Coffee Quality Analysis

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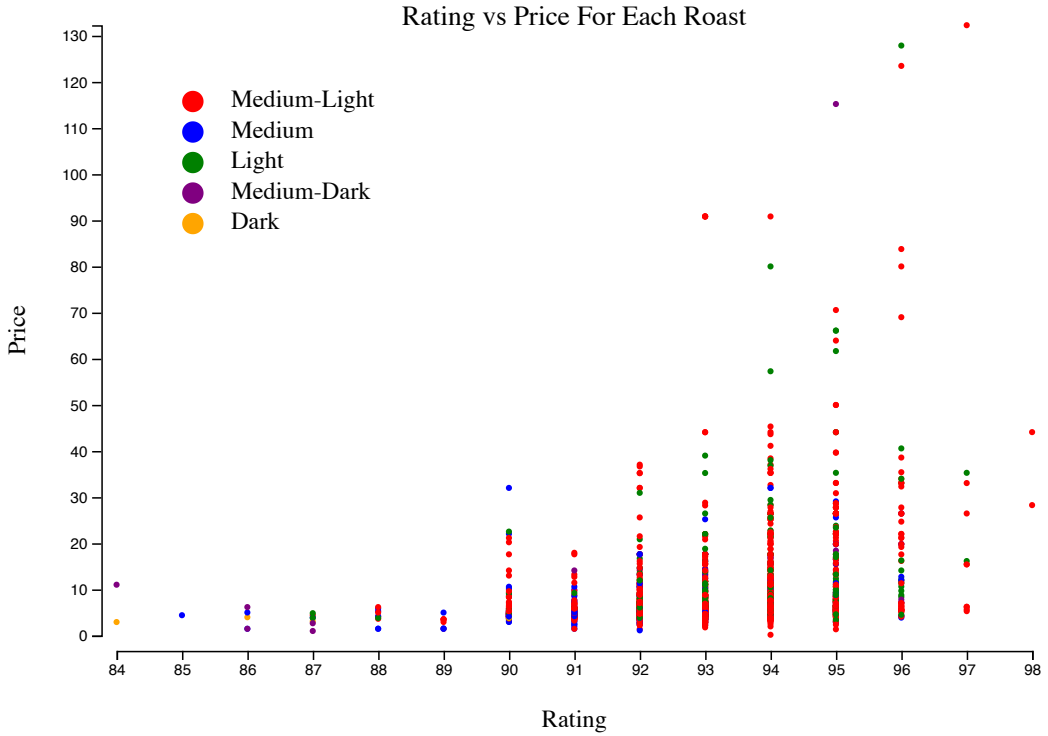
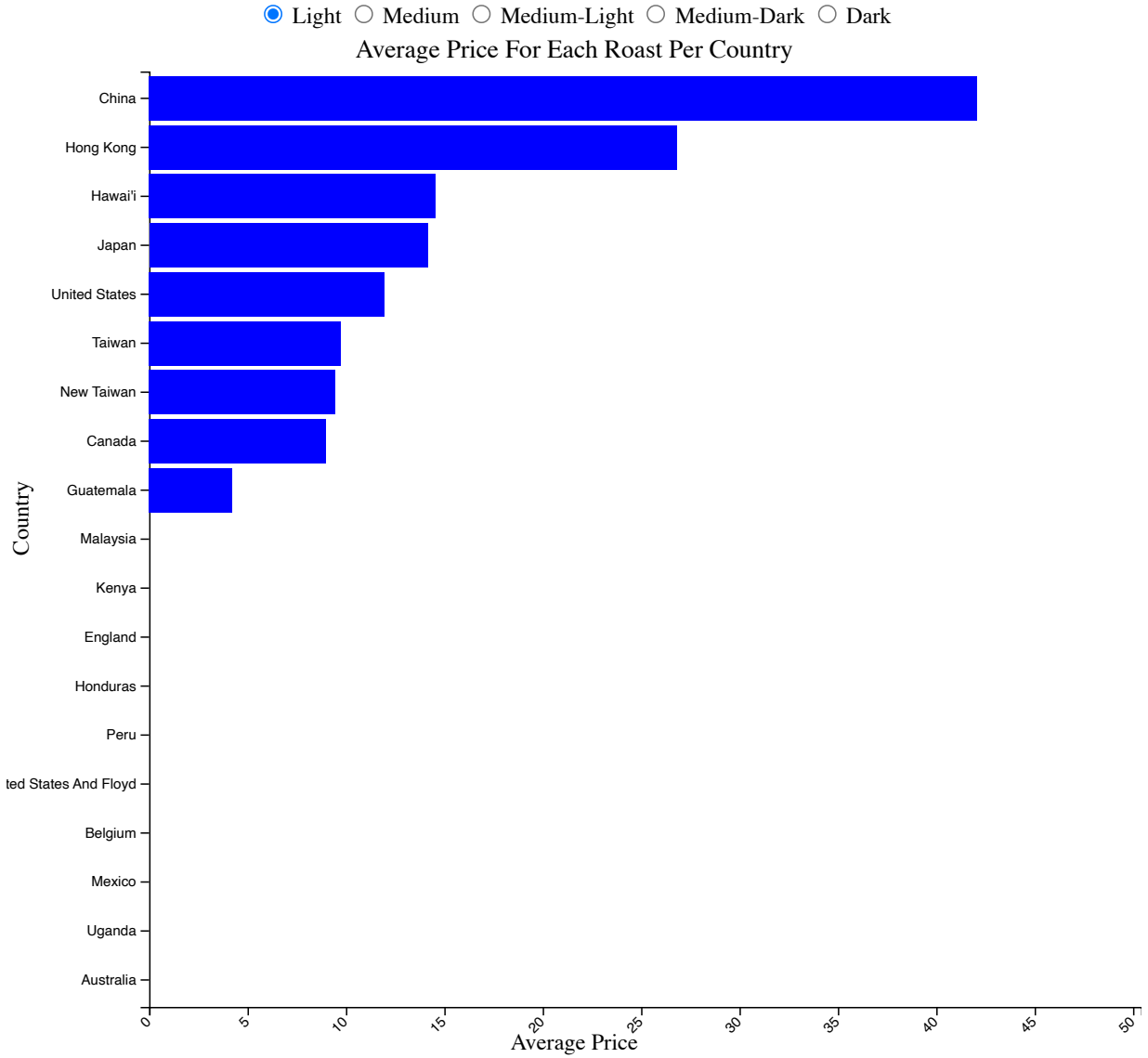
Coffee is arguably one of the most popular drinks in the entire world. This drink is enjoyed by many different demographics of people ranging in all ages since there are so many kinds of styles, and brews of coffee. Because of its popularity, coffee beans are also produced world wide, and each of these places produce different quality beans. The goal of this project is to examine which characteristics contribute to a coffee's quality.

Firstly, coffee has different kinds of roasts which impacts the flavor of the drink. We will analyze the relationship between the rating and price for each type of roast.



This visualization has multiple groups, so the color scheme is a range of different colors in order to easily differentiate each group. This plot contains points and has horizontal and vertical positioning.

As we can see from the scatter plot, there is not too much of a correlation between the price of a coffee and its rating. However, we do see that there are some instances of Medium-Light roast coffees with a higher rating and price. So maybe Medium-Light roasts of coffee dominate the popularity of coffee drinkers and possibly the coffee market. This may suggest that there may be another variable that contributes to a coffee's quality.
We will next take a look at the average prices per roast of coffee that each country processes. Note that these countries are not the origins of the beans, rather where they are processed to bring out the best flavors through different techniques.

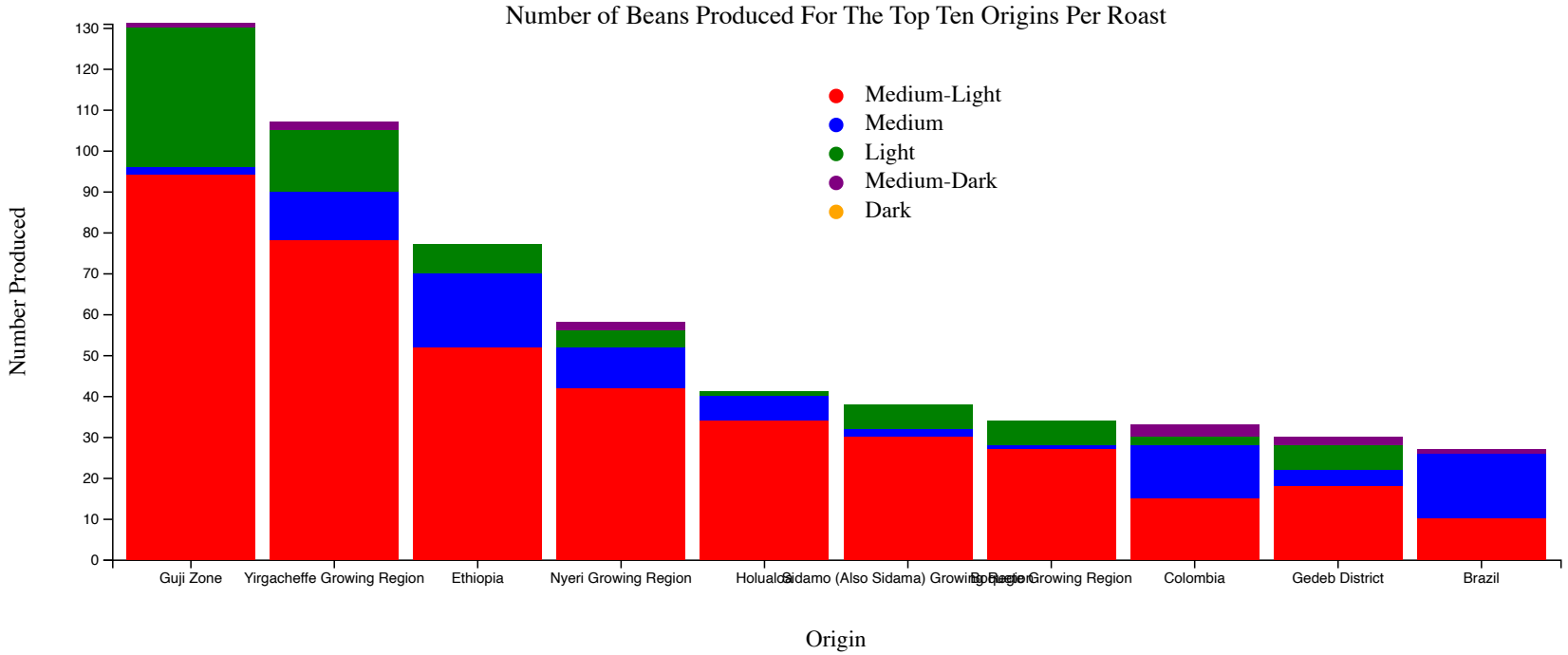


This visualization has a blue color scheme. This is mostly arbitrary however, red was avoided as it gives the connotation of "loss". Therefore, blue was chosen. The marks in this graph are lines with vertical positioning

and horizontal lengths.

Here, we can see from the data that not all of the countries process each roast of coffee. However, it can be observed that Hawaii and some of the Asian countries generally remain at the top regarding the average price for each roast. What this visualization may suggest is that these companies may use certain techniques not used by other countries to produce higher quality coffee. We can also see that the light and medium-light roasts have higher average prices than the medium, medium-dark, and dark roasts. This also suggests that light and medium-light roast coffee are more popular, and perhaps are generally higher quality

Now we will look at the top ten regions that produces the most beans per roast. That is the the ten origins of coffee beans.

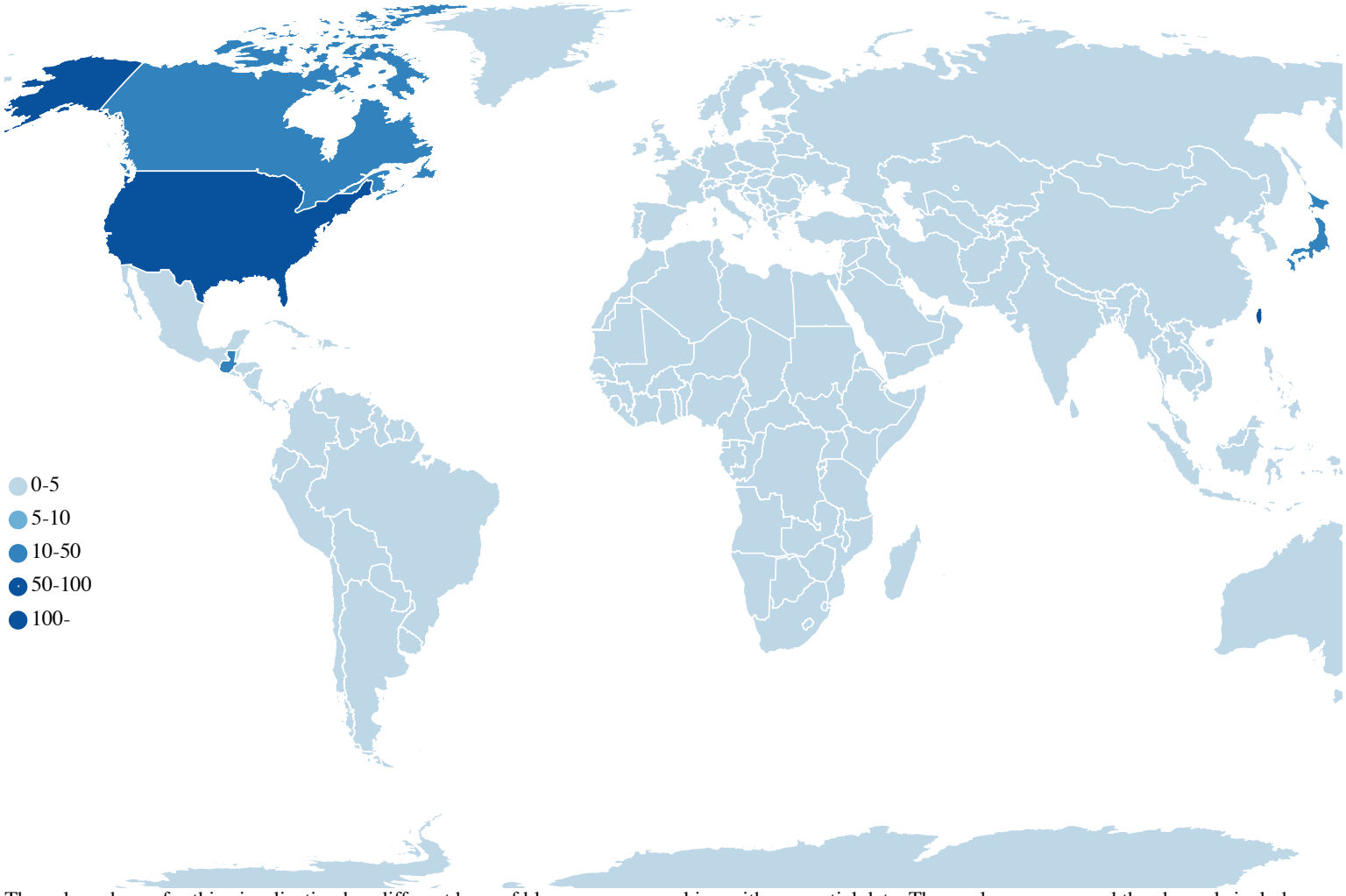


This visualization has the same color scheme as the first visualization for the same reason. There are different groups for each region, and we want to see each group clearly. The marks are lines with horizontal positioning and vertical lengths

In this visualization, we can see a clear trend. For the top ten producers, each origin mostly produces medium-light beans followed by medium and light roasted beans, then medium-dark, and lastly no dark roasts are produced. By looking at this and previous data, we can see that medium-light roasted coffee

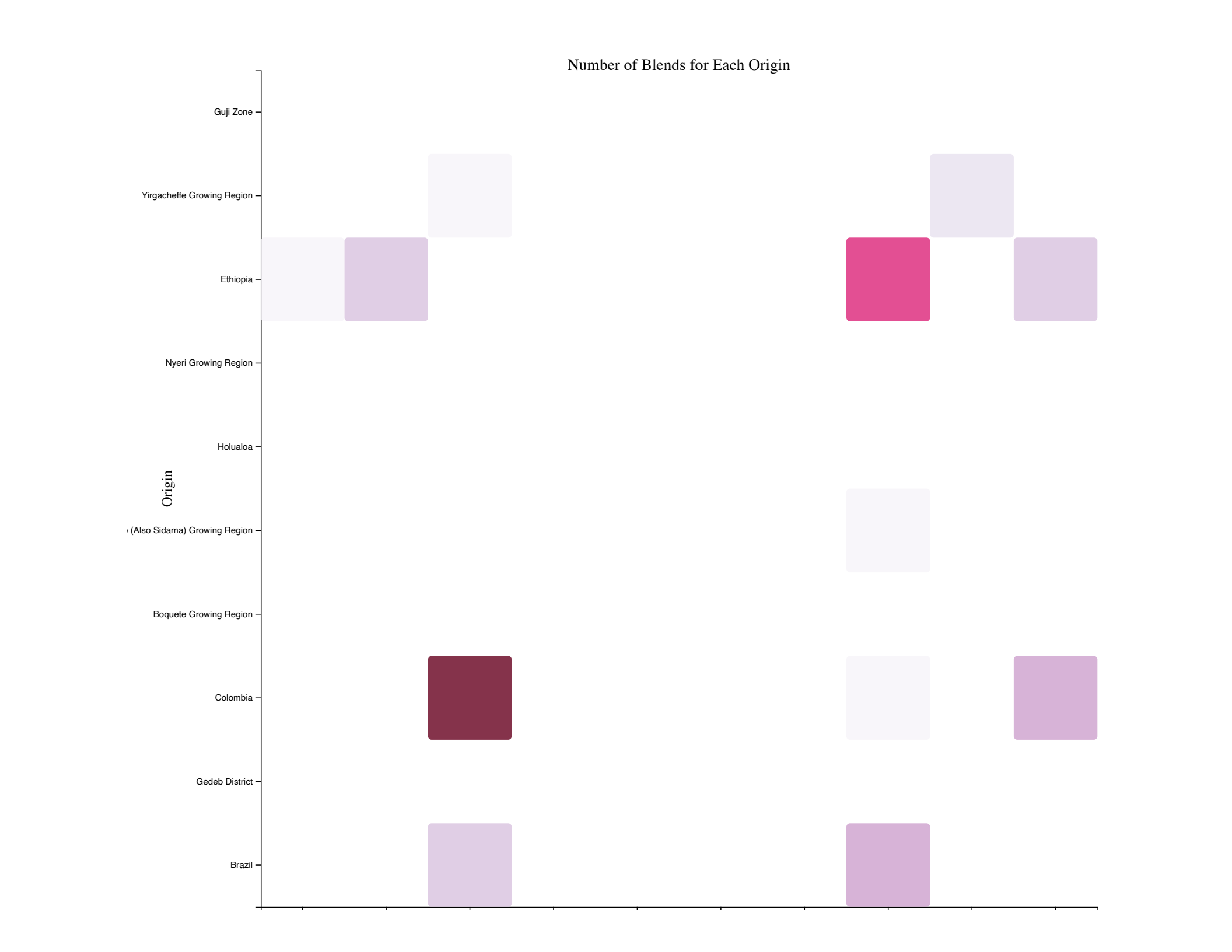
has been the most popular type of coffee among the data. We can also say that these origins produce high quality medium-light coffee as seen through the prices and ratings.
Going back to countries, we will look at which countries have the most coffee processors. More specifically, which countrie contain the most coffee roasters, which process the coffee? In the dataset used for this project, only certain countries are included, so there is not enough data to see how many beans are processed by other countries.

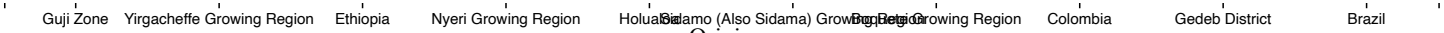
Profit and Sales For Furniture Per State



The color scheme for this visualization has different hues of blue as we are working with sequential data. The marks are areas and the channels include color saturation.

By looking at the map, we can see that the North American countries, Canada and The United States, contain the greatest amount of coffee roasters. This may say something about the quality of coffee beans that are processed in these countries especially The United States. We saw in a previous visualization that Hawaii consistently remained at the top of the list in terms of average coffee price, suggesting that the coffee processed there is of high quality.
Lastly, we will look at the relationships between the top ten origins with the highest number of beans produced. We want to see which two combinations of origins produce the most coffee, since a bean can have more than one origin.


Number of Blends for Each Origin
Origin
Guji Zone
Yirgacheffe Growing Region
Ethiopia
Nyeri Growing Region
Holualoa
(Also Sidama) Growing Region
Boquete Growing Region
Colombia
Gedeb District
Brazil



The color scheme for this visualization has different hues of purple as we are also working with sequential data. The marks are lines and the channels include color saturation.

In this visualization, we can clearly see that the regions Colombia and Ethiopa both produce the greatest amount of the same coffee, followed by Brazil and Colombia. What this suggests is that these Regions may produce high quality coffee and maybe the countries like the United States that contain the most processors import the coffee from Regions such as Ethiopia, Colombia, and Brazil.