



## Introduction

Through time we have seen changes around the world where the environment changes totally. This provides a series of problems that puts the survival of humanity at a disadvantage. In this role, you will find the best way to live in a dry and hot environment. Based on studies done in the past where shade was experimented with to create a thermal change in the research area.

## Questions

- 1- What percentage of people in Hermosillo have a shading device in their homes?
- 2- What is the most used shading method within the Montecarlo Residential?
- 3- Will it be possible to provide thermal comfort inside the houses in Montecarlo based on the methods used in the different houses?

## Site Analysis



This research focused on the Residencial Montecarlo located in the southwestern area of the city of Hermosillo, Sonora. Geographic information was used to identify the difference in house space, bare ground, impervious areas, and vegetation.

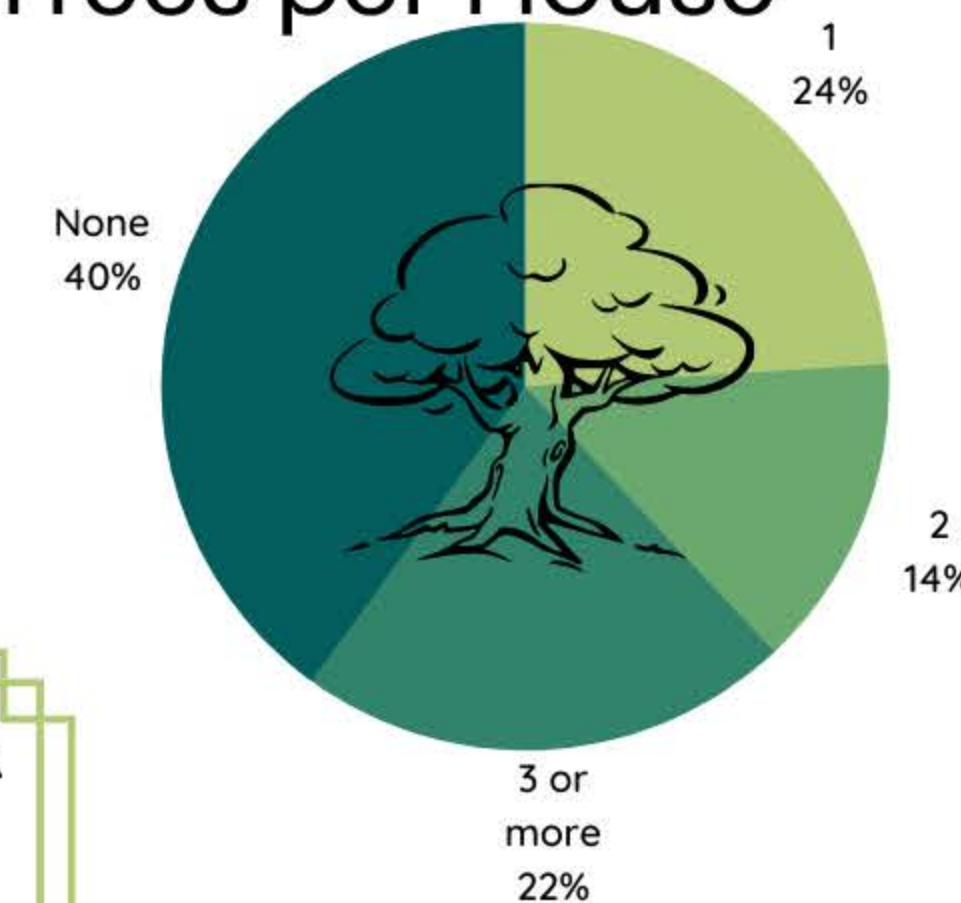
## Methodology

A special online questionnaire was created to identify the shading method used in each house in order to identify the most common method. In addition to identifying which of these provides more satisfaction to each person and/or family. Within this questionnaire, different points are mentioned that are critical to find out if the method they use causes any positive effect in each house.

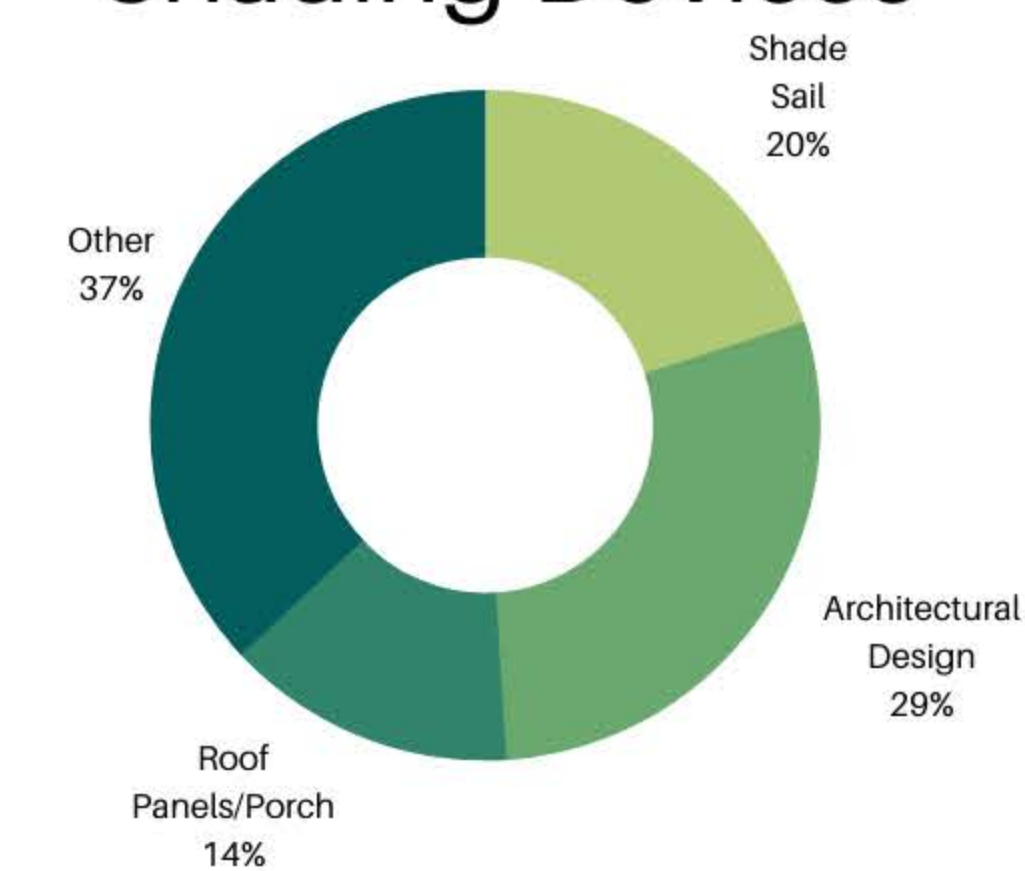
## Results

**50%** of the participants have a shading devices

### Trees per House



### Shading Devices



90 % of the participants indicated that they did not feel comfortable without the use of an air conditioner.



## Conclusion

Designs are only done for aesthetics and not to benefit the buyer or owner. The results show that people are interested in using more trees/vegetation as a solution to this dry and hot environment. However, not everyone uses this method simply because it is time-consuming or difficult to maintain in a warm environment. People who have shading devices if they feel a change during certain seasons of the year. However, in the summer the heat becomes so strong that the function of the shade does not perform well in creating thermal comfort. Summer and spring are times when the people of Hermosillo tend to resort to other methods to be comfortable inside their homes.