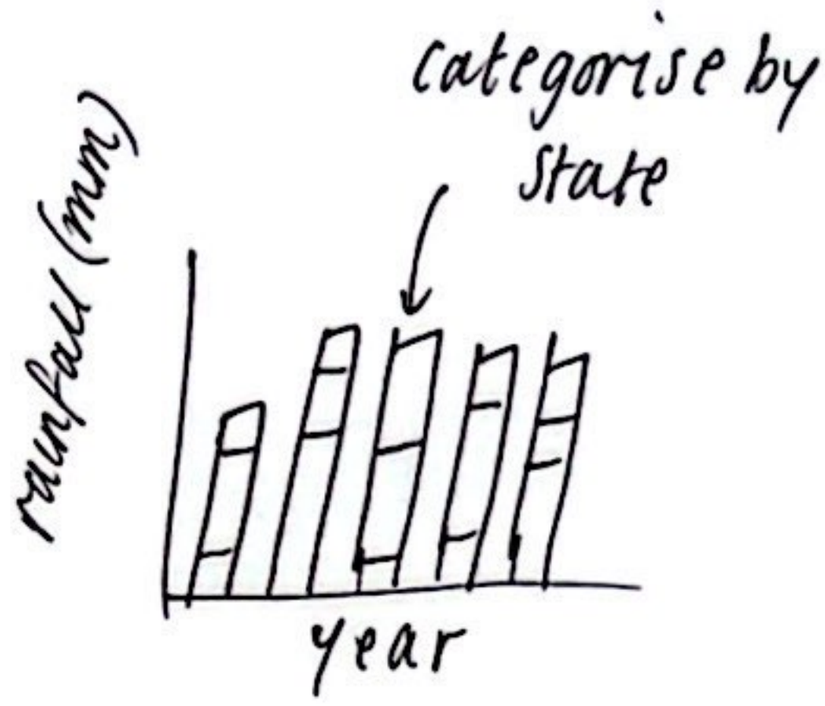
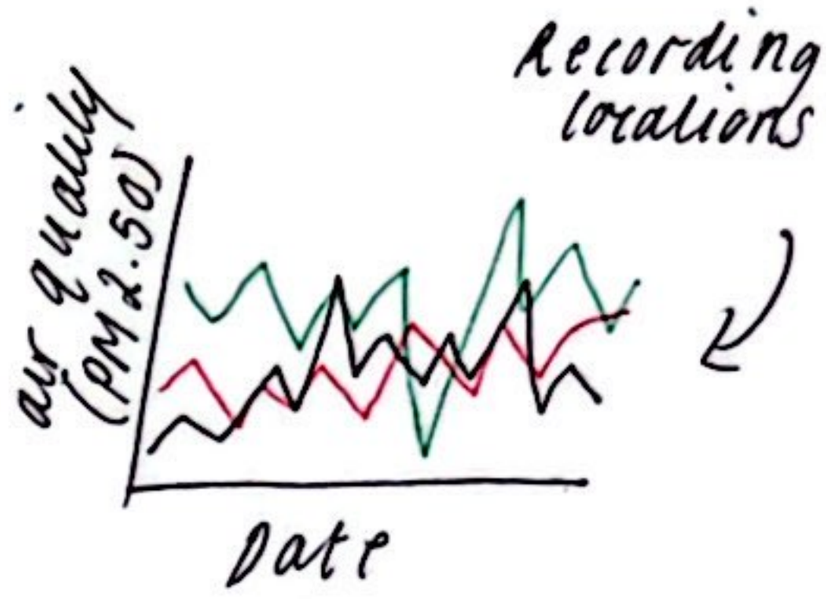
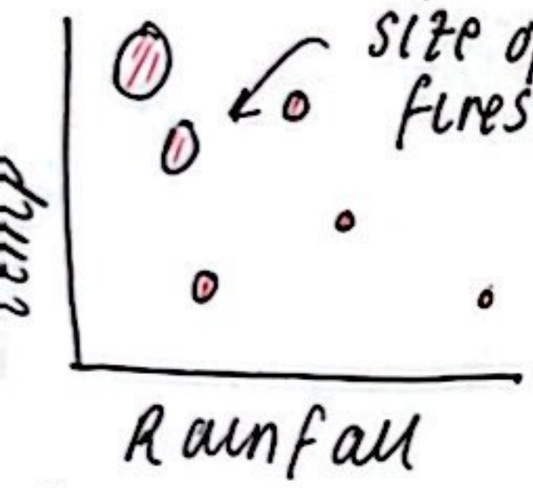
IDEAS!!

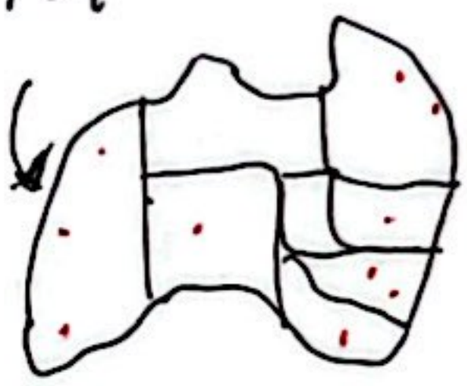




categorise by animal type } # of animals affected

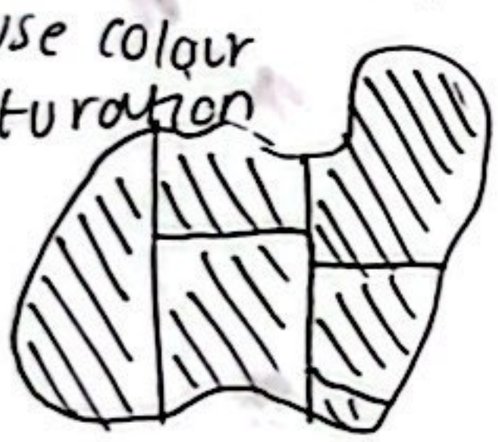
Instance of fire



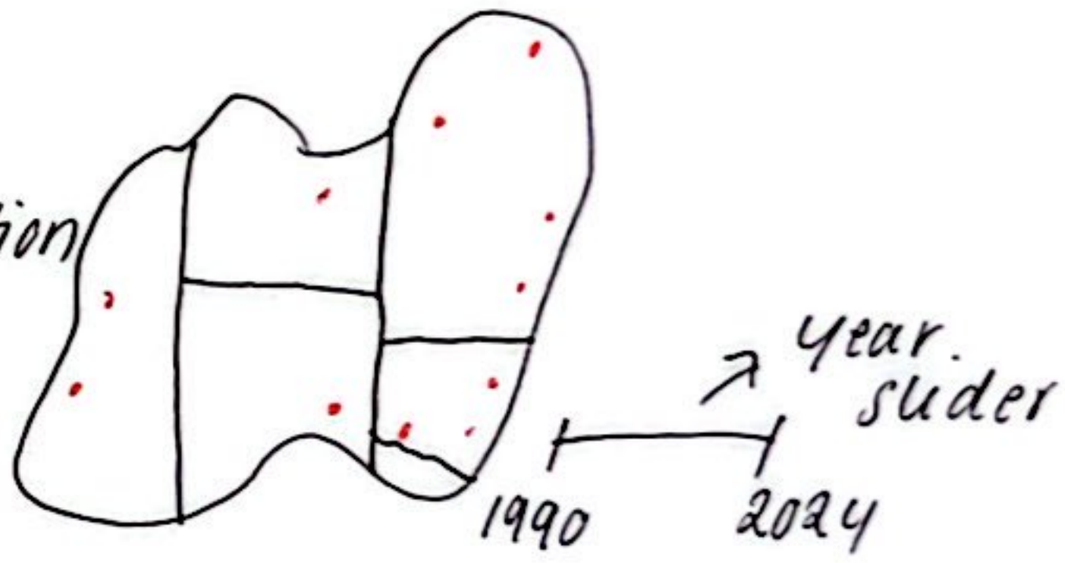


fire intensity 2019

% forest burnt per state
- use colour saturation



Rainfall (mm)
~ use colour saturation



FILTER

~ certain plots may be impossible due to no access to data
e.g heat map as of fire intensity due to absence of data available.
~ similar to rainfall as well ~ not applicable.
- May be difficult to correlate rainfall/ flame w/ size.

categorise

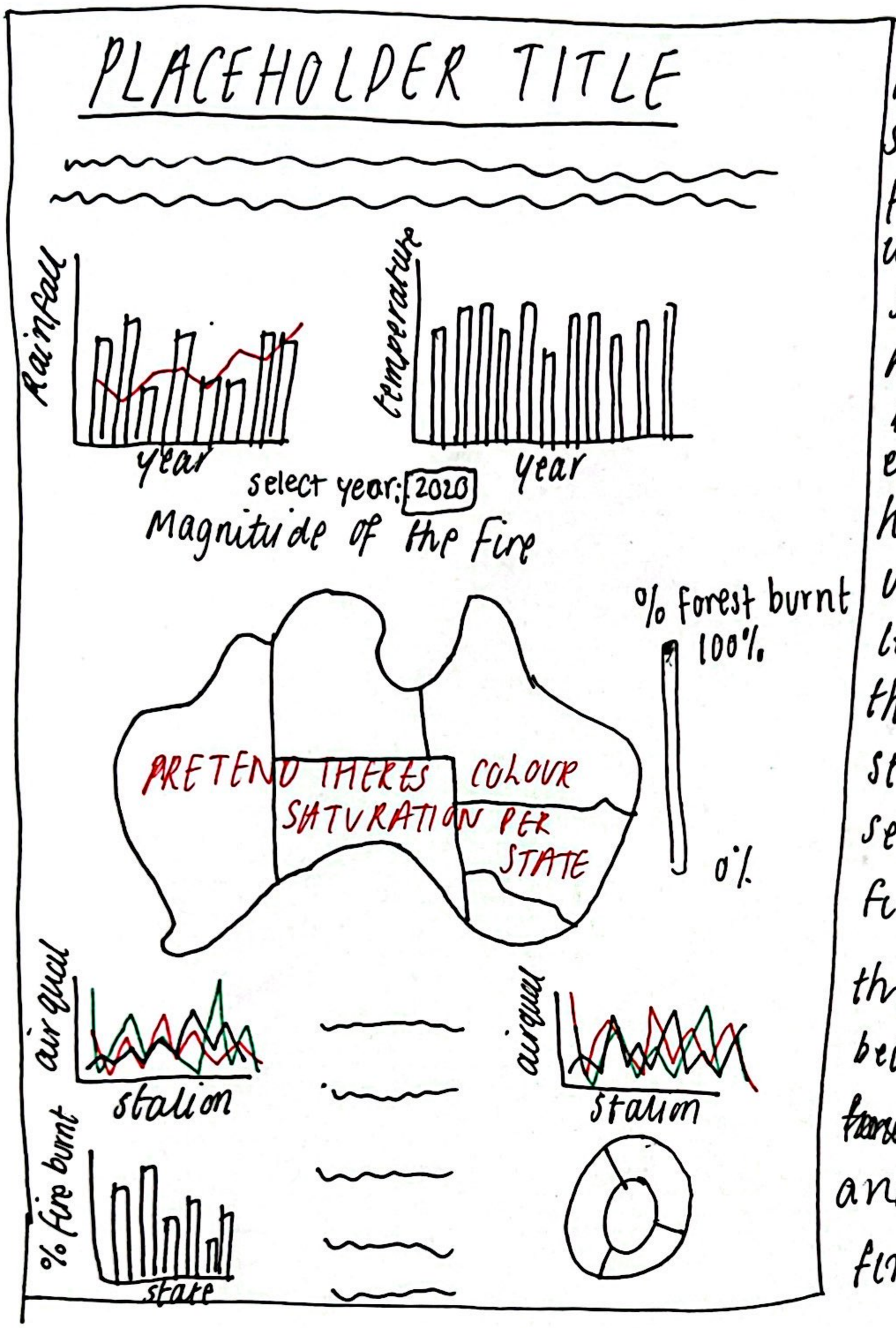
~ Before fire
: temperature
& Rainfall
~ During fire
: Map of % forest burnt
: Effect on air quality
~ After
• Effect on ecological, financial and livelihood.

Combine & Refine

~ can look to combine visuals w/ same x-y axis and have the option to filter between different views to reduce clutter.

layout

title: 2019/2020 Australian Megafire



Author: Adam Tran
Date 27/09/2024
Sheet: 2.

Focus: The visualisations ullimately attempt to tell a story ita about the 2019/2020 Australian bushfire. This is to be achieved by using visual elements to create a visual hierarchy, that allows the users to understand the lead up to the fire by exploring the climate (rainfall & temp) stacked below that is the section on the impacts of the fire, where users learn about the effects of the fire, by being exposed to a map of forest fire areas that were forest, and effect on air quality, ecology, finiancial and environmental.

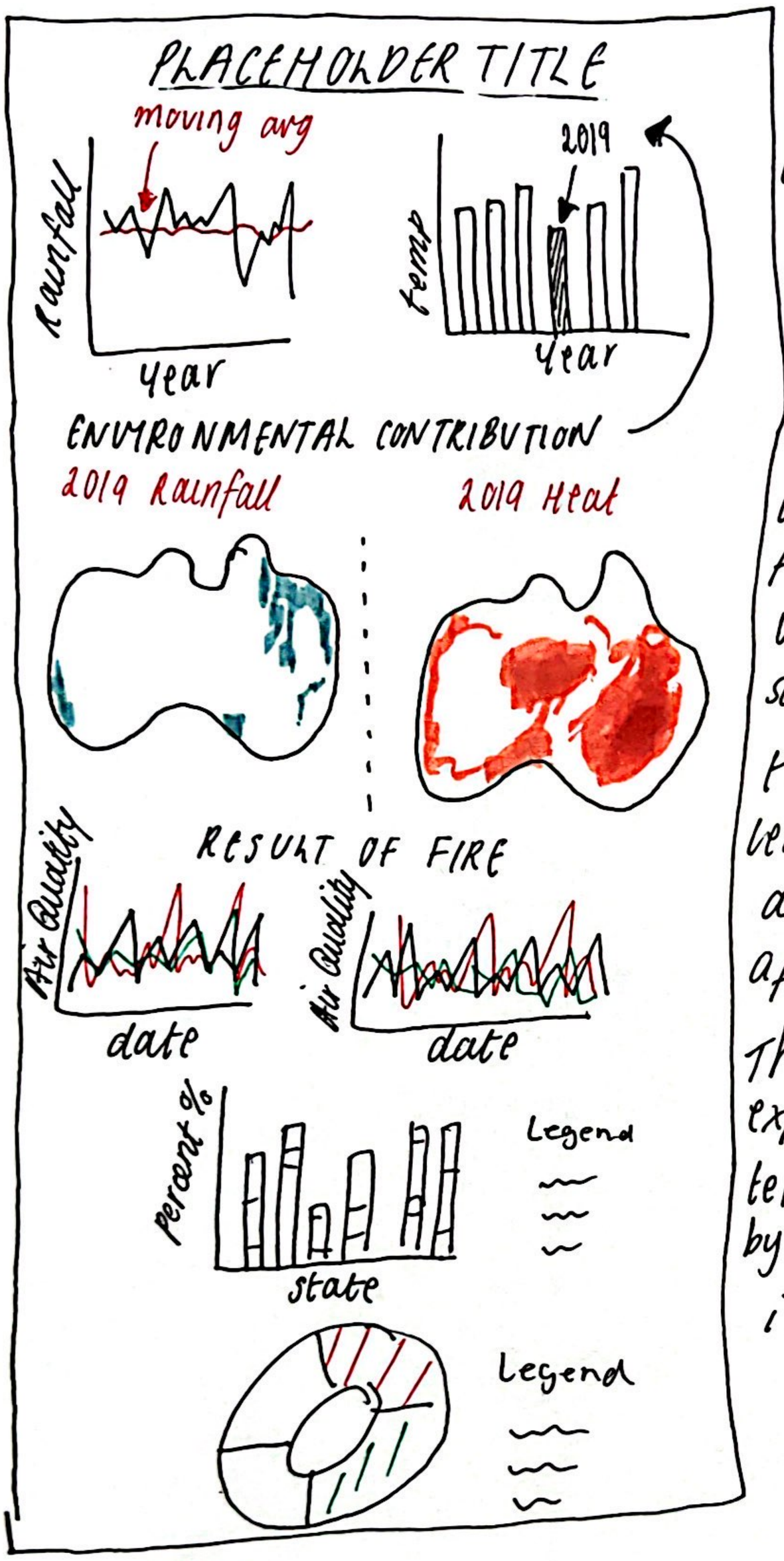
Operations

Bar chart: Hover highlights bar & reveals tooltip. Users can also select specific years or a period of time e.g last 10 years.
Map: Hover reveals tooltip.
Muliple-line: Can isolate certain lines by clicking on attribute in legend.

stacked bar } Hovering interaction
donut chart } reveal information

Discussion: I think the overall design is decent, however, improvements can be made to the bottom half, which I feel is quite cluttered. Plots chosen, while simple, I believe best illustrate the data.
Need to make sure plots are organised in a manner that's logical & easy to follow without confusion.

ayout



Operations

~ each plot is equipped with a tooltip allowing to clear analysis.

~ for the bar plot eg (rainfall & temp) users are able to select the date.

~ for the air quality map, users are able to highlight certain lines to improve readability.

title : 2019/2020 Australian Megafire

Author: Adam Tran

Date : 27/09/2024

sheet: 2

Focus. This visualisation layout had a large focus on visual hierarchy to ensure that the audience were able to make the way throughout the visualisation. without straying away & getting distracted, which would deter from the understanding as there wouldnt be flow. In addition to the visual hierarchy we've also created storytelling by categorising the page into ~~three~~ two sections, the environmental condions ~~which~~ leading up to the Megafires and finally a section focussed on exploring the aftermath.

The visualisation uses a line plot and bar explore the before by visualising rainfall & temperature. The after effect is explored by utilising map, line bar and donut idioms.

Discussion.

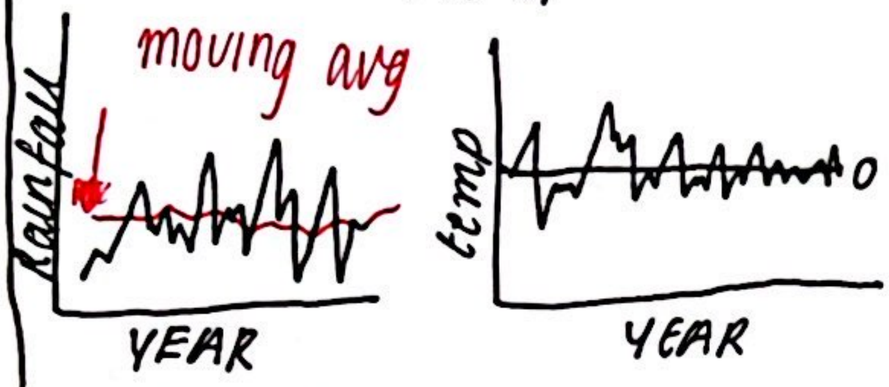
This visualisation has been constructed well as I believe that it can be followed logically, with a clear story lead up & after effect. My only criticism here is the line plot of the moving average. If not done well, users may have difficulty deciphering.

Layout

PLACEHOLDER TITLE

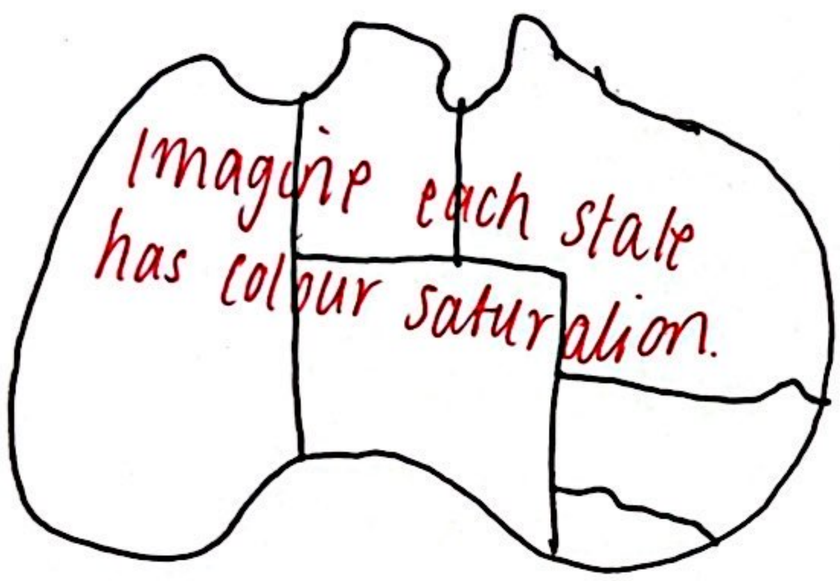
PREFACE

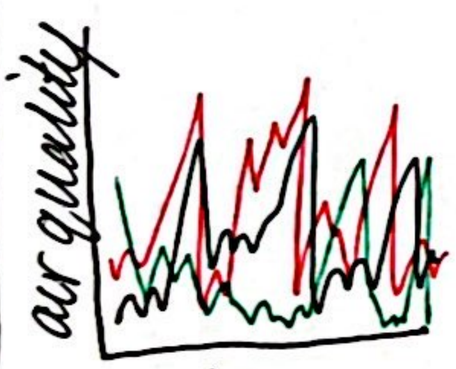
BEFORE: THE LEAD UP

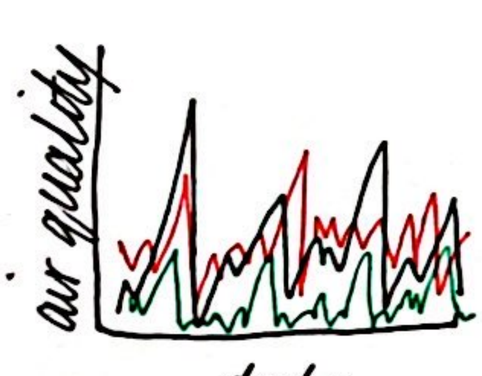


During: Country Ablaze

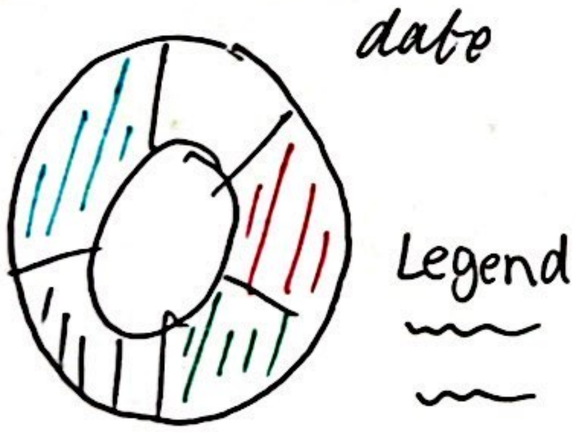
% of fire that's forested!







After:



Title: 2019/2020 Australian Megafire

author: Adam Tran

date: 27/09/2024

sheet: 4

Focus: This visualisation seeks to create flow through three distinct section & visual hierarchy through usability elements. Notably, the story telling have been improved to categorise the plots into distinct headers.

Before the blaze, during the blaze and after the blaze. We felt that this was necessary to improve the usability aspect ~ reducing clutter and improving readability. In the before section, we'll have a preface, two bar plot and a summarising paragraph. In the during we'll have a choropleth map to represent % of fires that were forest, and 2 multiple-line plots to represent the effect on air quality. Finally for the aftermath, we'll have a donut plot to represent the effect on surrounding ecological environment.

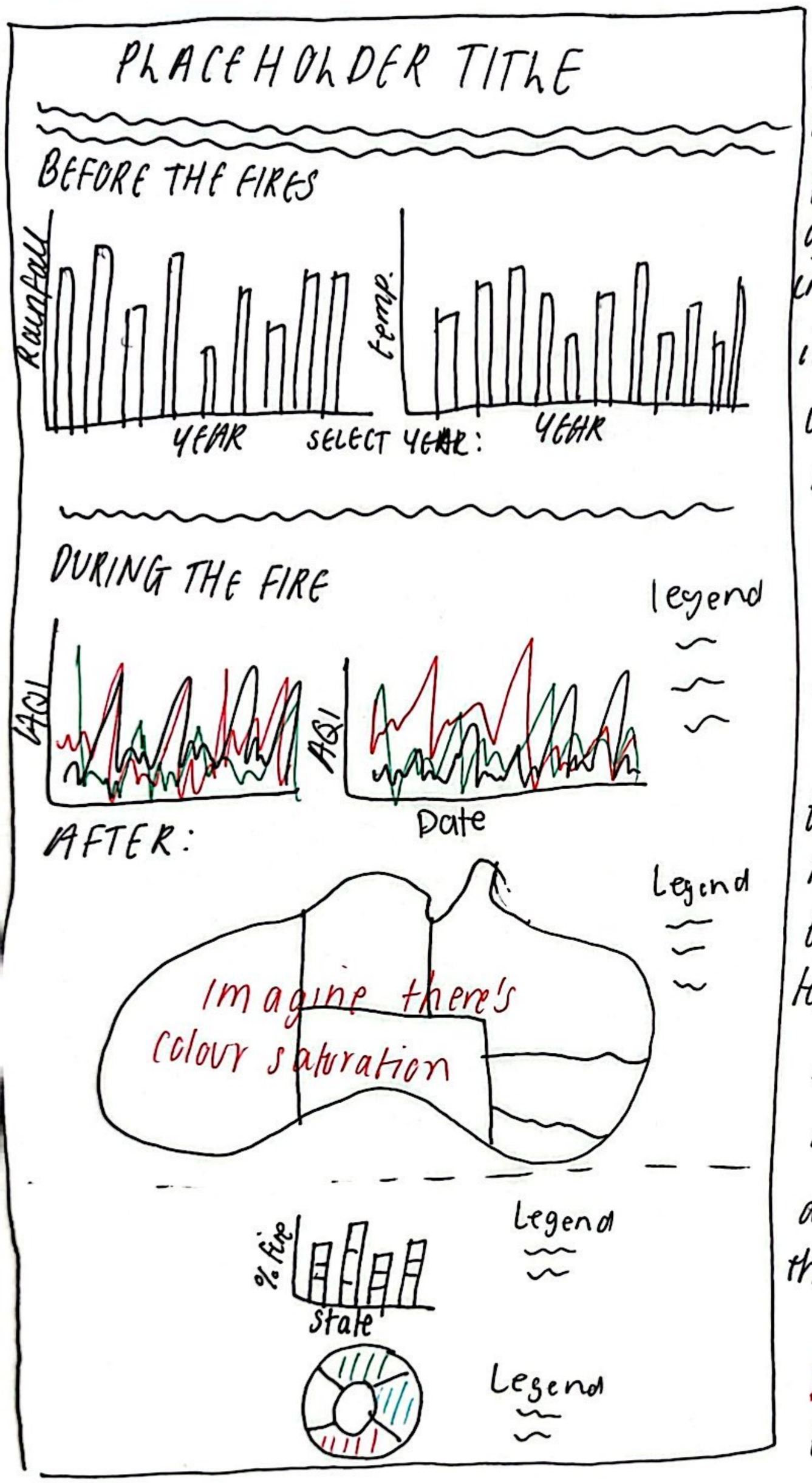
FILTER OPERATIONS

- All plots will be equipped with a tooltip to allow analysis upon hover.
- for the bar chart which records rainfall & temp, we'll have an option for audiences to select dates e.g last 10 years or

Discussion.

This visualisation has been done well, however, perhaps more idioms/images can be utilised for the 'after', as it doesn't really have much substance

layout



title: 2019/2020 AUSTRALIAN MEGAFIRE
Author: Adam Tran
Date 27/09/2024
sheet 5.
Focus: this design mockup seeks to combine all favourable aspects, while also considering the possibility of certain implementation. The final design continued with it's established visual hierarchy & story telling by stacking the visualisations into three distinct categories which explore different ideas. Specifically, we endeavour to use different idioms to explore the before, during and after of the Megafires. A bar plot has been chosen to explore both the rainfall & temperature. A multiple line plot has been used to visualise the ~~effect~~ on air quality, and finally a choropleth and stack bar & donut to investigate the aftermath.

Details

time prediction: approximately 3 weeks to collect data, Clean data, create visualisation on Vegalite and to the combine everything in a final HTML; while adhering to design principles.

- software used: Vegalite, VSCode, computer, websites for resources.

Operations.

all plots are equipped w/ tool tip.
bar plot w/ date (xaxis) have ability to select date. Hover also highlights.
Multiple line ~ option to highlight & isolate certain stations, allowing for filtering to take place.