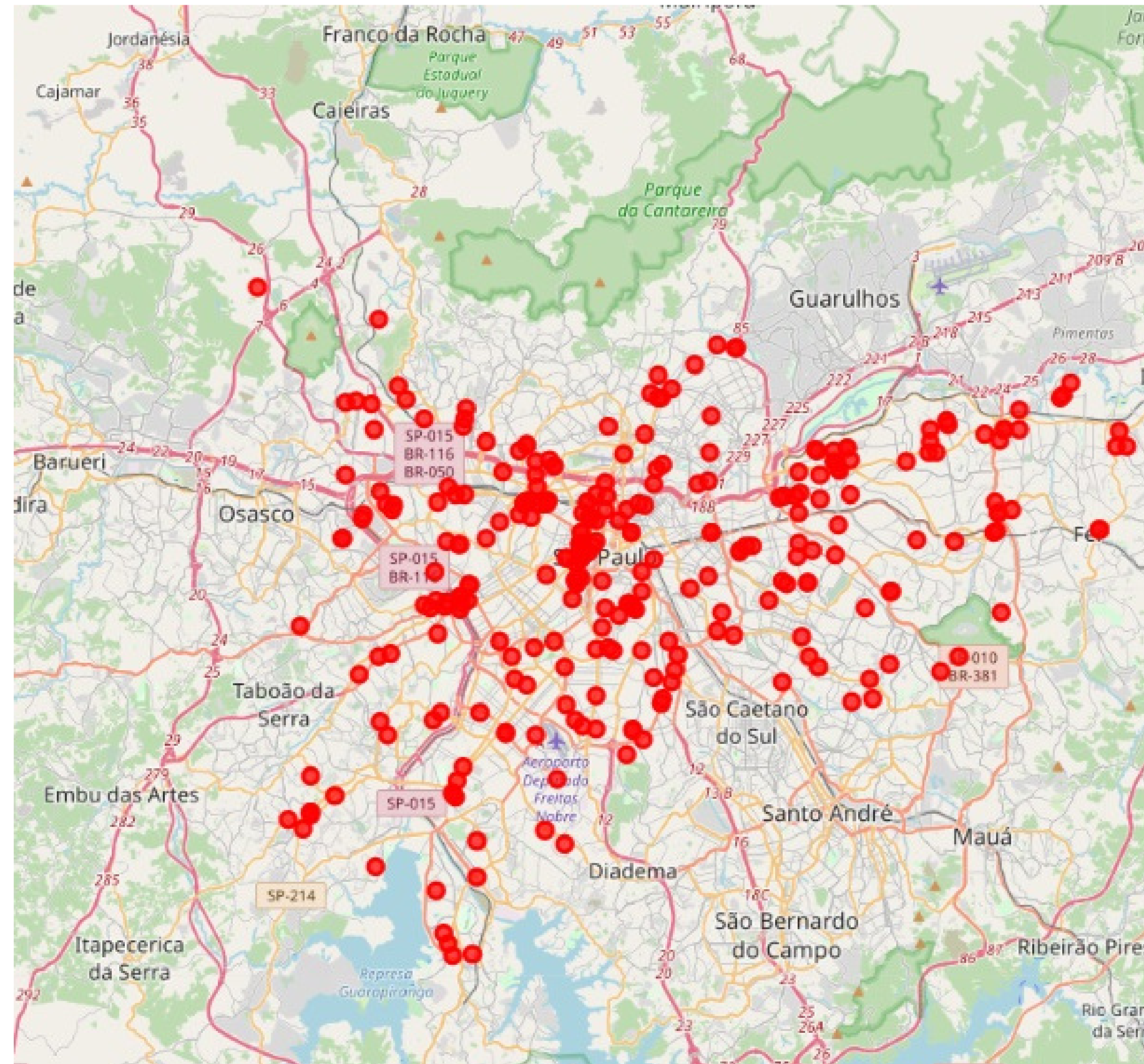
96 districts mapped out



Music Venues

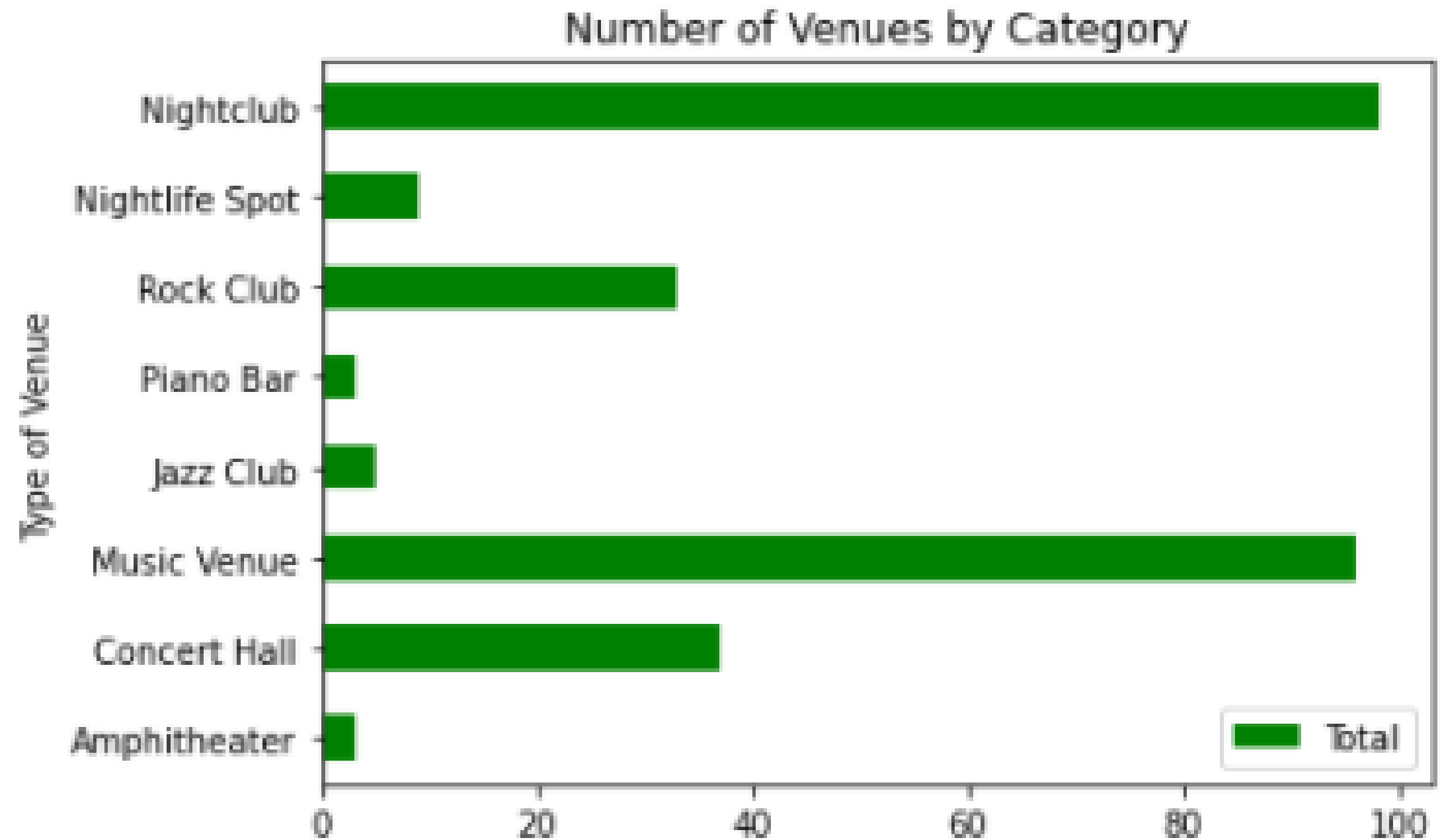
267 unique music-related venues across 8 categories:

- Amphitheater
- Concert Hall
- Music Venue
- Jazz Club
- Piano Bar
- Rock Club
- Music Festival
- Nightlife Spot
- Nightclub



Music Venues

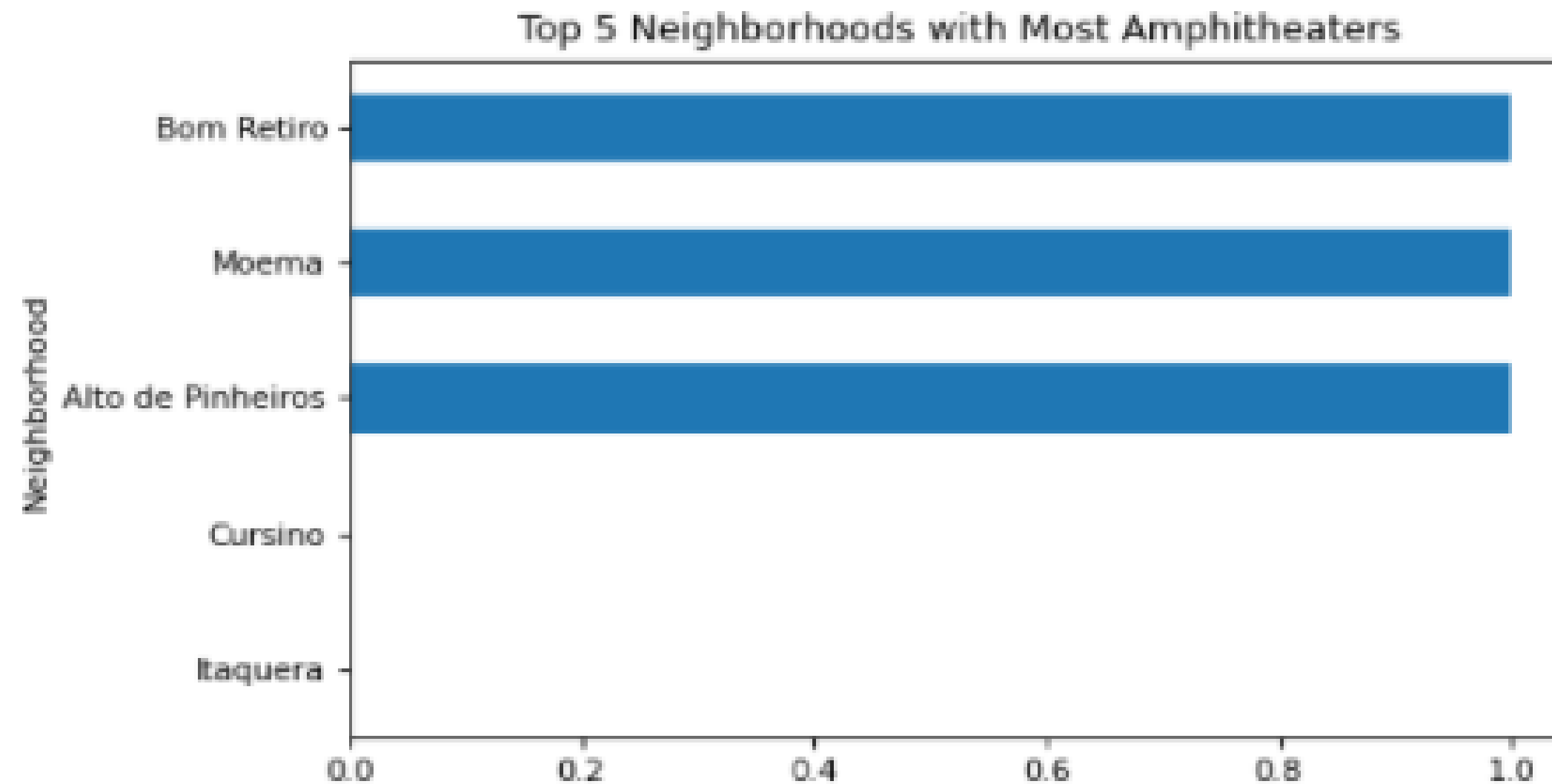
Most common
venues found:
nightclub and
music venue





Music Venues

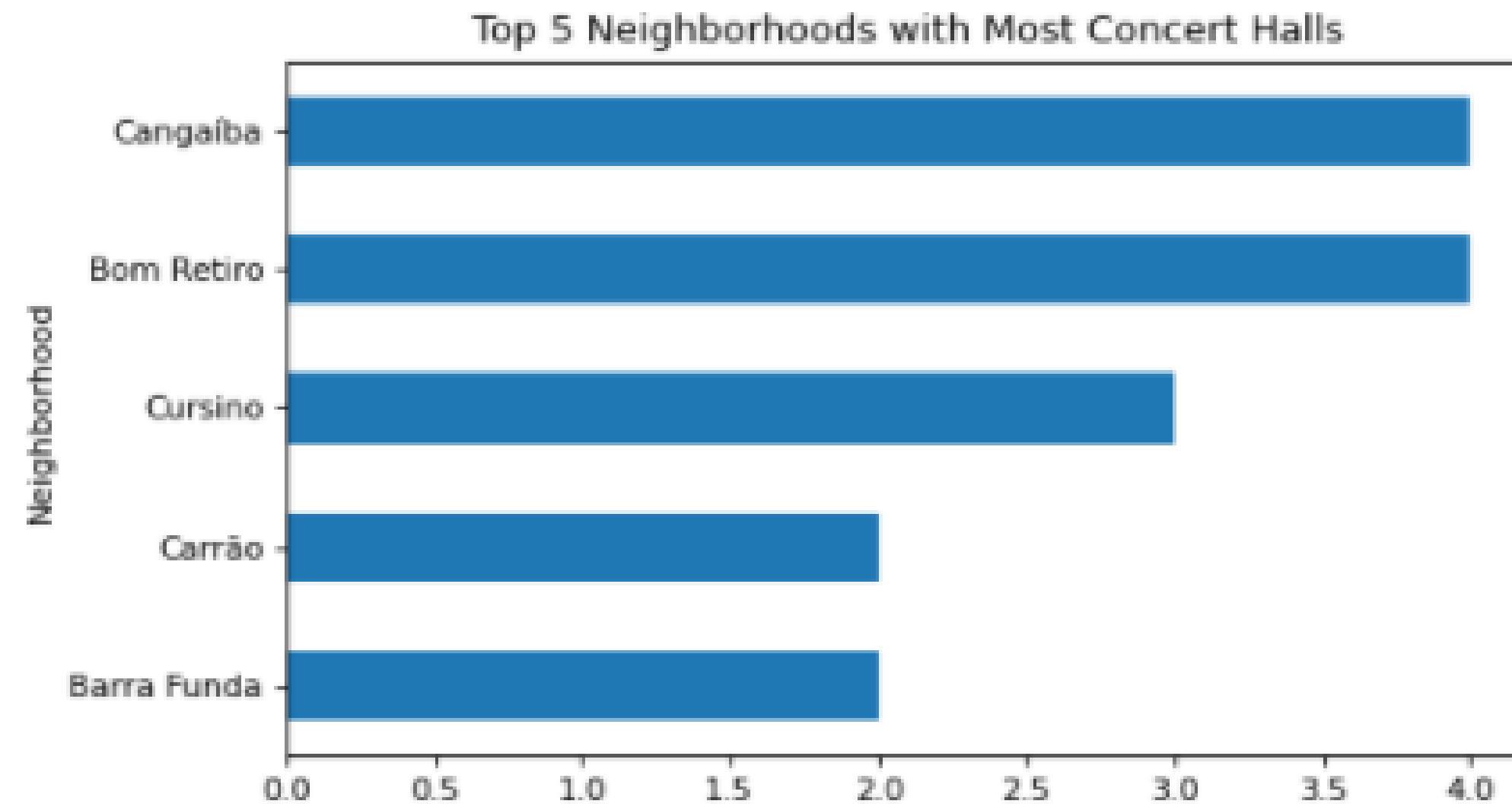
Neighborhoods
with most
amphitheaters





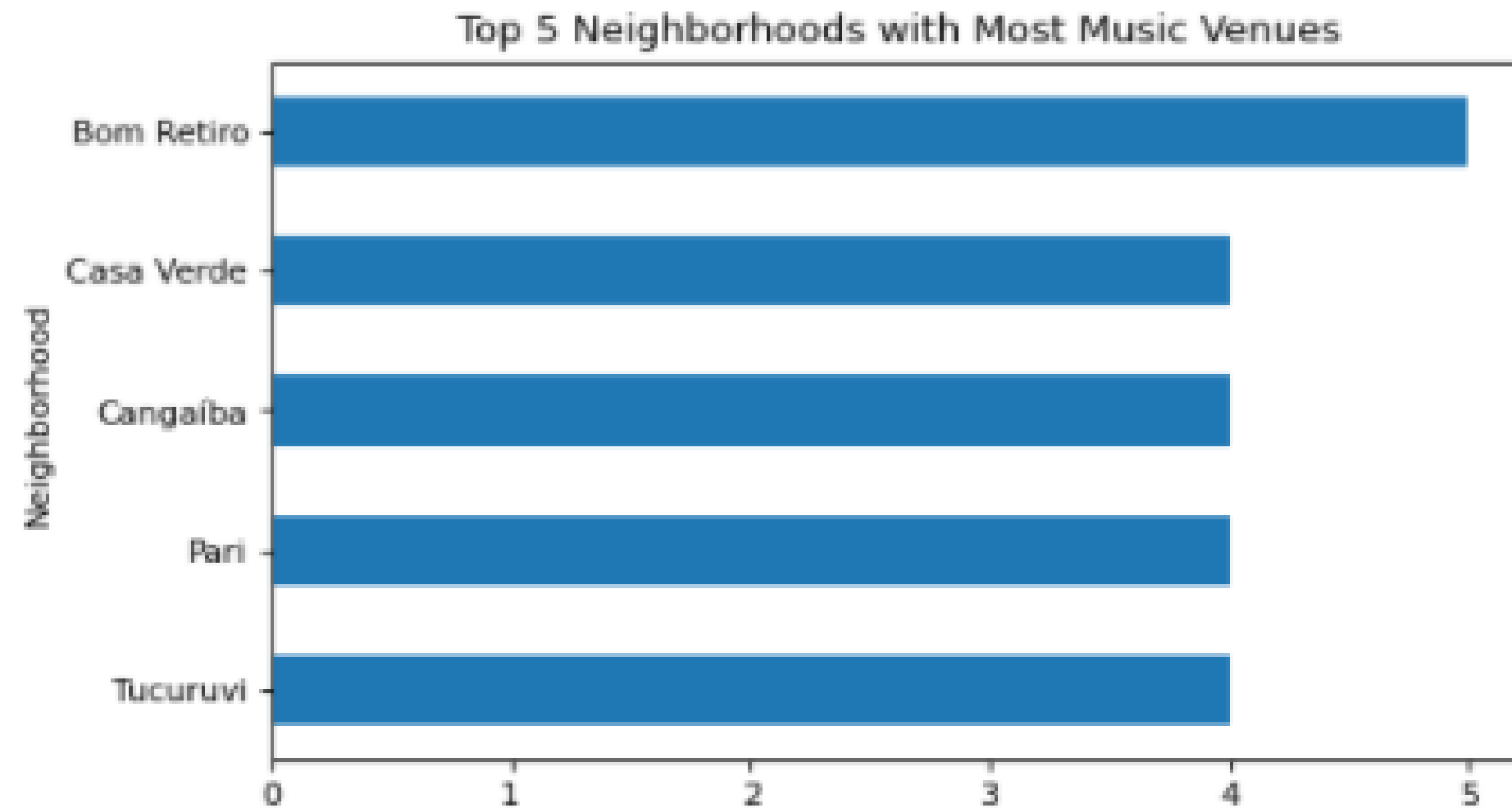
Music Venues

Neighborhoods
with most
concert halls



Music Venues

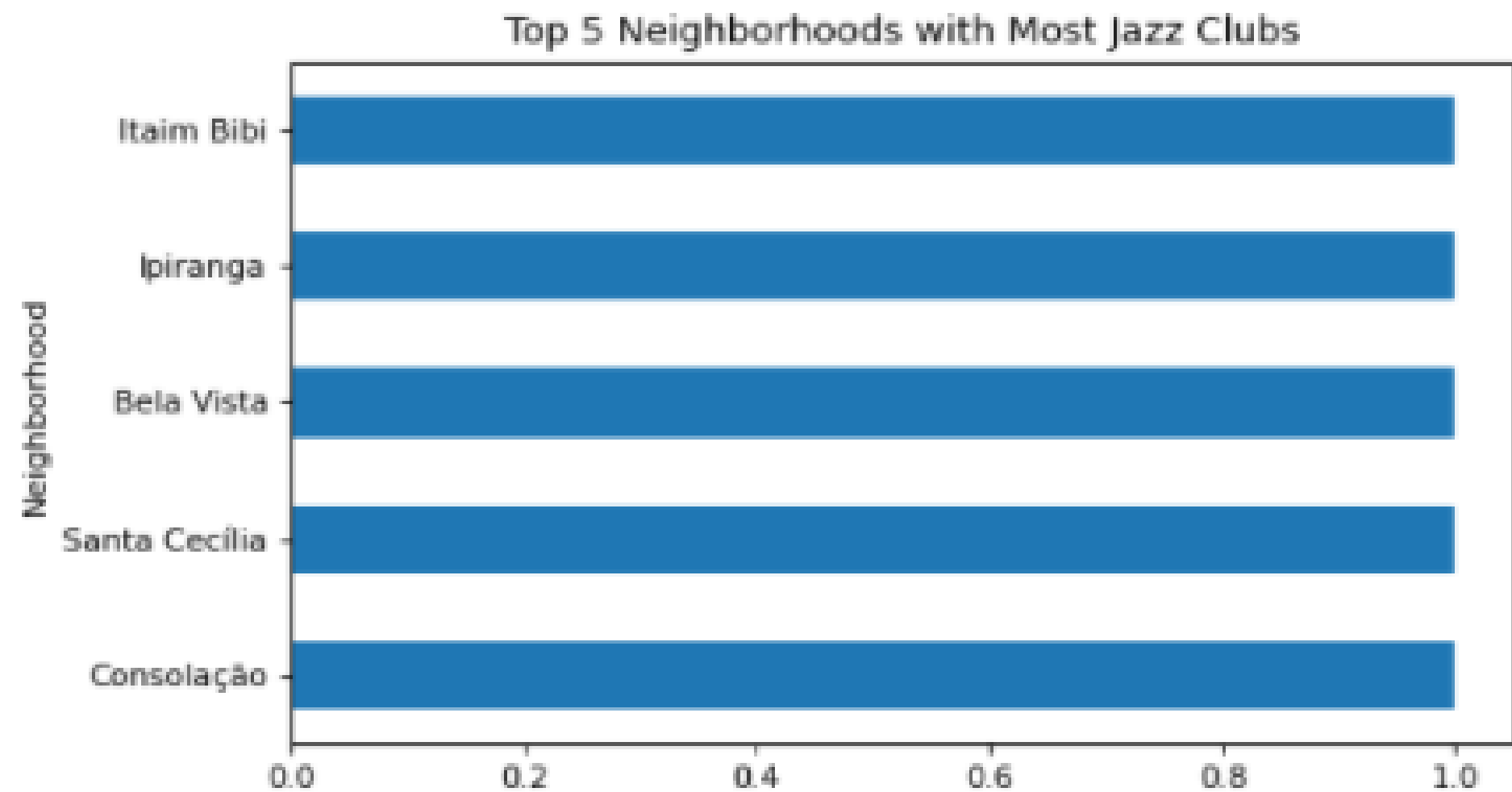
Neighborhoods
with most
music venues





Music Venues

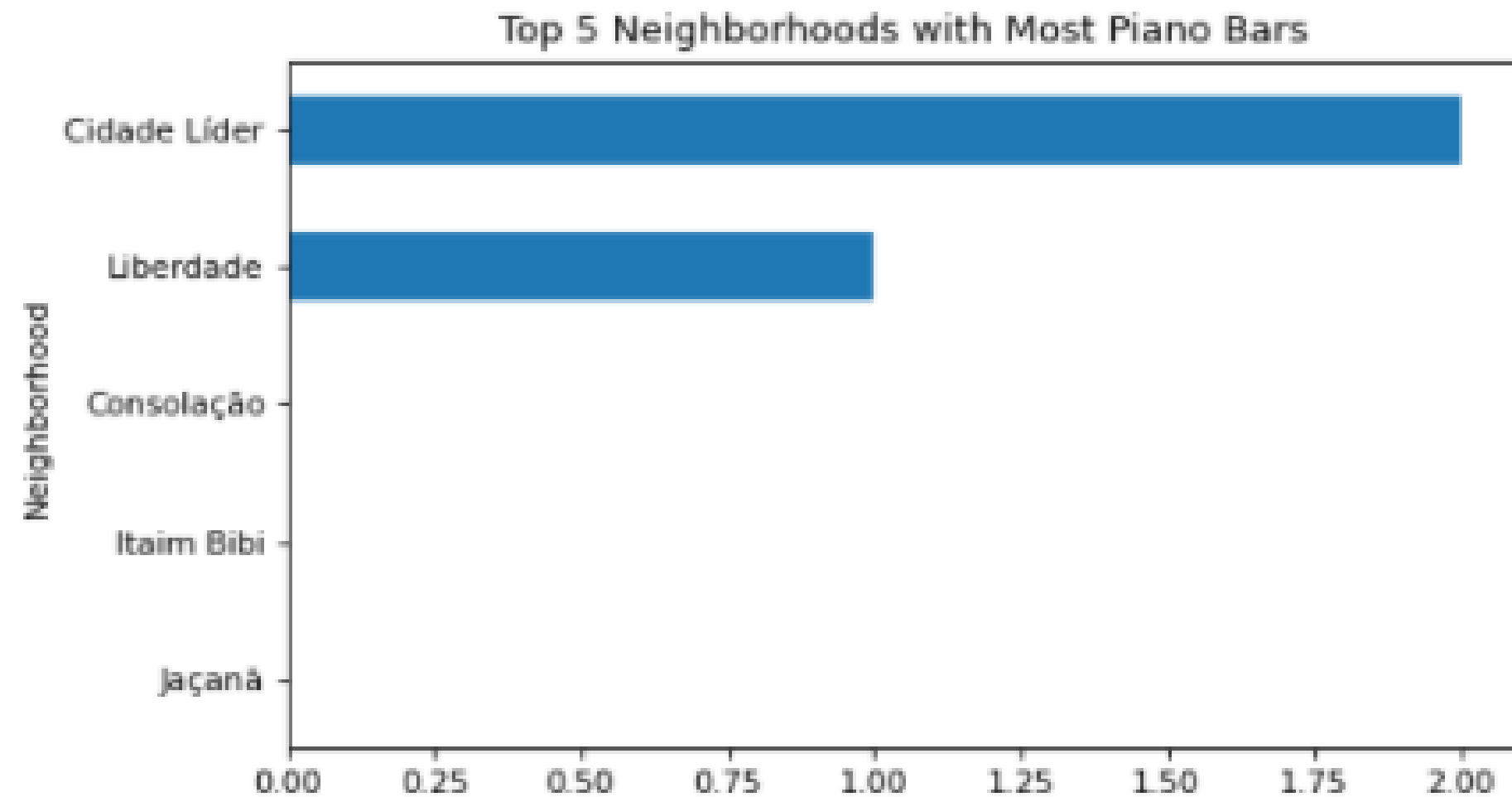
Neighborhoods
with most
jazz clubs





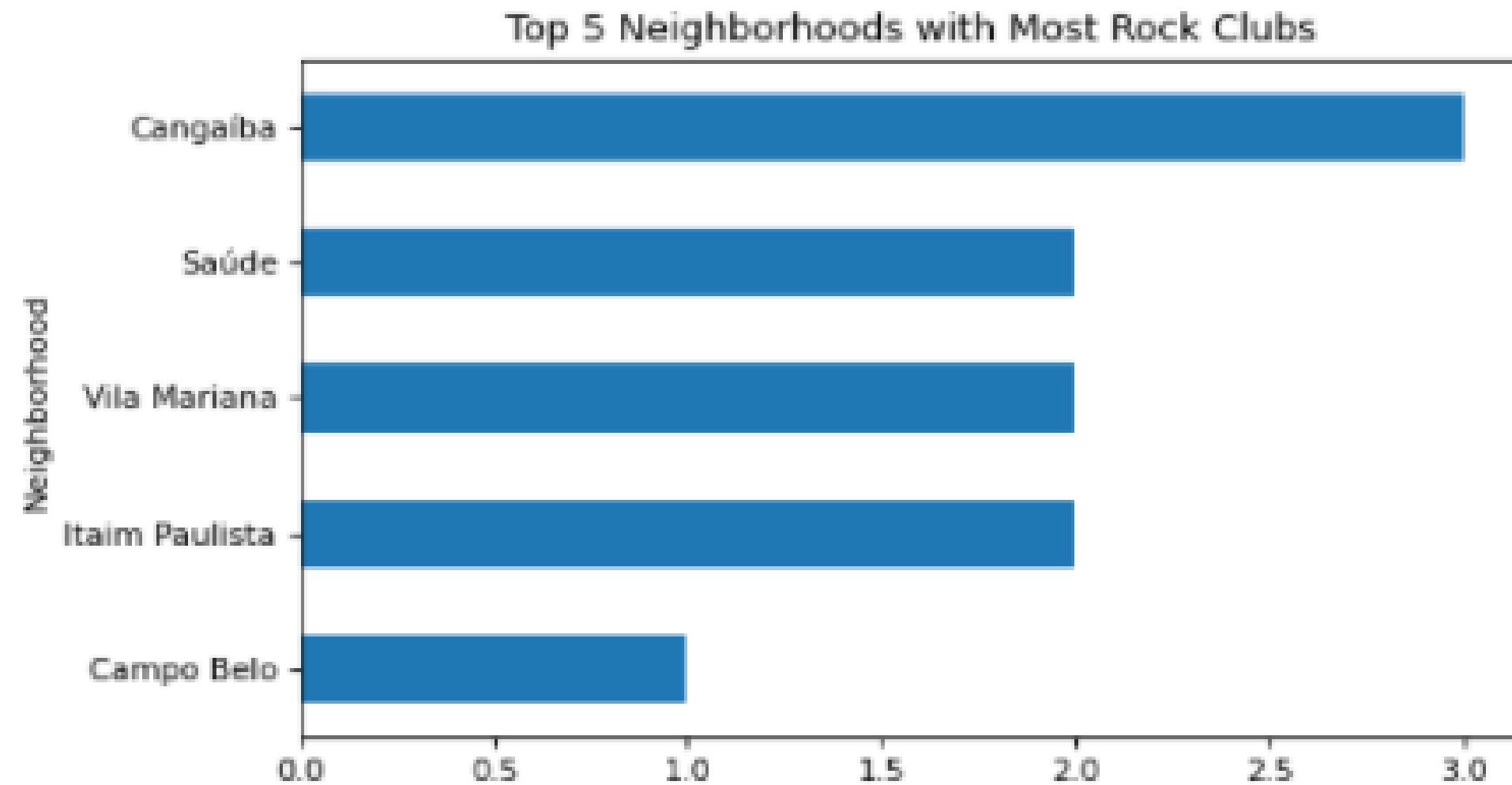
Music Venues

Neighborhoods
with most
piano bars



Music Venues

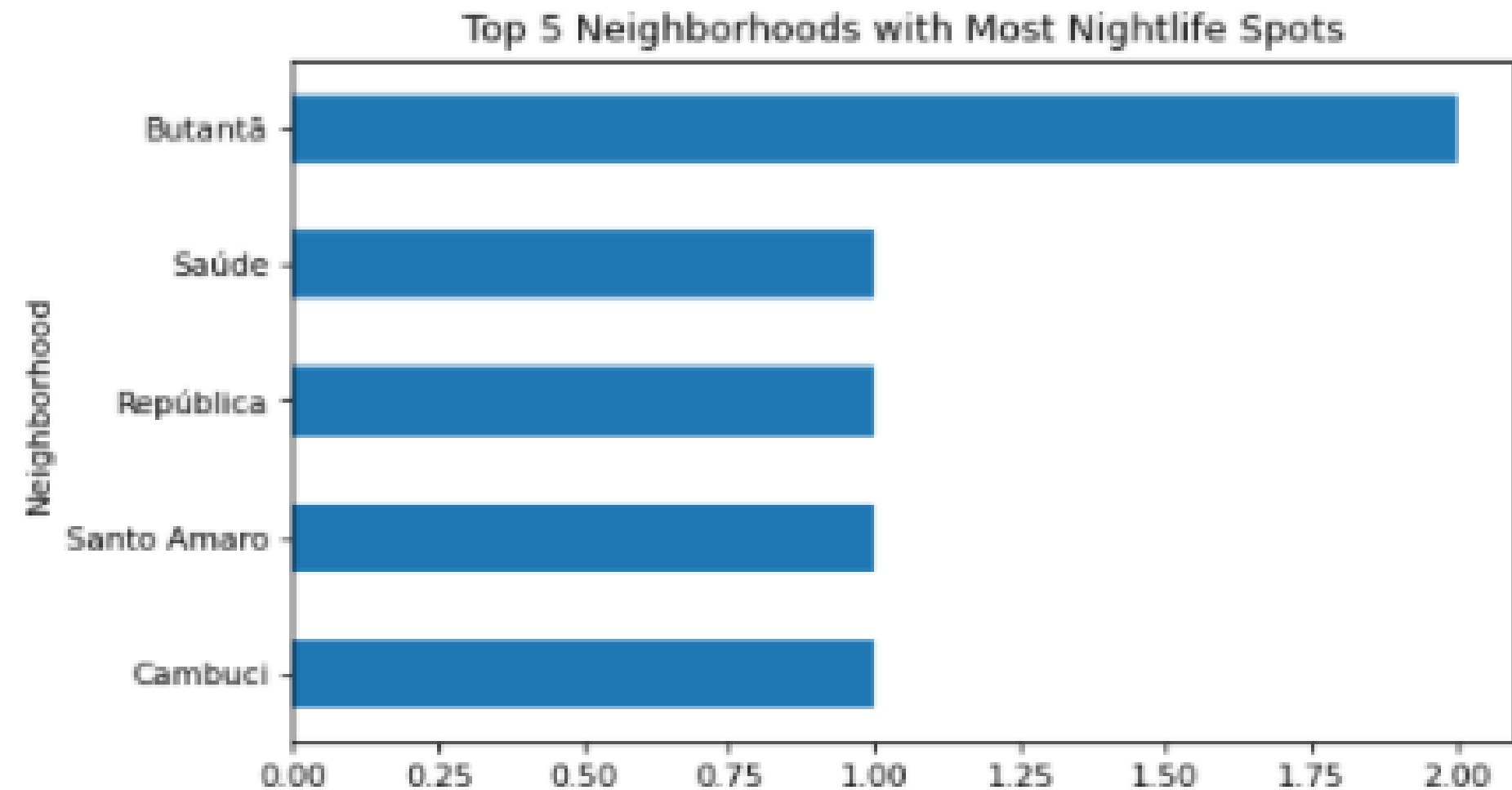
Neighborhoods
with most
rock clubs





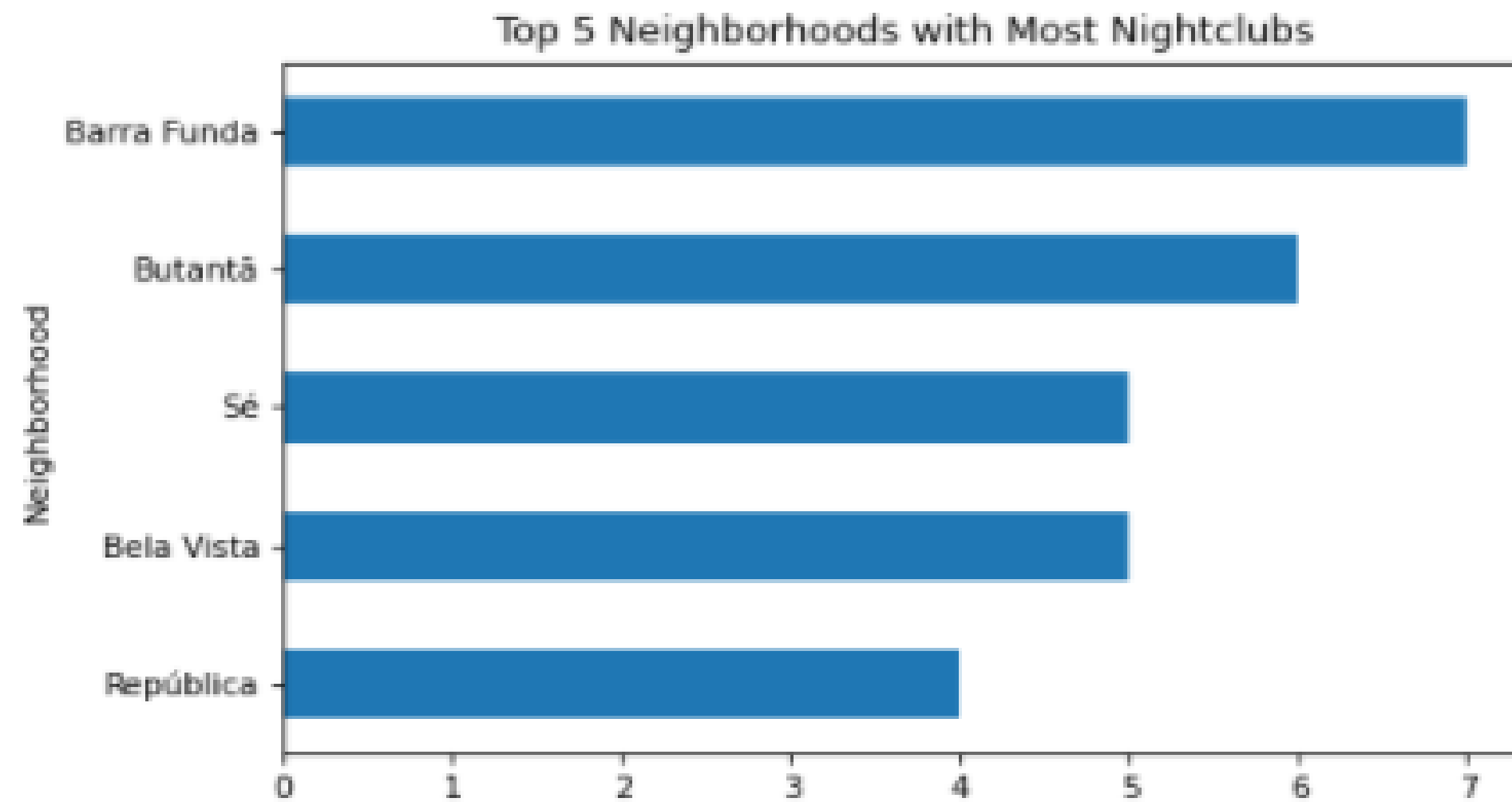
Music Venues

Neighborhoods
with most
nightlife spots



Music Venues

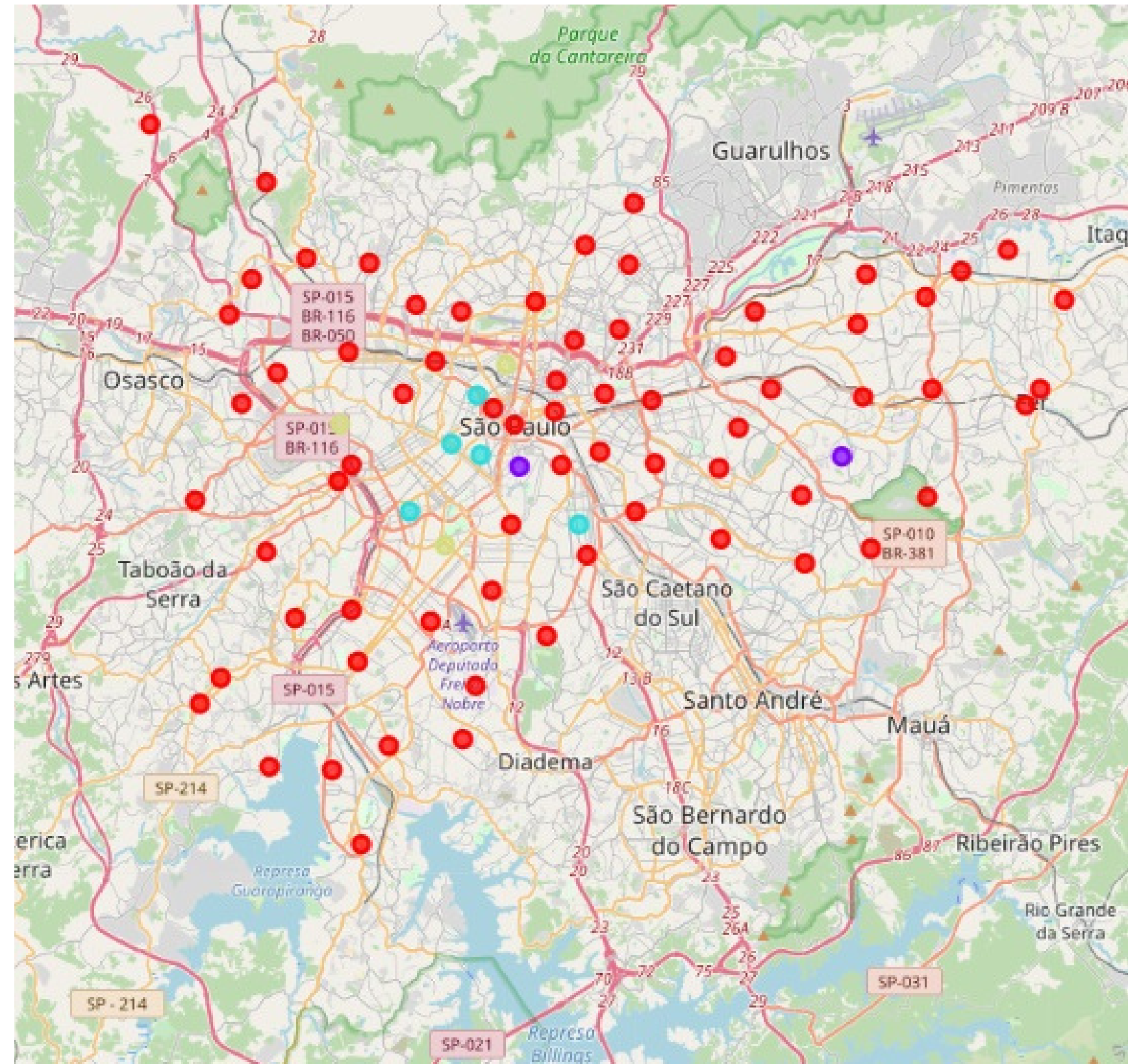
Neighborhoods
with most
nightclubs



Cluster Analysis

Music venues in São Paulo were clustered by the K-means algorithm into **4 clusters**.

A large cluster is spread all over the city and the other **three small clusters** are around the central area.

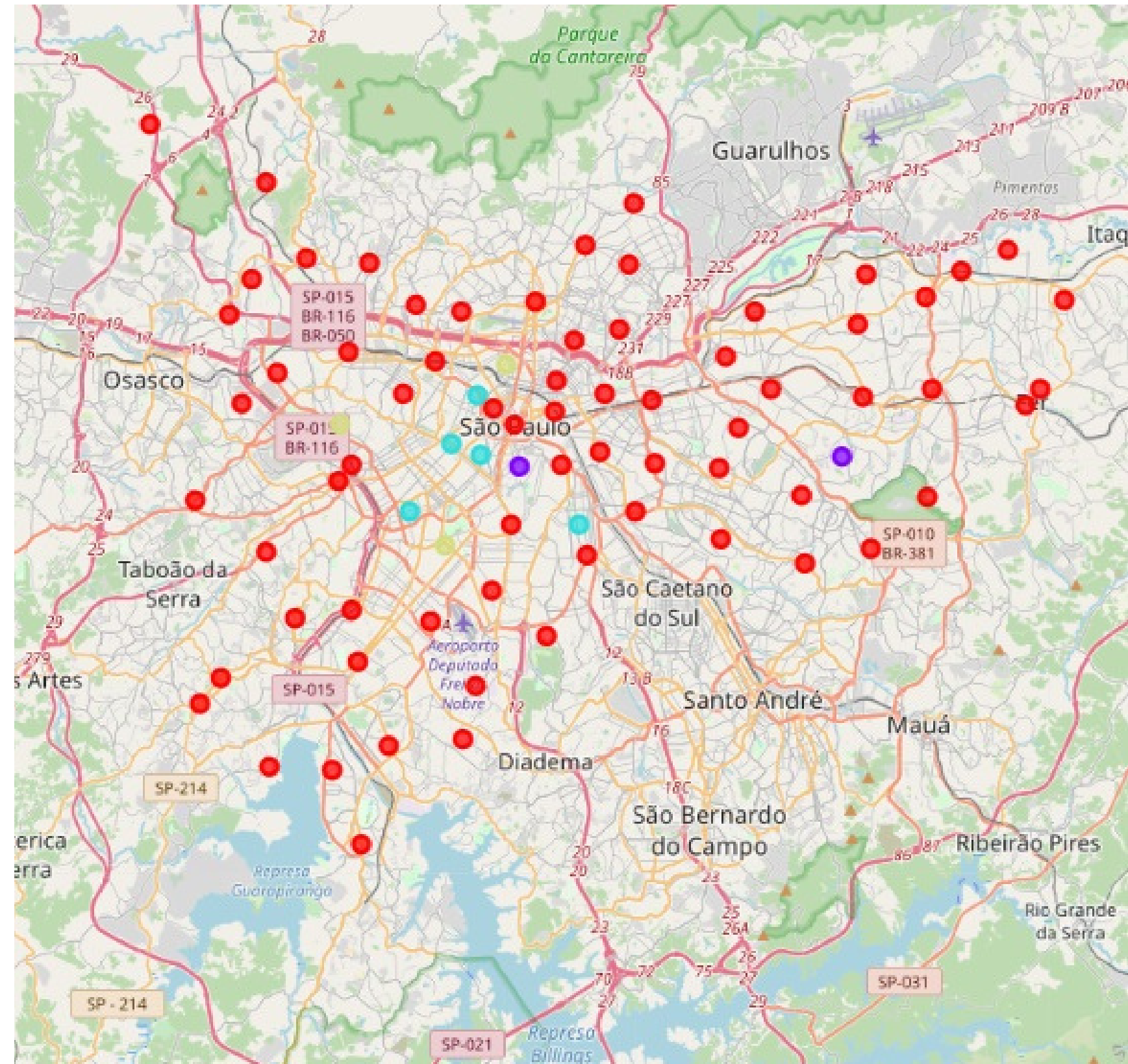


The Clusters

Music Mixing

The largest one, represented in red.
It's also the most diverse.

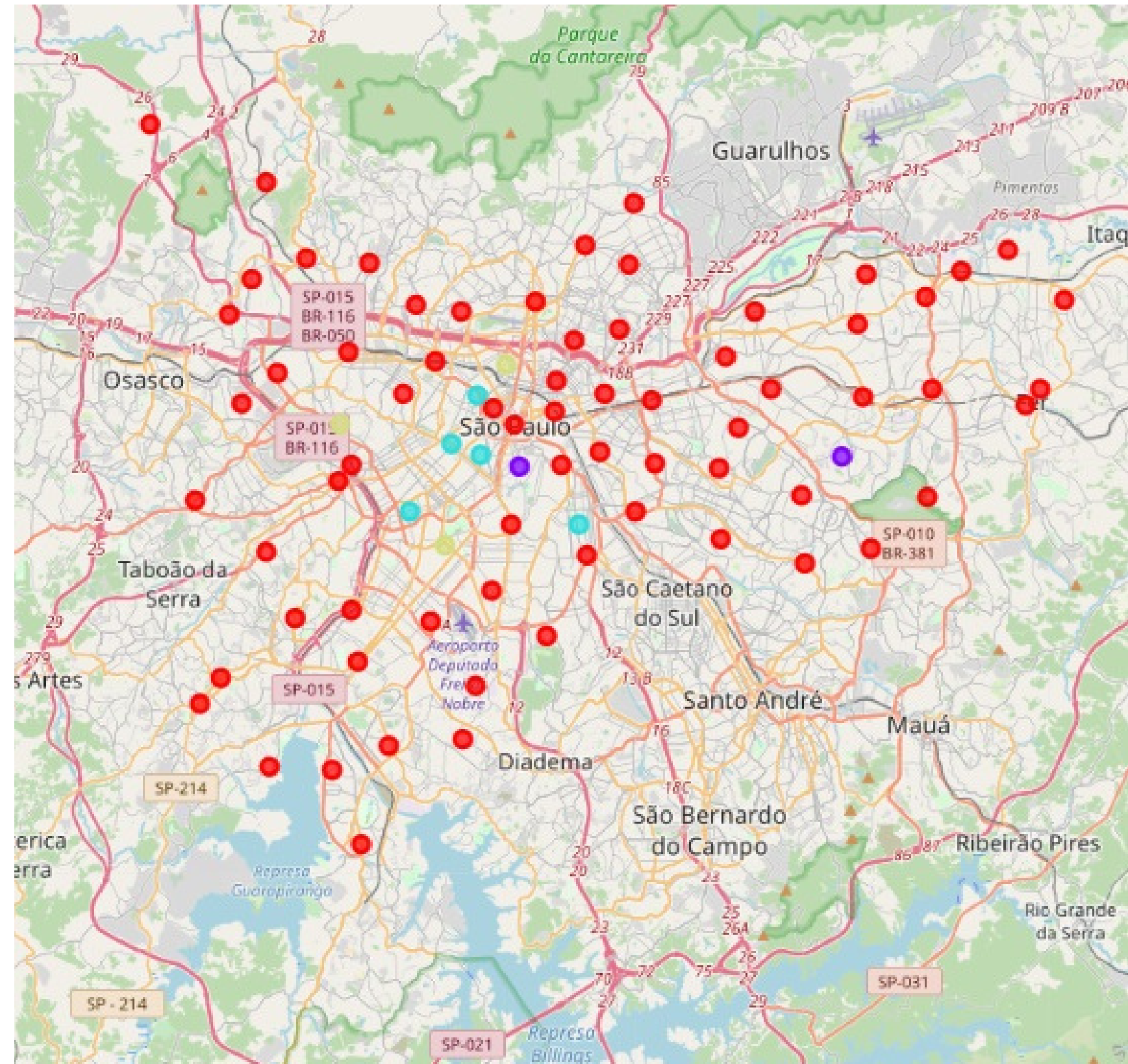
There are **69 neighborhoods** and no prevalent music venue category: rock clubs, concert halls, nightclubs, nightlife spots, piano bars and general music venues can be spotted here.



The Clusters

A Bit of Piano

This small cluster, **represented in purple**, distinguishes itself from the others by the recurrency of **piano bars** as the first most common venue.

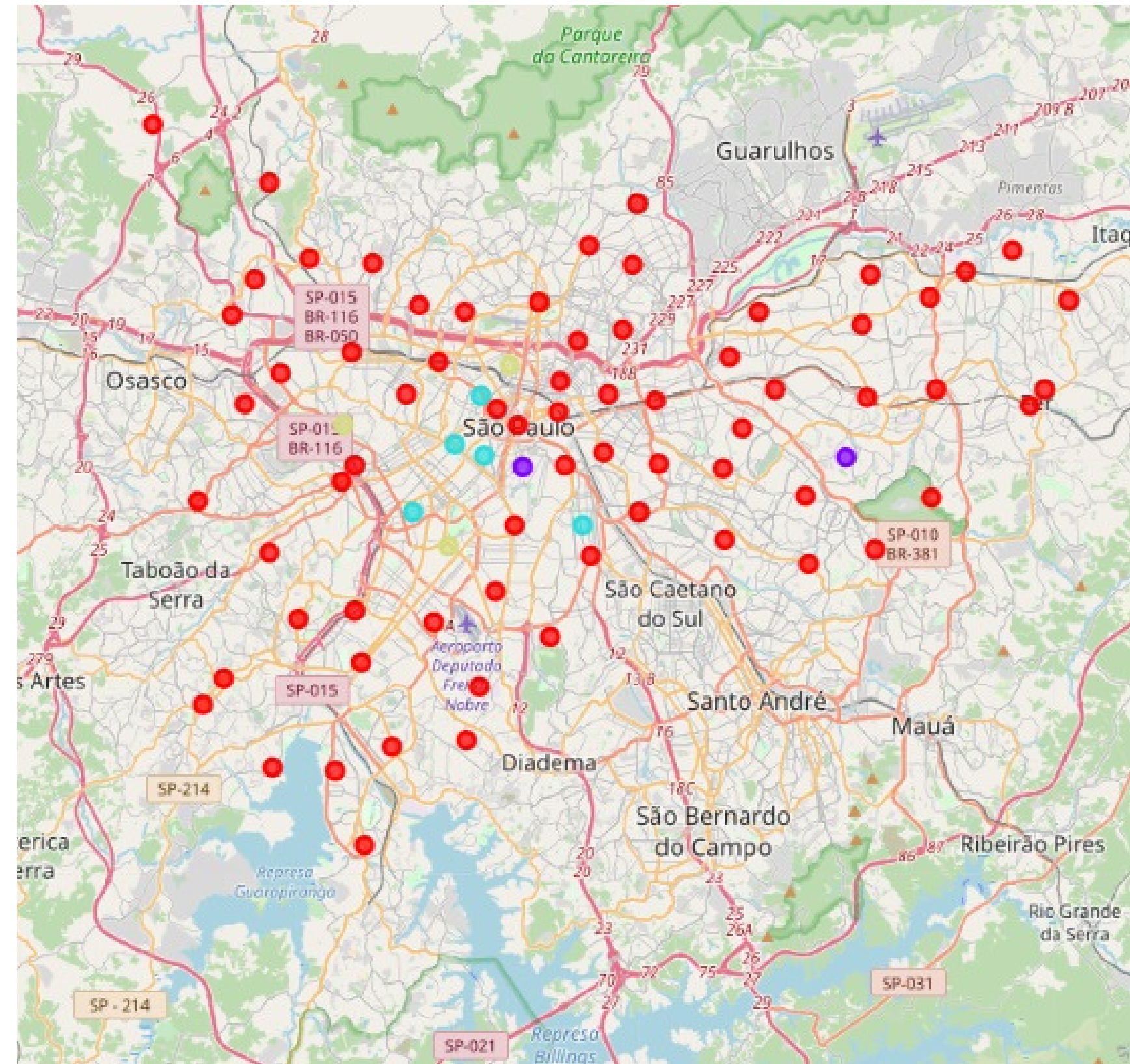


The Clusters

All That Jazz

Represented in light blue, another small cluster and another distinct feature.

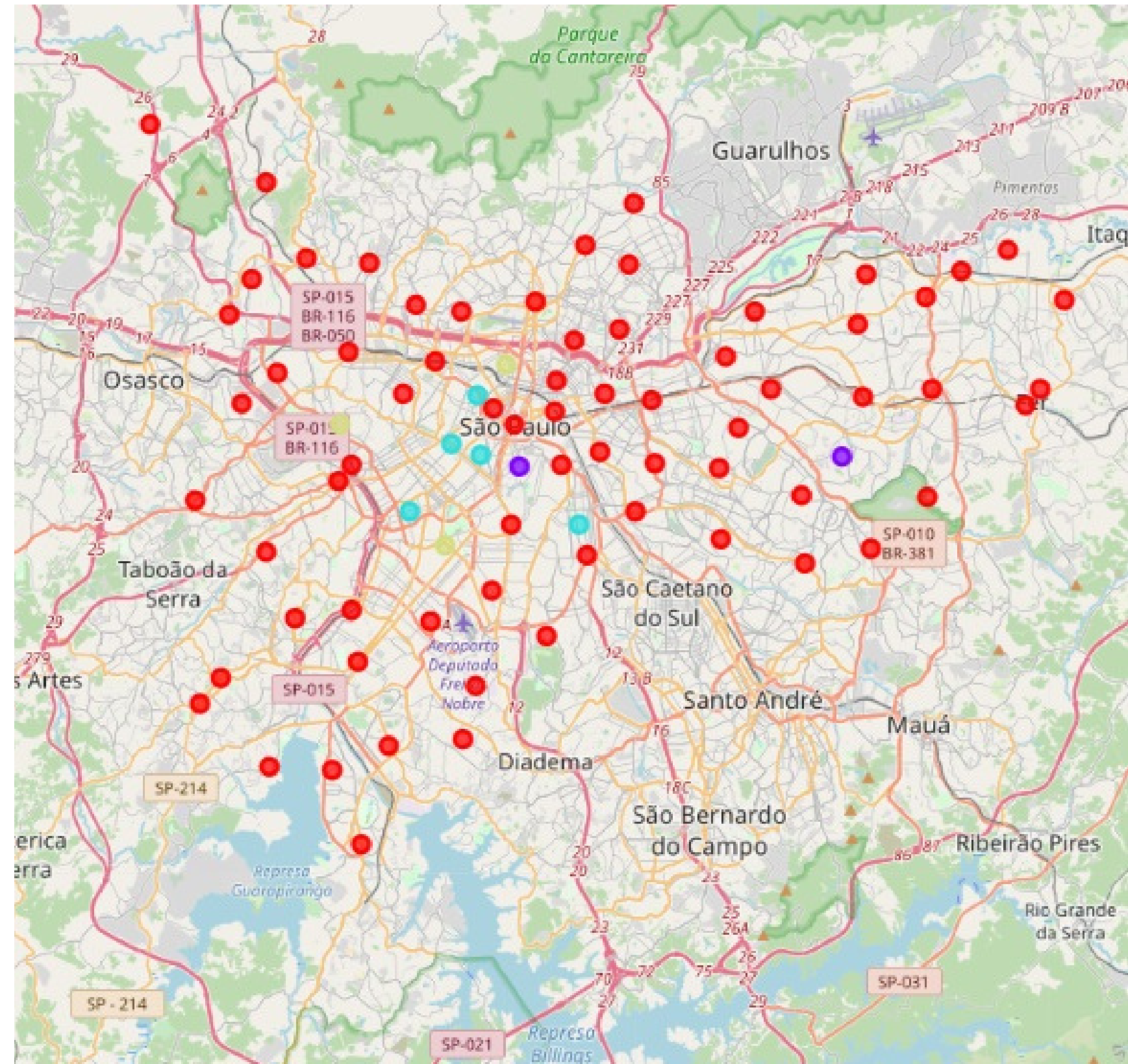
This time, what makes this cluster unique is the number of **jazz clubs** as the most common music venue in all the neighborhoods.



The Clusters

For the Crowds

The final cluster, in **beige**, has also a very clear pattern, with amphitheatres being the first most common venue, concert halls being the second one and regular music venues being the third.

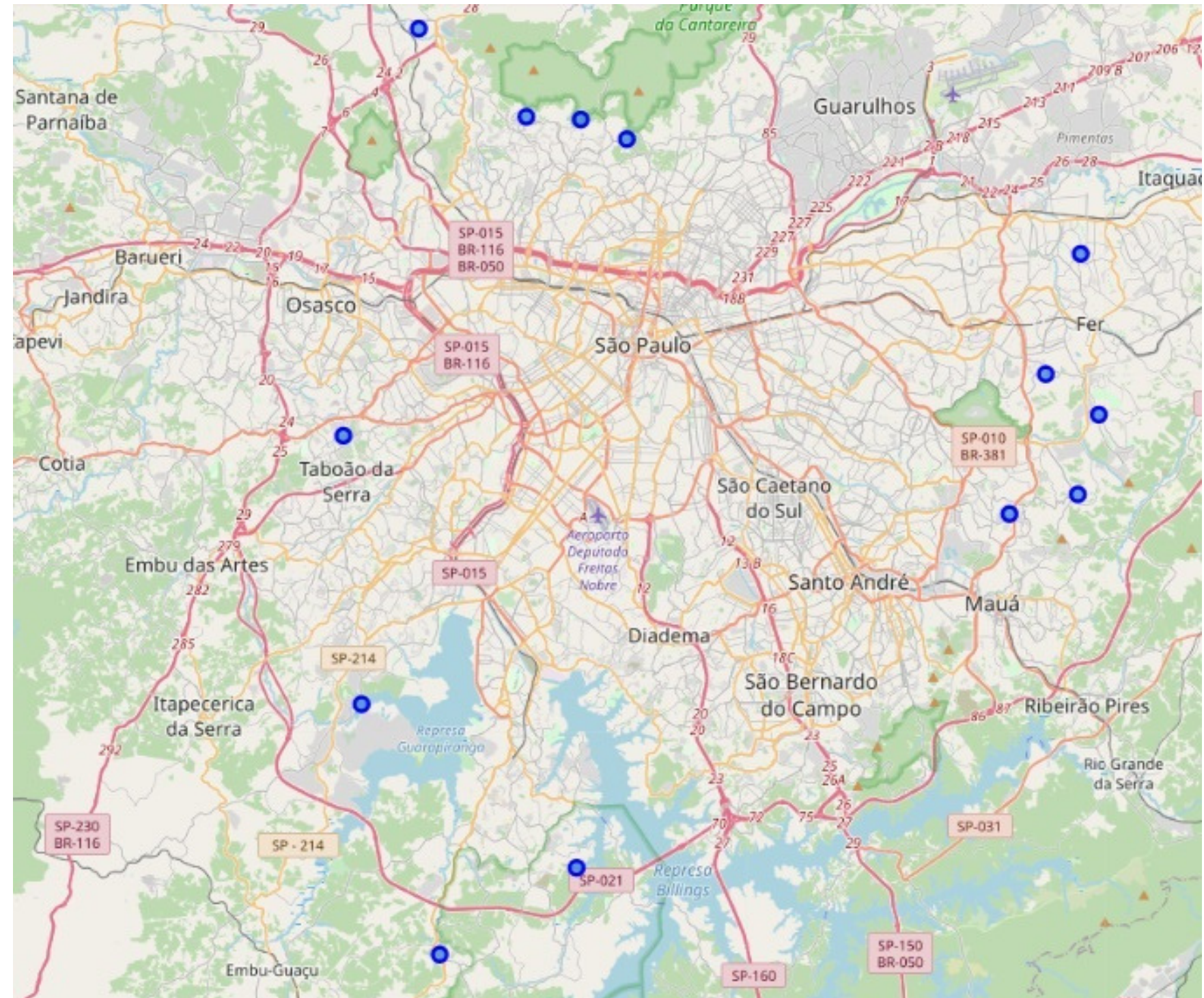


The "Missing" Cluster

The Sound of Silence

This fifth group of neighborhoods, that was left out from the algorithm analysis, has two features in common.

Besides having **no music venues at all**, they are located in the extremes of the city of São Paulo, as shown in the map below.





So what?

From the previous results, we can have insights on some
challenges and opportunities



Challenges

High competition

Music Mixing cluster is essentially diverse, as it has several types of music venues, and **great in number**.

This means that **competition for the attention** of the public is high. **Standing out** in the eyes of the customers is the way out to thrive in such a crowded scene.



Challenges

Investment in a time of crises

Improvements for standing out can require **financial investments**, and for music venues this can be critical in a time when many of them have been struggling with **little or no revenue** at all.



Opportunities

Niche venues and experimentation

Both the *A Bit of Piano* and *All That Jazz* clusters rise as niche clusters. The areas where they are located could potentially bring opportunities for experimenting with other **niche-oriented venues**.



Opportunities

The hotspot

The cluster profiled as *For the Crowds* can potentially be a **hotspot in the reopening** in the post pandemic, since it distinguishes from the others for the music venues with **larger capacities**, probably the kind of live music entertainment that many people are more eager to resume.



Opportunities

Equal access to live music

The “missing” cluster, *The Sound of Silence* is the one with no music venues. However, by no means this is equivalent to non-existent demand for music-related venues. These neighborhoods are farthest from the city centre and usually are poorer areas **dismissed by public policies and commercial ventures.**

Therefore, these areas should be seen as a **business opportunity** and a chance to assure equal access to live music for people in the whole city, regardless of where they live.



Detailed Analysis

- Notebook
- Report