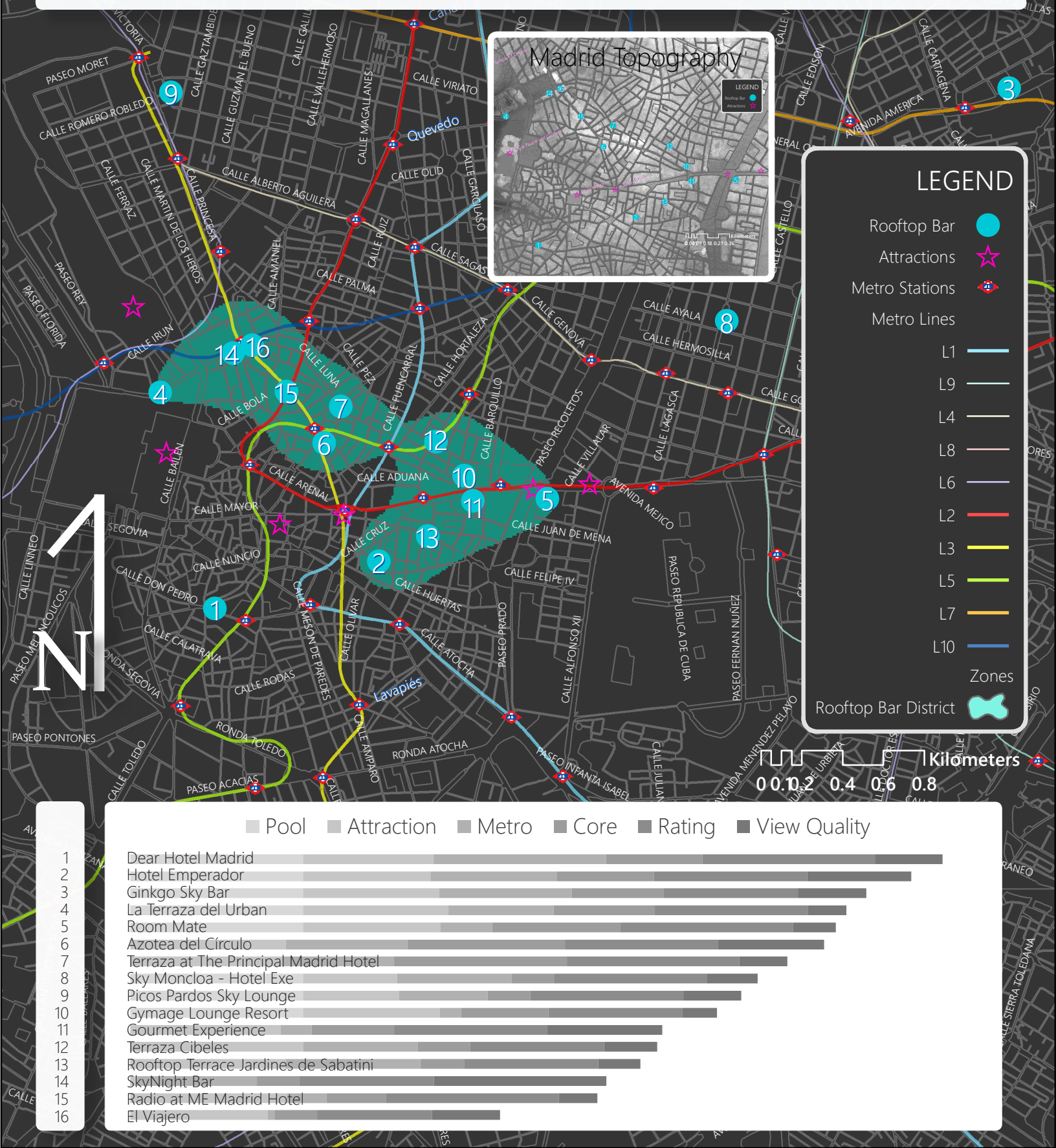


## A SPATIAL, TOPOGRAPHIC, AND QUALITATIVE RANKING

Rooftop bars in Madrid are an important part of enjoying the beautiful city. These bars have been ranked based on their viewing horizon, swimming pool, distance from metro station, distance from a major attraction that can be seen from the roof, their Trip Advisor Ratings, and how central they are to the “rooftop pool district”. All data was acquired from the Madrid Urban Atlas (2018).

Map by: Dodds, Mathew | For: GIS II, SFU Fall '19



# ROOFTOP BARS IN MADRID

## A SPATIAL, TOPOGRAPHIC, AND QUALITATIVE RANKING

A Geographic Information System (GIS) can be overwhelmingly powerful. These systems can be used for good, for evil, for utility... the opportunities are truly endless. Amidst all of this, however, is perhaps a deficit of "fun". That's right. GIS needs to be more fun. Not just when implementing a GIS, but also when using its products. When is the last time anyone saw a highly scientific map that unlocked a plethora of fun ideas for them? Honestly, its been quite a long time. For that reason, the reason of "fun", I have made a map for your perusal. This is a map that holds the secrets to the most beautiful city of Europe: Madrid, Spain. In particular, this map will guarantee that upon your next visit to Madrid, you will be able to navigate and plan a thrilling bar-hop to the most ideal rooftop bars in this gorgeous Spanish city.

### What makes a rooftop bar good?

Well, the first thing has to be whether or not this bar has a swimming pool. Madrid can get to extremely high temperatures during the summertime, so its important that one has a nice place to cool off while enjoying their margheritas. For that, pools get a 1/6 weight in the final index score. Then, view quality is extremely important. What is the point of going to a rooftop bar and not enjoying a spectacular view of the entire city? Well, using some satellite imagery, topographic data, building height data and some good ol' trigonometry, I was able to develop a rating system for the view quality from these rooftop bars. This score is based on the relative height of the rooftop to the surrounding 450 metre buffer zone, minus the weighted height sum of all possible obstructions within 150m. The view quality index receives a well-deserved weight of 1/6. Then, nearby attractions were considered. Who doesn't want to look at Madrid's most famous attractions? Madrid is famous for places like Plaza De España. So, the distance from viewable attractions within 450m were summed, indexed, and given a weight of 1/6. When you're drunk, you can't drive! So, distance from their nearest metro station was given an equal weight of 1/6 again. Then, I thought, who just goes to one bar? No, if you're having a drink in Madrid, you're going to want to go to many bars. Thus, I created a rooftop zone with the kernel tool, calculated the centrality of each bar, then gave this an indexed weight of 1/6. Last but not least, the Trip Advisor rating. If a bar sucks, and everyone knows it, don't go there. If people love it, then go there. Hugely important factor, thus the bar's Trip Advisor ratings were given a weight of 1/6. Attached below are the results!

By: Dodds, Mathew | For: GIS II, SFU Fall '19

Bar	Floor	Pool	Attraction	Attr. Dist	Metro Stop	Metro Dist	Attraction	Metro	Core	Rating	View	Final
Dear Hotel Madrid	14	1	Temple of Debod	614	Gran Vía - Plaza De España	5	76/100	1	56/100	1	39/100	1
Hotel Emperador	10	1	Plaza Mayor	649	Santo Domingo	38	74/100	73/100	56/100	89/100	60/100	96/100
Ginkgo Sky Bar	12	1	Temple of Debod	542	Plaza De España	34	79/100	77/100	54/100	78/100	40/100	91/100
La Terraza del Urban	7	1	Puerta del Sol	424	Carrera De San Jerónimo - Cedaceros	54	84/100	61/100	58/100	89/100	22/100	88/100
Room Mate Oscar	13	1	Fuente de Cibeles and Gran Vía	529	Gran Vía - Pedro Zero	92	80/100	30/100	74/100	1	25/100	87/100
Azotea del Círculo	7	0	Fuente de Cibeles and Gran Vía	302	Círculo De Bellas Artes	42	90/100	70/100	91/100	89/100	61/100	85/100
Terraza at The Principal Madrid Hotel	7	0	Fuente de Cibeles and Gran Vía	346	Círculo De Bellas Artes	49	88/100	65/100	1	1	28/100	81/100
Sky Moncloa - Hotel Exe	9	1	Temple of Debod	1066	Moncloa	47	55/100	66/100	25/100	89/100	29/100	77/100
Picos Pardos Sky Lounge	8	1	Puerta de Alcalá	1043	Velázquez - Ayala	66	56/100	51/100	25/100	89/100	33/100	75/100
Gymage Lounge Resort	5	1	Puerta del Sol	531	Gran Vía - Callao	115	79/100	12/100	51/100	78/100	20/100	72/100
Gourmet Experience	9	0	Puerta del Sol	365	Gran Vía - Callao	107	87/100	18/100	48/100	89/100	67/100	65/100
Terraza Cibeles	6	0	Fuente de Cibeles and Gran Vía	85	Cibeles	47	1	66/100	30/100	78/100	31/100	65/100
Rooftop Terrace Jardines de Sabatini	7	0	Royal Palace and Gardens	298	Cuesta De San Vicente	33	90/100	78/100	25/100	78/100	24/100	63/100
SkyNight Bar	13	0	Estadio Santiago Bernabéu	2169	Avenida De América - Corazón De María	43	4/100	69/100	25/100	78/100	1	59/100
Radio at ME Madrid Hotel	7	0	Puerta del Sol	286	Santa Ana	101	91/100	23/100	35/100	1	22/100	58/100
El Viajero	3	0	Plaza Mayor	526	Plaza De La Cebada	125	80/100	4/100	25/100	67/100	39/100	46/100